2012-2013 Catalog, Volume 45

CNM Admission & Diversity

Central New Mexico Community College 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, sexual orientation or marital status. It is the policy of the college not to discriminate on the basis of sexual orientation, marital status or ancestry.

We want your feedback on the CNM academic catalog. Let's make it better.

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Table of Contents

About CNM iii

Educational Options vii

Programs of Study 1

Course Descriptions 174

About CNM

WELCOME, THANK YOU FOR YOUR INTEREST IN
CENTRAL NEW MEXICO COMMUNITY COLLEGE (CNM)

As a community college serving the state's most densely populated region, we are dedicated to providing our very diverse community members with as many pathways as possible to educational and career success. In this online course catalog, which contains more courses and more program offerings than any community college in New Mexico, I'm confident that you'll find the courses and the certificate or degree programs that will enhance 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 online 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.

President Katharine W. Winograd, Ed.D.

History

CNM Philosophy on General Education

About This Catalog

CNM Today

With an enrollment of more than 29,000, CNM is the largest higher education institution in New Mexico in terms of enrollment. 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 the Rio Rancho Campus, the South Valley Campus, the Westside Campus, the Advanced Technology Center and the CNM Workforce Training Center.

Advisory committees that include representatives from local businesses and industries help CNM develop programs to ensure that CNM students acquire the skills needed for success in the workplace. The college also has a growing number of student transfer articulation agreements with four-year institutions, including the University of New Mexico.

Funding for CNM comes from a property tax levy in the college's service district and annual appropriations by the New Mexico Legislature. Tuition and fees are very affordable and financial aid and other scholarship opportunities are available to those who qualify.

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). Condensed courses and nontraditional schedules, including evening and weekend classes, are available for many programs and courses. Many online distance learning courses are available and high school students can earn high school elective and college credit simultaneously through CNM's Dual Credit program.

Now in its fifth decade, CNM is a nationally accredited community college offering courses in a variety of occupational, college transfer and adult/developmental education subjects.

For 2012-13, credit programs at CNM include:

- Certificates in 80 disciplines, ranging from business to healthcare to technologies and trades
- Associate degrees in 43 programs, including career-technical fields and arts and sciences
- College transfer courses in more than 30 disciplines transferable for freshman and sophomore credit at four-year institutions
- Remedial, preparatory and developmental classes for students preparing to meet admission requirements for

college-level courses at CNM or other institutions
- **CNM non-credit programs include:**
- Adult education basic skills (including English as a Second Language and GED exam prep)
- Customized workforce training, courses for individual professional development and certifications, and other assistance to businesses through the CNM Workforce Training Center
- CNM also offers enrollment and college-credit opportunities for high-school-aged students. In addition, an increasing number of credit courses are offered online in innovative distance-learning formats designed to overcome barriers of time or space.

CNM also offers enrollment and college credit opportunities for high-school-aged students (see here). 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 here).

1. History

Authorized by the New Mexico Legislature in 1963, CNM was approved by district voters in 1964 to provide adults with the skills necessary to gain employment and succeed 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. 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. CNM Governing 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.

2. CNM Philosophy on General Education

CNM maintains that the general education component of each degree or certificate program is critical in 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 that develop abilities such 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 for the major disciplines and to 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.

1. Student Learning Outcomes

1. 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.

2. 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.

2. Assessment

CNM is dedicated to ensuring that all academic courses 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.

3. 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 of Colleges and Schools.

3. (505) 224-3000

CNM GOVERNING BOARD
Blair L. Kaufman, *Chair*
Bobby Matteucci, *Vice Chair*
Deborah Moore, *Secretary*
Mark Armijo
Michael DeWitte
Penelope S. Holbrook

CNM ADMINISTRATION
Dr. Katharine Winograd, *President*
Phillip Bustos, *Vice President of Student Services*
Dr. Sydney Gunthorpe, *Interim Vice President of Academic Affairs*
Kathy Ulibarri, *Vice President of Finance and Operations*

CNM MAIN CAMPUS
Student Services Address
900 University Blvd. SE
Albuquerque, NM 87106
Administration/Mailing Address
525 Buena Vista SE
Albuquerque, NM 87106

CNM JOSEPH M. MONTOYA CAMPUS
4700 Morris NE
Albuquerque, NM 87111-3704

CNM SOUTH VALLEY CAMPUS
5816 Isleta SW
Albuquerque, NM 87105

CNM WESTSIDE CAMPUS
10549 Universe NW
Albuquerque, NM 87114

CNM WORKFORCE TRAINING CENTER
5600 Eagle Rock Ave. NE
Albuquerque, NM 87113-1711

CNM RIO RANCHO CAMPUS
2601 Campus Blvd. NE
Rio Rancho, NM 87144

CNM ADVANCED TECHNOLOGY CENTER
4700 Alameda NE
Albuquerque, NM 87113

4. CNM 2012-2013 Catalog, June 2012, Volume 45: About This Catalog

The CNM Catalog is a student's official guide to programs, courses and policies at Central New Mexico Community College (CNM). The CNM Catalog is a summary of information of interest to students; it is not a complete statement of programs and policies.

Not all programs and classes listed in this Catalog are offered at all campuses or every term. If fewer than 12 students enroll in a course, the course may be cancelled. Not all courses will be offered every term.

Information in the CNM Catalog is subject to change.

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Educational Options

1. 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:

1. 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 need to have access to the internet, a compatible web browser and may need to purchase course-specific software.

2. 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 or lab 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 and the internet.

3. 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, the internet, a compatible web browser and may need to purchase course-specific software.

4. 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: MATH 0550, MATH 0750, MATH 0930, and MATH 0940.

5. Service Learning

The Service Learning program at Central New Mexico Community College (CNM) is committed to enhancing the educational experience of CNM students and providing the opportunity to students with an excellent avenue for personal and professional growth and to recognize their role as students, community members and leaders. Service-learning is a teaching and learning method that integrates meaningful community service with instruction and reflection to enhance the learning experience, teach civic responsibility, and strengthen communities.

Service learners serve to learn about course content and reflect upon how the experience has engaged them to serve in their communities while also becoming academically strong. Service learning is a blending of academic and/or occupational learning with service to the community containing a strong reflective component. Emphasis for the student is equally placed on the learning taking place and the service being provided.

Through service learning students use what they learn in the classroom to solve real-life problems. They not only learn the practical applications of their studies, they become actively contributing citizens and community members through the service they perform.

Service learning can be applied in a wide variety of settings. It can involve a group of students or an entire class. Students build character and become active participants as they work with others in their school and community to create service projects in areas such as education, healthy lifestyles, literacy, underage drinking, community activism, public safety, and the environment.

Contact: Service Learning (505)224-3068

6. 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.

Contact: Learning Communities

7. 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 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.

Air Force ROTC

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. Credits in Aerospace Studies may NOT be applied to any associate degree or certificate at CNM.

Contact: UNM Air Force ROTC (505) 277-4502

Army ROTC

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. Credits in Military Science and Leadership are currently NOT eligible to be applied to any associate degree or certificate at CNM.

Contact: UNM Army ROTC (505) 277-2250

Navy ROTC

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. Credits in Naval Sciences Studies are currently NOT eligible to be applied to any associate degree or certificate at CNM.

Contact: UNM Naval ROTC (505) 277-3744

Programs of Study

Accounting

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

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

Certificate and Degree Options

- Accounting, Certificate of Completion
- Bookkeeping, Certificate of Completion
- Certified Public Accountant (CPA) Academic Requirements, Certificate of Completion
- Payroll Clerk, Certificate of Completion
- Accounting, Associate of Applied Science

Accounting, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ACCT 1112 - Accounting IB 3 credit hour(s)
- ACCT 1120 - Payroll Accounting 3 credit hour(s)

- BA 1101 - Introduction to Business 3 credit hour(s)

or

- BA 1133 - Principles of Management 3 credit hour(s)

- ENG 1101 - College Writing 3 credit hour(s)

Term 3

- ACCT 1140 - Accounting Applications 3 credit hour(s)
- ACCT 1210 - Accounting II 3 credit hour(s)

- ACCT 2098 - Internship 3 credit hour(s)

  or

- ACCT 2095 - Cooperative Education 3 credit hour(s)

  or

- ACCT 1410 - Quickbooks Complete 3 credit hour(s)

- CIS 1173 - Excel Complete 3 credit hour(s)

Term 4

- ACCT 2101 - Intermediate Accounting IA 3 credit hour(s)

- ACCT 2340 - Tax Accounting 3 credit hour(s)

  or

- ACCT 1301 - Volunteer Tax Preparation 2 credit hour(s)

  and

- ACCT 1398 - Volunteer Tax Internship 1 credit hour(s)

- ACCT 2420 - Computerized Accounting 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Certificate in Accounting 49 credit hour(s)

Bookkeeping, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ACCT 1112 - Accounting IB 3 credit hour(s)
- ACCT 1120 - Payroll Accounting 3 credit hour(s)

- BA 1101 - Introduction to Business 3 credit hour(s)

  or

- BA 1133 - Principles of Management 3 credit hour(s)

- BA 1121 - Business English 3 credit hour(s)

  or

- ENG 1101 - College Writing 3 credit hour(s) (accounting certificate and degree students must choose ENG

1101)
-

Term 3

- ACCT 1140 - Accounting Applications 3 credit hour(s)
- ACCT 1210 - Accounting II 3 credit hour(s)
- CIS 1173 - Excel Complete 3 credit hour(s)
- ACCT 2098 - Internship 3 credit hour(s)

  or
- ACCT 2095 - Cooperative Education 3 credit hour(s)

  or
- ACCT 1410 - Quickbooks Complete 3 credit hour(s)

Certificate in Bookkeeping 36 credit hour(s)

Certified Public Accountant (CPA) Academic Requirements, Certificate of Completion

Program Description

The Certified Public Accountant (CPA) Academic Requirements, Certificate of Completion provides 30 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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Bachelor's Degree
- Department Approval Program

Term 1

- ACCT 1111 - Accounting IA 3 credit hour(s)

  and
- ACCT 1112 - Accounting IB 3 credit hour(s)

  or
- ACCT 1110 - Accounting I 6 credit hour(s)
- BA 2240 - Business Law 3 credit hour(s)

Term 2

- ACCT 1210 - Accounting II 3 credit hour(s)
- ACCT 2101 - Intermediate Accounting IA 3 credit hour(s)
- ACCT 2341 - Tax Accounting II 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)

Term 3

- ACCT 2102 - Intermediate Accounting IB 3 credit hour(s)
- ACCT 2103 - Intermediate Accounting II 3 credit hour(s)
- ACCT 2520 - Auditing 3 credit hour(s)

- Program Approved Elective 3 credit hour(s)

Certificate of Completion in Certified Public Accountant Academic Requirements 33-36 credit hour(s)

Program Approved Electives

- ACCT 1096-1996 - Special Topics 1-6 credit hour(s)

  and/or

- ACCT 2096-2996 - Special Topics 1-6 credit hour(s)

- ACCT 2230 - Cost Management Accounting 3 credit hour(s)
- ACCT 2340 - Tax Accounting 3 credit hour(s)
- ACCT 2420 - Computerized Accounting 3 credit hour(s)
- ACCT 2510 - Governmental Accounting 3 credit hour(s)

Payroll Clerk, Certificate of Completion

Program Description

The Payroll Clerk Certificate of Completion is a series of courses that provide entry-level skills in payroll accounting.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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.

Students should see an academic advisor to customize their educational plans.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 1 Proficiency
- Math 2 Proficiency (Recommended)
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ACCT 1112 - Accounting IB 3 credit hour(s)
- ACCT 1120 - Payroll Accounting 3 credit hour(s)

- BA 1121 - Business English 3 credit hour(s)

  or

- ENG 1101 - College Writing 3 credit hour(s) (accounting certificate and degree students must choose ENG 1101)

Certificate of Completion in Payroll Clerk 21 credit hour(s)

Accounting, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ACCT 1112 - Accounting IB 3 credit hour(s)
- ACCT 1120 - Payroll Accounting 3 credit hour(s)

- BA 1101 - Introduction to Business 3 credit hour(s)

  or

- BA 1133 - Principles of Management 3 credit hour(s)

- ENG 1101 - College Writing 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096) (MATH 1315 is recommended)

Term 3

- ACCT 1140 - Accounting Applications 3 credit hour(s)
- ACCT 1210 - Accounting II 3 credit hour(s)

- ACCT 1410 - Quickbooks Complete 3 credit hour(s)

  or

- ACCT 2095 - Cooperative Education 3 credit hour(s)

  or

- ACCT 2098 - Internship 3 credit hour(s)

- CIS 1173 - Excel Complete 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)

Term 4

- ACCT 2101 - Intermediate Accounting IA 3 credit hour(s)

- ACCT 2340 - Tax Accounting 3 credit hour(s)

  or

- ACCT 1301 - Volunteer Tax Preparation 2 credit hour(s)

  and

- ACCT 1398 - Volunteer Tax Internship 1 credit hour(s)

- ACCT 2420 - Computerized Accounting 3 credit hour(s)
- BA 2240 - Business Law 3 credit hour(s)

Term 5

- ACCT 2102 - Intermediate Accounting IB 3 credit hour(s)
- ACCT 2230 - Cost Management Accounting 3 credit hour(s)
- ACCT 2999 - Capstone Course 1 credit hour(s)
- Choice Requirement 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)
- Accounting, Associate of Applied Science 67 credit hour(s)

Program Approved Electives

- ACCT courses not used elsewhere 3-4 credit hour(s)
- FIN 1100 - Principles of Banking 3 credit hour(s)
- FIN 1310 - Fundamentals of Risk Management and Insurance 3 credit hour(s)
- FIN 2210 - Finance 3 credit hour(s)

- CIS 1183 - Access Complete 3 credit hour(s)
- BA 1115 - Web Business 3 credit hour(s)

Advanced Systems Technology

Program Description

Electronics, photonics and MEMS (Micro Electro Mechanical Systems) are fundamental to the operation of most of today's products and infrastructure. CNM's Advanced Systems Technology program enables its students to succeed in all three technologies making its graduates well prepared to contribute to these high tech industries.

The Automation and Telecommunication concentration provides its students with the analog and digital theory and hands-on experience to get them started in the high tech career of industrial automation and control, and the fast growing telecommunications industry. Robotic automation, microcontroller, PLD programming and systems troubleshooting drive the hands-on experiments done in each of the courses taught in this program. The program provides the opportunity to obtain 6 Certifications in fields such as electronic assembly, PC maintenance, LabVIEW programming, and the numerous fields listed under the Electronics Technicians Association, as well as an Associate's degree.

Electrical and electronic engineering technicians help engineers design and develop computers, communications equipment, medical monitoring devices, navigational equipment, and other electrical and electronic equipment. They often work in product evaluation and testing, using measuring and diagnostic devices to adjust, test, and repair equipment.

The Microsystems and Laser Optics Concentration provides its students the Laser, optics, and microsystems applications, fabrication and hands-on experiments to prepare its graduates for a successful career in contributing to high tech industry and laboratories. The program of study uses facilities containing modern equipment for testing, troubleshooting, calibrating, analyzing, designing and fabricating electronic and microsystems for processing wafers in both MEMS and SMT applications.

Microsystems lab classes are held at the University of New Mexico's Manufacturing Training and Technology Center clean room which makes use of research grade fabrication processes and tools. Micro-electromechanical systems (MEMS)—Microsystems Technology (MST), also known as Micro-Machines, are an increasingly pervasive in our daily lives. Smartphones and tablets feature an array of MEMS, from auto focusing micro cameras, pico projection, motion and tilt sensors, to touch screens, microphones and speakers. MEMS are present in automotive crash and rollover safety, navigation, fuel economy and emissions control systems. Microsystems are also found in bio chemical and medical applications including chemical sensor arrays, pace-makers, pressure sensors, cochlear and artificial retina implants, microfluidic drug delivery systems and "chem lab on a chip" diagnostic application. These systems can sense, think and actuate! Many of these microsystems require not only an understanding of device fabrication and electronics but also photonics (optics). Additional laboratory facilities provide the ability to analyze and test various materials and components such as fiber optic cabling, alignment, and applications of optics in the laser industry. Students study the laser, both as an instrument and as an integral part of a system designed for industrial application and scientific research. The laser optics classes cover topics such as laser alignment, safety and the use of lasers in electronics production, testing and maintenance - students acquire a hands-on skills and knowledge of light, geometrical and physical optics, optical components and systems.

Recommended Sequence of Courses

Gainful Employment information is available from Job Connection Services.

Certificate and Degree Options

- Advanced Systems Technology, Associate of Applied Science

Advanced Systems Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- ELEC 1004 - DC and AC Circuits 4 credit hour(s)
- ELEC 1092 - DC and AC Circuits Lab 2 credit hour(s)

- MATH 1310 - Intermediate Algebra 4 credit hour(s) or higher

- MEMS 1002 - Introduction to MEMS Theory 2 credit hour(s)

  and

- MEMS 1092 - Introduction to MEMS Lab 1 credit hour(s)

- PHOT 1003 - Fundamentals of Photonics 3 credit hour(s)

Term 2

- ELEC 1101 - Digital Circuits Concepts and Design 3 credit hour(s)
- ELEC 1192 - Digital Circuit Concepts and Design Lab 2 credit hour(s)
- ELEC 1202 - Semiconductor/Solid State Devices 3 credit hour(s)
- ELEC 1292 - Semicon/Ssdev Lab 2 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 3

- ELEC 2010 - Intro/Embedded Sys 4 credit hour(s)

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

- MEMS 1101 - Plasma – RF – Vacuum Systems Theory 2 credit hour(s)
- MEMS 1192 - Plasma – RF – Vacuum Systems Lab 2 credit hour(s)

Concentrations

- Automation and Communication Concentration
- Microsystems and Laser Optics Concentration

Automation and Communication Concentration

Term 4

Automation and Communication

- CHEM 1710 - General Chemistry I 3 credit hour(s)

  and

- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)

  or

- PHYS 1510 - Physics I 4 credit hour(s)

  and

- PHYS 1592 - Physics I Laboratory 1 credit hour(s)

- ELEC 1022 - Soldering Standards 2 credit hour(s)
- ELEC 1301 - Electromechanical Devices & Systems 3 credit hour(s)
- ELEC 1393 - Electromechanical Devices & Systems Lab 2 credit hour(s)
- ELEC 2020 - Upgrading and Repairing PCs 3 credit hour(s)

Term 5

Automation and Telecommunication

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- ELEC 1401 - Telecommunications Circuits & Systems 3 credit hour(s)
- ELEC 1492 - Telecommunications Circuits & Systems Lab 2 credit hour(s)
- ELEC 2040 - Systems Simulation 3 credit hour(s)
- ELEC 2999 - Capstone 2 credit hour(s)

Microsystems and Laser Optics Concentration

Term 4

- Microsystems and Laser Optics
- CHEM 1710 - General Chemistry I 3 credit hour(s)

  and

- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)

  or

- PHYS 1510 - Physics I 4 credit hour(s)

  and

- PHYS 1592 - Physics I Laboratory 1 credit hour(s)

- MEMS 2102 - Manufacturing Process Theory 2 credit hour(s)
- MEMS 2192 - Manufacturing Process Lab 1 credit hour(s)
- MEMS 2206 - MEMS Design Theory 2 credit hour(s)
- MEMS 2292 - MEMS Design Lab 1 credit hour(s)
- PHOT 2003 - Photonics and Laser Systems 4 credit hour(s)

Term 5

Microsystems and Laser Optics

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s) or higher
- MEMS 2015 - MEMS Manufacturing Technology Theory 3 credit hour(s)
- MEMS 2092 - MEMS Manufacturing Technology Lab 2 credit hour(s)
- PHOT 2013 - Advanced Photonics and Laser Systems 5 credit hour(s)

Associate of Applied Science in Advanced Systems Technology 74-75 credit hour(s)

Alternative Teacher Licensure

Program Description

CNM offers a state-accredited program based on NCATE standards for Alternative Teacher Licensure with certificates in, Early Childhood Multicultural Education, Elementary Education, Secondary Education, and Special Education. For students currently in the Alternative Teacher Licensure Program or licensed teachers, CNM offers coursework that can be applied to endorsements in Gifted Education, Teaching English to Speakers of Other Languages and Bilingual Education. For students currently in the Alternative Teacher Licensure Program or licensed teachers, CNM offers coursework that can be applied to endorsements in Gifted Education, Teaching English to Speakers of Other Languages (TESOL) and Bilingual Education. For more information, visit the program website.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Upon successful completion of these certificate programs and required state exams, candidates are eligible to apply for a 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 seven years of teaching, teachers can earn a base salary of $50,000.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

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.

Exit competencies for this program are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section.

Certificate and Degree Options

- ATL-Early Childhood Multicultural Education Certificate of Completion
- ATL-Elementary Education Certificate of Completion
- ATL-Secondary Education Certificate of Completion
- ATL-Special Education Certificate of Completion

ATL-Early Childhood Multicultural Education Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- Coordinated Entry Program

Program Requirements

This program's first term courses are offered fall term and spring term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- ECME 2250 - Foundations of Early Childhood Education 3 credit hour(s)
- ECME 2252 - Teaching Young Children 3 credit hour(s)
- ECME 2254 - Developmentally Appropriate Early Childhood Multicultural Curriculum 3 credit hour(s)
- ECME 2260 - Observation and Assessment of Young Children 3 credit hour(s)
- ECME 2262 - Emergent Literacy: Theory and Principles of Multicultural Emergent Literacy 3 credit hour(s)
- ECME 2264 - Emergent Literacy: Methods and Materials for Early Literacy Instruction 3 credit hour(s)
- ECME 2390 - Early Childhood Classroom Field Experience 3 credit hour(s)

Alternative Teacher Licensure, Certificate of Completion in Early Childhood Mulicultural Education 21 credit hour(s)

ATL-Elementary Education Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- Coordinated Entry Program

Program Requirements

This program's first term courses are offered fall term and spring term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- EDUC 2250 - Foundations of Education 3 credit hour(s)
- EDUC 2252 - Teaching and Learning Theory 3 credit hour(s)
- EDUC 2260 - Emergent Literacy: PreK-Grade 3 3 credit hour(s)
- EDUC 2262 - Intermediate Literacy: Grades 4-8 3 credit hour(s)
- EDUC 2284 - Effective Teaching Methods and Strategies 3 credit hour(s)
- EDUC 2285 - Curriculum Development Assessment and Evaluation 3 credit hour(s)
- EDUC 2190 - Supervised Field Experience 3 credit hour(s)

Alternative Teacher Licensure, Certificate of Completion in Elementary Education 21 credit hour(s)

ATL-Secondary Education Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- Coordinated Entry Program

Program Requirements

This program's first term courses are offered fall term and spring term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- EDUC 2250 - Foundations of Education 3 credit hour(s)
- EDUC 2252 - Teaching and Learning Theory 3 credit hour(s)
- EDUC 2264 - Reading and Writing across the Curriculum in Secondary Education 3 credit hour(s)
- EDUC 2284 - Effective Teaching Methods and Strategies 3 credit hour(s)
- EDUC 2285 - Curriculum Development Assessment and Evaluation 3 credit hour(s)
- EDUC 2190 - Supervised Field Experience 3 credit hour(s)

Alternative Teacher Licensure, Certificate of Completion in Secondary Education 18 credit hour(s)

ATL-Special Education Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- Coordinated Entry Program

Program Requirements

This program's first term courses are offered fall term and spring term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- EDUC 2260 - Emergent Literacy: PreK-Grade 3 3 credit hour(s)
- SPED 2250 - Exceptionalities and Placement 3 credit hour(s)
- SPED 2256 - Evaluation/Individual Education Plan and Documentation in Special Education 3 credit hour(s)
- SPED 2258 - Classroom and Behavior Management for Students with Special Needs 3 credit hour(s)
- SPED 2260 - Methods and Materials for Special Education 3 credit hour(s)
- SPED 2272 - Reading for Special Learners 3 credit hour(s)
- SPED 2390 - Special Education Supervised Field Experience 3 credit hour(s)

Alternative Teacher Licensure, Certificate of Completion in Special Education 21 credit hour(s)

Anthropology

Program Description

Anthropology is the scientific study of human beings, both past and present, in all parts of the world. Students of anthropology explore patterns and processes of cultural change; examine human biological origins, variations, and evolution; analyze material remains to understand peoples of the past; and learn how language reflects and shapes social life. Interested students can learn more about what anthropologists do by visiting the American Anthropological Association.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The two-year program is designed to meet the requirements for an Associate of Arts in Anthropology from CNM and prepare a student to obtain a Bachelor of Arts in Anthropology at the University of New Mexico. Students planning to transfer to UNM should keep in mind that the UNM Anthropology program offers four concentrations of study: Archaeology, Evolutionary Anthropology, Ethnology, and Linguistic Anthropology. Refer to the Student Handbook from the UNM Department of Anthropology and contact the Undergraduate General Advisor in the Department of Anthropology at 277-0194.

Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online.

Certificate and Degree Options

- Anthropology, Associate of Arts

Anthropology, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency

- MATH 1210

  or

- MATH 1310

- Reading 2 Proficiency

Term 1

- ANTH 1101 - Intro Anthropology 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- Program Requirement 3 credit hour(s) (1000-level)
- Program Requirement 3 credit hour(s) (1000-level)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)

Term 3

- Program Requirement 3 credit hour(s) (2000-level)
- Program Requirement 3 credit hour(s) (2000-level)

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Laboratory Science Requirement 4 credit hour(s)
- Humanities Requirement 3 credit hour(s)

Term 4

- Program Requirement 3 credit hour(s) (2000-level)
- Fine Arts Requirement 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)
- Elective 3 credit hour(s) (Mathematics recommended)
- Elective 3 credit hour(s) (Humanities recommended)
-

Associate of Arts in Anthropology 62-64 credit hour(s)

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

Please consult the UNM Anthropology Department's Major Study Requirements to choose CNM courses according to your intended concentration at UNM.

Program Requirements

1000 - Level Anthropology Requirement

- ANTH 1110 - Language Culture and the Human Animal 3 credit hour(s)
- ANTH 1120 - Archaeology: Discovering Our Past 3 credit hour(s)
- ANTH 1130 - Cultures of the World 3 credit hour(s)
- ANTH 1150 - Evolutionary Anthropology 3 credit hour(s)

2000 - Level Anthropology Requirement

- ANTH 2209 - Anthropology Practicum Variable credit hour(s)
- ANTH 2222 - Ancient Mesoamerica 3 credit hour(s)
- ANTH 2231 - North American Indians 3 credit hour(s)
- ANTH 2238 - Cultures Of the Southwest 3 credit hour(s)

- ANTH 2251 - Forensic Anthropology 3 credit hour(s)
- ANTH 2255 - Southwestern Archaeology 3 credit hour(s)
- ANTH 2265 - The Anthropology of Drugs 3 credit hour(s)

Apprenticeships

Certificate and Degree Options

- Commercial Carpentry Apprenticeship
- Electrical Trades Apprenticeship
- General Trades Apprenticeship
- Industrial Plant Maintenance Apprenticeship
- Iron Worker Apprenticeship
- Plumbing Apprenticeship
- Sheet Metal Apprenticeship

Commercial Carpentry Apprenticeship

- The Commercial Carpentry Apprenticeship (CCAP) courses are for partnering agencies with state-certified apprenticeship programs. Students must be part of a carpentry apprenticeship program or be employed in the carpentry construction industry.
- Courses are offered in conjunction with the Associated Builders and Contractors (ABC) and the Carpenters Educational Program. The program provides related classroom instruction.
- Students must purchase textbooks and instructional materials through ABC or Carpenters Educational Program Local 1319 offices.

Electrical Trades Apprenticeship

- The Electrical Trades Apprenticeship (ETAP) courses are for partnering agencies with state-certified apprenticeship programs. Students must be members of an electrical apprenticeship program or be employed in the electrical industry.
- Courses are offered in conjunction with the Independent Electrical Contractor (IEC) Association, Associated Builders and Contractors (ABC) and the joint Apprenticeship and Training Committee for the Electrical Industry (JATC).
- Students must purchase textbooks and instructional material through IEC, ABC or JATC.

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 Woker Apprenticeship (IWAP) courses are for partnering agencies with state-certified apprenticeship programs. Students must be part of an iron worker apprenticeship program or be employed in the iron working industry.
- Courses are offered in conjunction with Iron Workers Local 495. The program provides related classroom instruction.
- Students must purchase textbooks and instructional material through the Iron Workers Local 495 office.

Plumbing Apprenticeship

- The Plumbing Apprenticeship courses are for partnering agencies with state-certified apprenticeship programs. Students must be part of a plumbing apprenticeship program or be employed in the plumbing industry.
- Courses are offered in conjunction with the Associated Builders and Contractors (ABC) and Plumbers and Pipefitters Local 412.
- Students must purchase textbooks and instructional material through ABC or Plumbers and Pipefitters Local 412 offices.

Sheet Metal Apprenticeship

- The Sheet Metal Apprenticeship courses are for partnering agencies with state-certified apprenticeship programs. Students must be part of a sheet metal apprenticeship program or be employed in the sheet metal industry.

- Courses are offered in conjunction with the Associated Builders and Contractors (ABC) and Sheet Metal Workers Local 49.
- Students must purchase textbooks and instructional material through ABC or Sheet Metal Workers Local 49 offices.

Architectural/Engineering Drafting Technology

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. Additional courses are available to enhance this program of study. Please contact the School of Applied Technologies (AT) for information.

Special Requirements

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

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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

The Architectural/Engineering Drafting Technology, Certificate of Completion is also conducive to those seeking professional and technical upgrading in the design profession.

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

For the graduation policy refer to the Graduating From CNM section cnm.edu or the Students tab in myCNM.

Certificate and Degree Options

- Architectural/Engineering Drafting Technology, Certificate of Completion
- Architectural/Engineering Drafting Technology, Associate of Applied Science

Architectural/Engineering Drafting Technology, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- High School Diploma or Equivalent
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ARDR 1010 - CAD Analysis I 2 credit hour(s)
- ARDR 1101 - Building Materials and Methods I 3 credit hour(s)
- ARDR 1105 - Architectural Drafting I 4 credit hour(s)

- ARDR 1492 - Architectural Design 2 credit hour(s)

  or

- Program Approved Elective 2-3 credit hour(s)

- CAD 1001 - Basics Of CAD 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2*

* Either Term 2 or Term 3 courses may be taken directly after the completion of Term 1 courses

- ARDR 1201 - Building Materials and Methods II 3 credit hour(s)
- ARDR 1205 - Architectural CAD II 7 credit hour(s)
- ARDR 1220 - CAD Analysis II 3 credit hour(s)

Term 3*

* Either Term 2 or Term 3 courses may be taken directly after the completion of Term 1 courses

- ARDR 1306 - Architectural CAD III 4 credit hour(s)
- ARDR 1320 - CAD Analysis III 3 credit hour(s)

- ARDR 1110 - Architectural Mathematics 3 credit hour(s)

  or

- Program Approved Elective 3-4 credit hours

- ARDR 2192 - Site Analysis 2 credit hour(s)

  or

- Program Approved Elective 2-3 credit hour(s)

Architectural/Engineering Drafting Technology, Certificate of Completion 40-43 credit hour(s)

Approved ARDR Electives

- ARDR 1110 - Architectural Mathematics 3 credit hour(s)
- ARDR 1492 - Architectural Design 2 credit hour(s)
- ARDR 2192 - Site Analysis 2 credit hour(s)
- ARDR 2295 - Cooperative Education 3 credit hour(s)
- ARDR 2096-2996 - Special Topics 1-7 credit hour(s)
- ARDR 2297 - Independent Study 1-7 credit hour(s)
- ARDR 2298 - Internship 3 credit hour(s)
- Architectural/Engineering Drafting Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- High School Diploma or Equivalent
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ARDR 1010 - CAD Analysis I 2 credit hour(s)
- ARDR 1101 - Building Materials and Methods I 3 credit hour(s)
- ARDR 1105 - Architectural Drafting I 4 credit hour(s)

- ARDR 1492 - Architectural Design 2 credit hour(s)

  or

- Program Approved Elective 2-3 credit hour(s)

- CAD 1001 - Basics Of CAD 1 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

Either Term 2 or Term 3 courses may be taken directly after the completion of Term I courses

- ARDR 1201 - Building Materials and Methods II 3 credit hour(s)
- ARDR 1205 - Architectural CAD II 7 credit hour(s)
- ARDR 1220 - CAD Analysis II 3 credit hour(s)

- ARTH 2260 - Architectural History: Ancient through Modern 3 credit hour(s)

  or

- ARTS 1102 - Introduction to Studio Arts 3 credit hour(s)

  or
- ARTS 1106 - Drawing I 3 credit hour(s)

  or
- ARTS 1121 - Two-Dimensional Design 3 credit hour(s)

Term 3

Either Term 2 or Term 3 courses may be taken directly after the completion of Term I courses

- ARDR 1110 - Architectural Mathematics 3 credit hour(s)

  or
- Program Approved Elective 3 credit hour(s)

- ARDR 1306 - Architectural CAD III 4 credit hour(s)
- ARDR 1320 - CAD Analysis III 3 credit hour(s)

- ARDR 2192 - Site Analysis 2 credit hour(s)

  or
- Program Approved Elective 2-3 credit hour(s)

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

Term 4

Either Term 4 or Term 5 courses may be taken directly after the completion of all Term 2 AND Term 3 courses

- ARDR 2110 - Structural Systems Analysis 3 credit hour(s)
- ARDR 2105 - Structural Systems CAD 4 credit hour(s)
- ARDR 2120 - Structural Systems Software Applications 2 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096)

Term 5

Either Term 4 or Term 5 courses may be taken directly after the completion of all Term 2 AND Term 3 courses

- ARDR 2205 - Mechanical/Electrical/Plumbing Systems CAD 4 credit hour(s)
- ARDR 2210 - Mechanical/Electrical Systems Analysis 3 credit hour(s)
- ARDR 2220 - Mechanical/Electrical/Plumbing Systems Software Applications 2 credit hour(s)
- ARDR 2999 - ARDR Seminar II 1 credit hour(s)

- Humanities Requirement 3 credit hour(s)

  or
- Social/Behavioral Science Requirement 3 credit hour(s)

Associate of Applied Science in Architectural/Engineering Drafting Technology 74-75 credit hour(s)

A catalog change was made per catalog corrections team.

Program Approved Electives

- ARDR 1110 - Architectural Mathematics 3 credit hour(s)
- ARDR 1492 - Architectural Design 2 credit hour(s)
- ARDR 2096-2996 - Special Topics 1-7 credit hour(s)
- ARDR 2192 - Site Analysis 2 credit hour(s)
- ARDR 2295 - Cooperative Education 3 credit hour(s)
- ARDR 2297 - Independent Study 1-7 credit hour(s)
- ARDR 2298 - Internship 3 credit hour(s)

Automotive 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

Gainful Employment information is available from Job Connection Services.

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.

- Program Exit Competencies
- For the graduation policy refer to the Graduating From CNM section.

Certificate and Degree Options

- Automotive Service Fundamentals, Certificate of Completion
- Automotive Technology, Certificate of Completion
- Transportation Technology, Associate of Applied Science

Automotive Service Fundamentals, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- AUTC 1110 - Introduction to Automotive Systems 4 credit hour(s)
- AUTC 1120 - Brake Systems 4 credit hour(s)
- AUTC 1130 - Suspension and Alignment 4 credit hour(s)
- AUTC 1140 - Automotive Electrical 4 credit hour(s)

Certificate in Automotive Service Fundamentals 16 credit hour(s)

Automotive Technology, Certificate of Completion

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

Gainful Employment information is available from Job Connection Services.

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 for this program of study are available at cnm.edu/exitcomp.

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

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- AUTC 1110 - Introduction to Automotive Systems 4 credit hour(s)
- AUTC 1120 - Brake Systems 4 credit hour(s)
- AUTC 1130 - Suspension and Alignment 4 credit hour(s)
- AUTC 1140 - Automotive Electrical 4 credit hour(s)

Term 2

- AUTC 1210 - Manual Transmissions 4 credit hour(s)
- AUTC 1220 - Engine Repair 4 credit hour(s)
- AUTC 1230 - Automatic Transmissions 4 credit hour(s)
- AUTC 1240 - Automotive Electronics 4 credit hour(s)

Term 3

- AUTC 2111 - Air Conditioning and Heating 3 credit hour(s)
- AUTC 2120 - Engine Performance I 4 credit hour(s)
- AUTC 2130 - Engine Performance II 4 credit hour(s)
- AUTC 2198 - Automotive Internship 1 credit hour(s)

Certificate of Completion in Automotive Technology 44 credit hour(s)

Aviation Technology

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Airframe Maintenance Technician, Certificate of Completion
- Powerplant Maintenance Technician, Certificate of Completion
- Aviation Maintenance Technology, Associate of Applied Science

Airframe Maintenance Technician, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- AVMT 1240 - Aircraft Forms, Regulations, Publications and Mathematics 4 credit hour(s)
- AVMT 1260 - Basic Electricity I and Aircraft Weight and Balance 4 credit hour(s)
- AVMT 1270 - Basic Electricity II, Materials and Processes and Cleaning and Corrosion Control 4 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 2

- AVMT 1280 - Aviation Physics, Aircraft drawings, Ground Operations and Servicing, Fluid Lines and Fittings and Corrosion Control 5 credit hour(s)
- AVMT 2220 - Aircraft Wood Structures, Covering, Finishing and Bonded Structures 5 credit hour(s)
- AVMT 2225 - Atmosphere Control Fire Detection Ice and Rain Protection Systems 5 credit hour(s)

Term 3

- AVMT 2230 - Aircraft Sheet Metal 4 credit hour(s)
- AVMT 2236 - Aircraft Landing Gear Hydraulic Pneumatic and Fuel Systems 4 credit hour(s)
- AVMT 2240 - Aircraft Electrical Systems 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Term 4

- AVMT 2243 - Aircraft Instruments Position and Warning and Communication and Navigation Systems 5 credit hour(s)
- AVMT 2245 - Airframe Assembly Rigging and Welding 5 credit hour(s)
- AVMT 2292 - Airframe Inspection and Test and Review 2 credit hour(s)

Certificate of Completion in Airframe Maintenance Technician 56-57 credit hour(s)

Powerplant Maintenance Technician, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- AVMT 1240 - Aircraft Forms, Regulations, Publications and Mathematics 4 credit hour(s)
- AVMT 1260 - Basic Electricity I and Aircraft Weight and Balance 4 credit hour(s)
- AVMT 1270 - Basic Electricity II, Materials and Processes and Cleaning and Corrosion Control 4 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 2

- AVMT 1280 - Aviation Physics, Aircraft drawings, Ground Operations and Servicing, Fluid Lines and Fittings and Corrosion Control 5 credit hour(s)
- AVMT 2250 - Reciprocating Engines 4 credit hour(s)
- AVMT 2393 - Reciprocating Engines Lab 3 credit hour(s)

Term 3

- AVMT 2260 - Aircraft Turbine Engines I 6 credit hour(s)
- AVMT 2262 - Aircraft Turbine Engines II, Induction, Lubrication and Engine Fire Protection Systems 4 credit hour(s)
- AVMT 2265 - Engine Fuel and Metering Systems 6 credit hour(s)

Term 4

- AVMT 2270 - Engine Electrical Systems 4 credit hour(s)
- AVMT 2275 - Engine Instruments Cooling Exhaust Ignition and Starting Systems 5 credit hour(s)
- AVMT 2280 - Propeller Systems, Engine Inspections and Test and Review 5 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Certificate of Completion in Powerplant Maintenance Technician 60-61 credit hour(s)

Aviation Maintenance Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- AVMT 1240 - Aircraft Forms, Regulations, Publications and Mathematics 4 credit hour(s)
- AVMT 1260 - Basic Electricity I and Aircraft Weight and Balance 4 credit hour(s)
- AVMT 1270 - Basic Electricity II, Materials and Processes and Cleaning and Corrosion Control 4 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 2

- AVMT 1280 - Aviation Physics, Aircraft drawings, Ground Operations and Servicing, Fluid Lines and Fittings and Corrosion Control 5 credit hour(s)
- AVMT 2220 - Aircraft Wood Structures, Covering, Finishing and Bonded Structures 5 credit hour(s)
- AVMT 2225 - Atmosphere Control Fire Detection Ice and Rain Protection Systems 5 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s) or higher

Term 3

- AVMT 2230 - Aircraft Sheet Metal 4 credit hour(s)
- AVMT 2236 - Aircraft Landing Gear Hydraulic Pneumatic and Fuel Systems 4 credit hour(s)
- AVMT 2240 - Aircraft Electrical Systems 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Term 4

- AVMT 2243 - Aircraft Instruments Position and Warning and Communication and Navigation Systems 5 credit hour(s)
- AVMT 2245 - Airframe Assembly Rigging and Welding 5 credit hour(s)
- AVMT 2292 - Airframe Inspection and Test and Review 2 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 5

- AVMT 2250 - Reciprocating Engines 4 credit hour(s)
- AVMT 2393 - Reciprocating Engines Lab 3 credit hour(s)
- AVMT 2260 - Aircraft Turbine Engines I 6 credit hour(s)

Term 6

- AVMT 2262 - Aircraft Turbine Engines II, Induction, Lubrication and Engine Fire Protection Systems 4 credit hour(s)
- AVMT 2265 - Engine Fuel and Metering Systems 6 credit hour(s)
- AVMT 2270 - Engine Electrical Systems 4 credit hour(s)

Term 7

- AVMT 2275 - Engine Instruments Cooling Exhaust Ignition and Starting Systems 5 credit hour(s)
- AVMT 2280 - Propeller Systems, Engine Inspections and Test and Review 5 credit hour(s)

- Humanities/Fine Arts Requirement 3 credit hour(s)

  or

- Social/Behavioral Science Requirement 3 credit hour(s)

Associate of Applied Science in Aviation Maintenance Technology 102-103 credit hour(s)

Baking

Program Description

The Baking certificate is a two-term 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 in the second half of the program. Techniques of classical and contemporary pastry arts are covered, including laminated dough, tarts and specialty cakes.

The certificate program is a required part of the associate of applied science degree which is nationally accredited by the American Culinary Federation Foundation Accrediting Commission (ACFFAC). 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 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

Gainful Employment information is available from Job Connection Services.

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

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Baking, Certificate of Completion

Baking, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- CULN 1100 - Introduction to Culinary Skills 3 credit hour(s)
- CULN 1110 - Culinary Skills 4 credit hour(s)
- CULN 1103 - Safety and Sanitation Principles 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- CULN 1130 - Introduction to Baking Fundamentals 5 credit hour(s)

- CULN 1132 - Applied Baking Principles 5 credit hour(s)
- Program Approved Electives 3-5 credit hour(s)

Certificate of Completion in Baking 26-28 credit hour(s)

Program Approved Electives

- ACCT Courses 3-6 credit hour(s)
- BA Courses 3-6 credit hour(s)
- CIS courses 3 credit hour(s)
- CSE 1101 - College Success 1-3 credit hour(s) or higher
- CULN Courses 3-5 credit hour(s) (except those required for the degree)
- FITT courses 1-3 credit hour(s)
- FREN 1101 - Beginning French I 3-4 credit hour(s) or higher
- HT Courses 3-4 credit hour(s)
- NUTR Courses 3 credit hour(s)
- SPAN 1101 - Beginning Spanish 3-4 credit hour(s) or higher

Biology

Program Description

Students majoring in biology examine the structure and function of the living world. Interested students can learn about career opportunities and pathways in Biology and related fields from the American Institute of Biological Sciences.

The two-year program is designed to meet the requirements for an Associate of Science in Biology from CNM and prepare a student to obtain a Bachelor of Science in Biology at the University of New Mexico. However, students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students interested in transfer to UNM should consult the UNM Biology department at (505) 277-3411. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Curricular Outcomes

- Explain the significance and central importance of metabolic pathways in cellular function
- Critically apply scientific principles to experimental methods
- Identify and use mathematical methods to model biological systems
- Integrate concepts drawn from cellular and organismal biology with evolutionary adaptations
- Model ecological patterns
- Communicate effectively
- Collaborate with peers to accomplish tasks
- Recognize the impact of scientific applications in a global context

Certificate and Degree Options

- Biology, Associate of Science

Biology, Associate of Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
-
- MATH 1315

  or
- MATH 1410

  and
- MATH 1415
-
- Reading 2 Proficiency

Term 1

- IT 1010 - Introduction to Computers 3 credit hour(s)

- CHEM 1710 - General Chemistry I 3 credit hour(s)

  and

- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)

- MATH 1460 - Elements Of Calculus I 3 credit hour(s)

  or

- MATH 1710 - Calculus I 4 credit hour(s)

- Social/Behavioral Science Requirement 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 2

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- BIO 1510/1592 - Molecular and Cell Biology w/Laboratory 4 credit hour(s)

- CHEM 1810 - General Chemistry II 3 credit hour(s)

  and

- CHEM 1892 - General Chemistry II Lab 1 credit hour(s)

- MATH 1465 - Elements Of Calculus II 3 credit hour(s)
- or
- MATH 1715 - Calculus II 4 credit hour(s)

- Humanities Requirement 3 credit hour(s)

Term 3

- COMM 1130 - Public Speaking 3 credit hour(s)
- BIO 1610/1692 - Genetics w/Laboratory 4 credit hour(s)

- CHEM 2710 - Organic Chemistry I 3 credit hour(s)

  and

- CHEM 2792 - Organic Chemistry I Laboratory 1 credit hour(s)

- PHYS 1510 - Physics I 4 credit hour(s)

  and

- PHYS 1592 - Physics I Laboratory 1 credit hour(s)

  or

- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)

  and

- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)

- Humanities Requirement 3 credit hour(s)

Term 4

- PHYS 1610 - Physics II 4 credit hour(s)

  and

- PHYS 1692 - Physics II Laboratory 1 credit hour(s)

  or

- PHYS 1810 - Physics for Scientists and Engineers II 4 credit hour(s)

  and

- PHYS 1892 - Physics for Scientists and Engineers II Laboratory 1 credit hour(s)

- BIO 2410/2492 - Ecology & Evolution w/Laboratory 4 credit hour(s)
- BIO 2510/2592 - Plant & Animal Form and Function w/Laboratory 4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)

Associate of Science in Biology 71-73 credit hour(s)

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

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 Associate 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.

This program's first term courses are offered in the summer term only. This may delay a student's program start date. Please check with an academic advisor for more information.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Because the program builds upon skills learned in previous semesters, the Biotechnology core courses must be taken in sequence.

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

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Biotechnology, Post Degree Certificate of Completion
- Biotechnology, Associate of Applied Science
-

Biotechnology, Post Degree Certificate of Completion

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- MATH 1315
-
- CHEM 1710

  and
- CHEM 1792
-
- CHEM 1810

  and
- CHEM 1892

Required Courses

- BIO 1510/1592 - Molecular and Cell Biology w/Laboratory 4 credit hour(s)
- BIO 1610/1692 - Genetics w/Laboratory 4 credit hour(s)
- BIO 2110 - Microbiology 3 credit hour(s)
- BIO 2192 - Microbiology Laboratory 1 credit hour(s)
- CHEM 2210 - Organic Chemistry and Biochemistry 4 credit hour(s)

Term 1 (Summer Only)

This program's first term courses are offered in the summer term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- BIOT 1210/1270 - Biotechnology Laboratory Techniques I 4 credit hour(s)
- BIOT 1211 - Biotechnology Seminar II 1 credit hour(s)

Term 2 (Fall Only)

- BIOT 1510/1570 - Biotechnology Laboratory Techniques II 5 credit hour(s)
- BIOT 1512 - Biotechnology Seminr III 1 credit hour(s)

Term 3 (Spring Only)

- BIOT 2410/2470 - Biotechnology Laboratory Techniques III 5 credit hour(s)
- BIOT 2413 - Biotechnology Seminar IV 1 credit hour(s)
- BIOT 2475 - Bioinformatics and Proteomics 3 credit hour(s)

Certificate in Biotechnology 36 credit hour(s)

Biotechnology, Associate of Applied Science

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- MATH 1315

- CHEM 1710

  and
- CHEM 1792

- CHEM 1810

  and

- CHEM 1892

Required Courses

- BIOT 1010 - Introduction to Biotechnolgy 2 credit hour(s)
- BIO 1510/1592 - Molecular and Cell Biology w/Laboratory 4 credit hour(s)
- BIO 1610/1692 - Genetics w/Laboratory 4 credit hour(s)
- BIO 2110 - Microbiology 3 credit hour(s)
- BIO 2192 - Microbiology Laboratory 1 credit hour(s)
- CHEM 2210 - Organic Chemistry and Biochemistry 4 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1330 - Introduction to Probability and Statistics 3 credit hour(s)
- PHIL 2247 - Biomedical Ethics 3 credit hour(s)

Term 1 (Summer Only)

This program's first term courses are offered in the summer term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- BIOT 1005 - Math For Biot Lab 3 credit hour(s) (Required for Degree only)
- BIOT 1210/1270 - Biotechnology Laboratory Techniques I 4 credit hour(s)
- BIOT 1211 - Biotechnology Seminar II 1 credit hour(s)

Term 2 (Fall Only)

- BIOT 1510/1570 - Biotechnology Laboratory Techniques II 5 credit hour(s)
- BIOT 1512 - Biotechnology Seminr III 1 credit hour(s)

Term 3 (Spring Only)

- BIOT 2410/2470 - Biotechnology Laboratory Techniques III 5 credit hour(s)
- BIOT 2413 - Biotechnology Seminar IV 1 credit hour(s)
- BIOT 2475 - Bioinformatics and Proteomics 3 credit hour(s)

Term 4 (Summer Only)

- BIOT 2098 - Internship 8 credit hour(s)
- BIOT 2810 - Biotechnology Seminar 2 credit hour(s)

Associate of Applied Science in Biotechnology 63 credit hour(s)

Business

Program Description

This Associate of Arts degree is 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. Click here for Articulation agreements.

Students should communicate with the School of Business & Information Technology associate dean or program chairs at (505) 224-3811, 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 ANTH 1150 and GEOG 1101 for the degree should depend upon articulation/transfer requirements of four-year transfer institution. Since some New Mexico schools classify ANTH 1150 and GEOG 1101 as a physical science, CNM 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 choice 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

Gainful Employment information is available from Job Connection Services.

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 and management, 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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Business, Associate of Arts

Business, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- MATH 1310
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s)

  or
- MATH 1415 - Advanced Algebra 4 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

  or
- SOC 1101 - Introduction To Sociology 3 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)

Term 2

- ECON 2200 - Macroeconomics 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- MATH 1460 - Elements Of Calculus I 3 credit hour(s) or higher level calculus
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 3

- ECON 2201 - Microeconomics 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)

- ENG 2219 - Technical Writing 3 credit hour(s) (Recommended)

  or
- ENG 2220 - Expository Writing 3 credit hour(s)

  or
- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or
- COMM 2232 - Business and Professional Communication Studies 3 credit hour(s)

- Laboratory Science Requirement 4 credit hour(s)
- MATH 1330 - Introduction to Probability and Statistics 3 credit hour(s)

Term 4

- Social/Behavioral Science Requirement 3 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s)
- ACCT 1112 - Accounting IB 3 credit hour(s)
- Humanities Requirement 3 credit hours
- BA 2240 - Business Law 3 credit hour(s)
- ACCT 1210 - Accounting II 3 credit hour(s)

Associate of Arts in Business 65 credit hour(s)

Business Administration

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 and marketing. 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

Gainful Employment information is available from Job Connection Services.

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 chair or associate dean during their first term.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Business Administration, Certificate of Completion
- General Business, Certificate of Completion
- Project Management, Certificate of Completion
- Business Administration, Associate of Applied Science

Business Administration, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1101 - Introduction to Business 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ACCT 1112 - Accounting IB 3 credit hour(s)
- BA 1121 - Business English 3 credit hour(s)
- BA 1133 - Principles of Management 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 3

- ACCT 1210 - Accounting II 3 credit hour(s)
- BA 2222 - Principles of Marketing 3 credit hour(s)
- BA 2240 - Business Law 3 credit hour(s)
- Approved Elective 3 credit hour(s)

Certificate of Completion in Business Administration 39 credit hour(s)

General Business, Certificate of Completion

Program Description

The General Business, Certificate of Completion is a series of courses for individuals who want to begin or expand their skills in business.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The courses may be applied to an associate of applied science degree in Business Administration.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency (Recommended)
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- BA 1101 - Introduction to Business 3 credit hour(s)

  or
- BA 1133 - Principles of Management 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- ACCT 1112 - Accounting IB 3 credit hour(s)

  or
- BA 1121 - Business English 3 credit hour(s)

  or

- BA 1115 - Web Business 3 credit hour(s)

  or
- BA 1105 - Introduction to Entrepreneurship 3 credit hour(s)

  or
- FIN 1100 - Principles of Banking 3 credit hour(s)

  or
- BA 1103 - Introduction to International Business 3 credit hour(s)

Certificate of Completion, General Business 18 credit hour(s)

Project Management, Certificate of Completion

Program Description

The Project Management Certificate of Completion 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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The courses may be applied to an Associate of Applied Science degree in Business Administration. 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.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency

Term 1

- CIS 2110 - Project Management Software 1 credit hour(s)
- PM 1130 - Project Management Fundamentals 3 credit hour(s)
- PM 1150 - Effective Project Management 3 credit hour(s)

Term 2

- PM 2200 - Budget and Resource Management 3 credit hour(s)
- PM 2210 - Contract Management 3 credit hour(s)

Term 3

- PM 2250 - Advanced Project Management 3 credit hour(s)

Certificate of Completion in Project Management 16 credit hour(s)

Business Administration, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- ACCT 1111 - Accounting IA 3 credit hour(s)

- BA 1101 - Introduction to Business 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ACCT 1112 - Accounting IB 3 credit hour(s)
- BA 1121 - Business English 3 credit hour(s)
- BA 1133 - Principles of Management 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 3

- ACCT 1210 - Accounting II 3 credit hour(s)
- BA 2222 - Principles of Marketing 3 credit hour(s)
- BA 2240 - Business Law 3 credit hour(s)
- Program Approved Elective 3 credit hours
- Human Relations Requirement 3 credit hour(s)

Term 4

- Concentration Courses 6 credit hour(s)

- BA 1122 - Business Writing 3 credit hour(s)

  or
- ENG 1119 - Technical Communications 3 credit hour(s)

- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096)

Term 5

- BA 2999 - Capstone Course 1 credit hour(s)
- Concentration Courses 6 credit hour(s)

- ECON 2200 - Macroeconomics 3 credit hour(s)

  or
- ECON 2201 - Microeconomics 3 credit hour(s)

Business Administration, Associate of Applied Science 65 credit hour(s)

- A catalog change was made per catalog corrections team.
-

Concentrations

Students must choose at least one concentration.

- Entrepreneurship
- Management
- Real Estate Marketing
- Project Management
-

Entrepreneurship

12 Credit Hours.

- BA 1105 - Introduction to Entrepreneurship 3 credit hour(s)

- ACCT 1410 - Quickbooks Complete 3 credit hour(s)

  or
- BA 1115 - Web Business 3 credit hour(s)

  or
- BA 2228 - Promotion Strategies 3 credit hour(s)

  or
- BA 2230 - Customer Relations 3 credit hour(s)

- BA 2103 - Entrepreneurship and Business Plan Development 6 credit hour(s)

Management

12 Credit Hours.

- BA 2232 - Supervision 3 credit hour(s)
- BA 2234 - Organizational Behavior 3 credit hour(s)
- BA 2238 - Human Resource Management 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)

Marketing

12 Credit Hours.

- BA 2226 - Sales 3 credit hour(s)
- BA 2228 - Promotion Strategies 3 credit hour(s)

Option

Select two from the list below.

- BA 2220 - Web Marketing 3 credit hour(s)
- BA 2221 - International Marketing 3 credit hour(s)
- BA 2236 - Retail Management 3 credit hour(s)

Project Management

12 Credit Hours.

- PM 1130 - Project Management Fundamentals 3 credit hour(s)
- PM 1150 - Effective Project Management 3 credit hour(s)
- PM 2200 - Budget and Resource Management 3 credit hour(s)
- PM 2210 - Contract Management 3 credit hour(s)

Real Estate

12 Credit Hours.

- BA 2270 - Real Estate Law 3 credit hour(s)
- BA 2271 - Real Estate Principles and Practice 3 credit hour(s)
- BA 2275 - Broker Basics 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)

Program Approved Electives

- ACCT 1120 - Payroll Accounting 3 credit hour(s) or higher
- BA Courses 3-6 credit hour(s) (except those required for certificate or degree)
- CIS Courses 1-3 credit hour(s)
- CSE 1101 - College Success 3 credit hour(s) or higher
- HT Courses 3 credit hour(s)
- PM Courses 3-6 credit hour(s) (except those required for degree)

Carpentry

Program Description

The Carpentry Certificate program provides students with 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section.

Certificate and Degree Options

- Architectural Woodworking, Certificate of Completion
- Carpentry, Certificate of Completion

Architectural Woodworking, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- CARP 1005 - Carpentry Blueprint Reading I 4 credit hour(s)
- CARP 1320 - Carpentry Fundamentals 3 credit hour(s)
- OSH 2016 - Occupational Safety I 1 credit hour(s)

Term 2

- CARP 1592 - Furniture Making 2 credit hour(s)
- CARP 1692 - Advanced Furniture Making 2 credit hour(s)
- CARP 1792 - Cabinetmaking 2 credit hour(s)
- CARP 1892 - Spanish Colonial Furniture Making 2 credit hour(s)

Certificate of Completion in Architectural Woodworking 16 credit hour(s)

Carpentry, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- CARP 1005 - Carpentry Blueprint Reading I 4 credit hour(s)
- CARP 1030 - Carpentry Theory 1 3 credit hour(s)
- CARP 1392 - Construction Lab A 5 credit hour(s)
- OSH 2016 - Occupational Safety I 1 credit hour(s)

Term 2

- CARP 2005 - Carpentry Blueprint Reading II 4 credit hour(s)
- CARP 2030 - Carpentry Theory 2 3 credit hour(s)
- CARP 1492 - Construction Lab B 5 credit hour(s)

Certificate of Completion in Carpentry 25 credit hour(s)

Chemistry

Program Description

Students majoring in chemistry examine the composition, structure and properties of matter with an emphasis on chemical reactions and the nature of chemical bonding. Interested students can learn about career opportunities and pathways in Chemistry and related fields from the American Chemical Society.

The two-year program is designed to meet the requirements for an Associate of Science in Chemistry from CNM and prepare a student to obtain a Bachelor of Science in Chemistry at the University of New Mexico. However, students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students interested in transfer to UNM should consult the UNM Chemistry Department. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Curricular Outcomes

- Develop laboratory experimental models that support theoretical chemistry concepts and methodology.
- Work with minimal supervision to collect, analyze, and report relevant chemistry/experimental information.
- Use basic computational and graphical techniques to perform laboratory related calculations and data analysis.
- Perform laboratory observations (both qualitative and quantitative) using sensory experience and appropriate measurement instrumentation (both analog and digital).
- Demonstrate a mastery of basic chemistry laboratory operations and experimental procedures.
- Contribute, as member of a team, to the successful accomplishment of organizational tasks, projects, and goals.

Certificate and Degree Options

- Chemistry, Associate of Science

Chemistry, Associate of Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
-
- MATH 1410

  and
- MATH 1415
-
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)
- MATH 1710 - Calculus I 4 credit hour(s)
- CHEM 1710 - General Chemistry I 3 credit hour(s)
- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)

Term 2

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- MATH 1715 - Calculus II 4 credit hour(s)
- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)
- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)
- CHEM 1810 - General Chemistry II 3 credit hour(s)
- CHEM 1892 - General Chemistry II Lab 1 credit hour(s)

Term 3

- CHEM 2710 - Organic Chemistry I 3 credit hour(s)
- CHEM 2792 - Organic Chemistry I Laboratory 1 credit hour(s)
- MATH 2710 - Calculus III 4 credit hour(s)
- PHYS 1810 - Physics for Scientists and Engineers II 4 credit hour(s)
- PHYS 1892 - Physics for Scientists and Engineers II Laboratory 1 credit hour(s)

- Fine Arts Requirement 3 credit hour(s)

Term 4

- CHEM 2810 - Organic Chemistry II 3 credit hour(s)
- CHEM 2892 - Organic Chemistry II Laboratory 1 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Associate of Science in Chemistry 65 credit hour(s)

Child, Youth and Family Development

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.

Students pursuing the Social Work Concentration can also take specified electives to become a Licensed Substance Abuse Associate (LSAA). The LSAA provides individuals with the entry level licensure required to work in the field of Substance Abuse Counseling. The associate degree in social work and the specified electives for the LSAA meet entry requirements to become a Licensed Alcohol and Drug Abuse Counselor (LADAC). For questions regarding specific requirements for the LSAA and the LADAC certification, contact the New Mexico Counseling and Therapy Practice Board (NMCTPB) at www.rld.state.nm.us or (505) 476-4610.

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Child, Youth and Family Development, Associate of Arts

Child, Youth and Family Development, Associate of Arts

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- Math 2 Proficiency

  or

- MATH 1310

- Reading 2 Proficiency
- Concentrations
- Family Studies Concentration

Recommended Sequence of Courses

Term 1

- ENG 1101 - College Writing 3 credit hour(s)

- MATH 1110 - Mathematics for Elementary School Teachers I 3 credit hour(s)

  or

- MATH 1115 - Mathematics for Elementary School Teachers II 3 credit hour(s)

  or

- MATH 1315 - College Algebra 3 credit hour(s) or higher

- Laboratory Science Requirement 4 credit hour(s)
- ECME 1108 - Health Safety and Nutrition 2 credit hour(s)
- CDV 1103 - Preschool Growth and Development 3 credit hour(s)

Term 2

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or

- COMM 2270 - Communication Studies for Teachers 3 credit hour(s) (COMM 2270 Recommended)

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Social/Behavioral Science elective 3 credit hour(s)
- ECME 2230 - Infant-Toddler Growth Development and Learning 3 credit hour(s)
- ECME 2690 - Infant-Toddler Growth, Development and Learning Practicum 2 credit hour(s)
- CDV elective 3 credit hour(s)

Term 3

- Laboratory Science Requirement 4 credit hour(s)
- Fine Arts elective 3 credit hour(s)

- HIST 1161 - History of the United States I 3 credit hour(s)

  or

- HIST 1162 - History of the United States II 3 credit hour(s)

  or

- HIST 2260 - History of New Mexico 3 credit hour(s)

- CDV 2201 - Middle Childhood Growth and Development 3 credit hour(s)

- CDV 1890 - Family Studies Practicum I 2 credit hour(s) (Offered Fall Term Only)

Term 4

- Social/Behavioral Science elective 3 credit hour(s)
- CDV 2202 - Adolescent Growth and Development 3 credit hour(s)

- HIST 1101 - Western Civilization I 3 credit hour(s)

  or

- HIST 1102 - Western Civilization II 3 credit hour(s)

- CDV 2219 - Marriages and Families 3 credit hour(s)
- CDV elective 3 credit hour(s)

Associate of Arts in Child, Youth and Family Development (Family Studies Concentration) 62 credit hour(s)

Program Approved Electives

CDV Electives

- CDV 1101 - Parents and Young Children 3 credit hour(s)
- CDV 1107 - Art And Play 3 credit hour(s)
- CDV 2096-2996 - Special Topics 1-6 credit hour(s)
- CDV 2297 - Independent Study 1-3 credit hour(s)
- CDV 2212 - Special Issues in Child and Family Development 3 credit hour(s)
- CDV 2218 - Strengthening Family Structures 3 credit hour(s)
- CDV 2890 - CYFD Practicum 2 credit hour(s)
- ECME 2201 - Introduction to Reading and Literacy Development 3 credit hour(s)
- ECME 2206 - Family and Community Collaboration I 3 credit hour(s)
- ECME 2214 - Guiding Young Children 3 credit hour(s)
- SPED 2201 - Education of the Exceptional Person 3 credit hour(s)
- SPED 2290 - Introduction to Special Education 2 credit hour(s)

Fine Arts Electives

- ARTH 1101 - Introduction to Art 3 credit hour(s)
- ARTH 2201 - History Of Art I 3 credit hour(s)
- ARTH 2202 - History Of Art II 3 credit hour(s)
- ARTH 2250 - Modern Art 3 credit hour(s)
- ARTH 2251 - Art of the American Southwest 3 credit hour(s)
- MUS 1139 - Early Music Appreciation 3 credit hour(s)
- MUS 1140 - Modern Music Appreciation 3 credit hour(s)
- THEA 1122 - Introduction to Theatre 3 credit hour(s)

Social/Behavioral Science Electives

Select from 2 Different Subject Areas.

- ANTH 1101 - Intro Anthropology 3 credit hour(s)

  or

- ANTH 1130 - Cultures of the World 3 credit hour(s)

- ECON 2200 - Macroeconomics 3 credit hour(s)

  or

- ECON 2201 - Microeconomics 3 credit hour(s)

- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Social Work Concentration

Recommended Sequence of Courses

Term 1

- ENG 1101 - College Writing 3 credit hour(s)

- IT 1010 - Introduction to Computers 3 credit hour(s)

  or
- EDUC 2265 - Computers in Schools 3 credit hour(s)

- CDV 2210 - Introduction to Social Work 3 credit hour(s)
- CDV 2890 - CYFD Practicum 2 credit hour(s)

- SOC 1101 - Introduction To Sociology 3 credit hour(s)

  or
- SOC 2205 - Crime Public Policy and the Criminal Justice System 3 credit hour(s)

  or
- SOC 2211 - Social Problems 3 credit hour(s)

  or
- SOC 2213 - Deviant Behavior 3 credit hour(s)

  or
- SOC 2216 - Ethnic and Minority Groups 3 credit hour(s)

  or
- SOC 2225 - Sociology of Family 3 credit hour(s)

  or
- SOC 2235 - Sociology of Gender 3 credit hour(s)

Term 2

- ANTH 1101 - Intro Anthropology 3 credit hour(s)

  or
- ANTH 1130 - Cultures of the World 3 credit hour(s)

  or
- ANTH 2238 - Cultures Of the Southwest 3 credit hour(s)

  or
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

- Approved Social Work Electives 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)

- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Laboratory Science Requirement 4 credit hour(s)

Term 3

- Laboratory Science Requirement 4 credit hour(s)
- Humanities Approved Elective 3 credit hour(s)
- Approved Social Work Electives 9 credit hour(s)

Term 4

- Approved Social Work Electives 6 credit hour(s)
- Fine Arts Elective 3 credit hour(s)

- MATH 1315 - College Algebra 3 credit hour(s)

  or
- MATH 1320 - A Survey of Mathematics 3 credit hour(s)

or

- MATH 1330 - Introduction to Probability and Statistics 3 credit hour(s) or higher (Highly Recommended)

- SOC 1101 - Introduction To Sociology 3 credit hour(s)

  or

- SOC 2205 - Crime Public Policy and the Criminal Justice System 3 credit hour(s)

  or

- SOC 2211 - Social Problems 3 credit hour(s)

  or

- SOC 2213 - Deviant Behavior 3 credit hour(s)

  or

- SOC 2216 - Ethnic and Minority Groups 3 credit hour(s)

  or

- SOC 2225 - Sociology of Family 3 credit hour(s)

  or

- SOC 2235 - Sociology of Gender 3 credit hour(s)

Associate of Arts in Children Youth and Family Development (Social Work Concentration) 61 credit hour(s)

Program Approved Electives

If not used as required course

Social Work Electives

*Courses which meet the LSAA training hour requirements (see program description for more information

- Any AAST - Asian American Studies course
- Any AFST - African American Studies course
- Any CHMS - Chicano Studies course
- Any CST - Cultural Studies course
- Any NATV - Native American Studies course
- CDV 1101 - Parents and Young Children 3 credit hour(s)
- CDV 1103 - Preschool Growth and Development 3 credit hour(s)
- CDV 1107 - Art And Play 3 credit hour(s)
- CDV 1890 - Family Studies Practicum I 2 credit hour(s)
- CDV 2096-2996 - Special Topics 1-6 credit hour(s)
- CDV 2297 - Independent Study 1-3 credit hour(s)
- CDV 2201 - Middle Childhood Growth and Development 3 credit hour(s)
- CDV 2202 - Adolescent Growth and Development 3 credit hour(s)
- CDV 2203 - Introduction to Addiction Counseling 2 credit hour(s) *
- CDV 2204 - Professional Issues in Substance Abuse Treatment 2 credit hour(s) *
- CDV 2205 - Adolescent Substance Abuse: Prevention and Treatment 2 credit hour(s) *
- CDV 2218 - Strengthening Family Structures 3 credit hour(s)
- CDV 2219 - Marriages and Families 3 credit hour(s)
- CJ 1002 - Criminal Law 3 credit hour(s)
- CJ 1007 - Criminal Procedure 3 credit hour(s)
- CJ 1502 - Juvenile Law and Procedure 3 credit hour(s)

- EDUC 2204 - Child Development 3 credit hour(s)

  or

- ECME 1104 - Child Growth Development and Learning 3 credit hour(s)

- ECME 1108 - Health Safety and Nutrition 2 credit hour(s)
- ECME 2206 - Family and Community Collaboration I 3 credit hour(s)
- EDUC 2207 - Educational Psychology 3 credit hour(s)
- ECME 2214 - Guiding Young Children 3 credit hour(s)
- ECME 2230 - Infant-Toddler Growth Development and Learning 3 credit hour(s)
- ECME 2232 - Family Infant Toddler Professionals Families and Communities 3 credit hour(s)
- ECME 2234 - Caregiving for Infants and Toddlers 3 credit hour(s)

- ECME 2690 - Infant-Toddler Growth, Development and Learning Practicum 2 credit hour(s)
- ECME 2790 - Family Infant Toddler Professionals Practicum 2 credit hour(s)
- EDUC 2096-2996 - Special Topics 1-5 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- PSY 2200 - Statistical Principles 3 credit hour(s)
- PSY 2220 - Developmental Psychology 3 credit hour(s)
- PSY 2231 - Human Sexuality 3 credit hour(s)
- PSY 2232 - Clinical Psychology 3 credit hour(s)
- PSY 2271 - Social Psychology 3 credit hour(s)
- PSY 2280 - Health Psychology 3 credit hour(s)
- PSY 2289 - Death and Dying 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)
- SOC 2096-2996 - Special Topics 3 credit hour(s)
- SOC 2205 - Crime Public Policy and the Criminal Justice System 3 credit hour(s)
- SOC 2211 - Social Problems 3 credit hour(s)
- SOC 2212 - Juvenile Delinquency 3 credit hour(s)
- SOC 2213 - Deviant Behavior 3 credit hour(s)
- SOC 2215 - Criminology 3 credit hour(s)
- SOC 2216 - Ethnic and Minority Groups 3 credit hour(s)
- SOC 2225 - Sociology of Family 3 credit hour(s)
- SOC 2230 - Society and Personality 3 credit hour(s)
- SOC 2235 - Sociology of Gender 3 credit hour(s)
- SOC 2280 - Social Science Research 3 credit hour(s)
- SPAN 1101 - Beginning Spanish 4 credit hour(s) or higher
- SPED 2201 - Education of the Exceptional Person 3 credit hour(s)
- SPED 2290 - Introduction to Special Education 2 credit hour(s)

Fine Arts Electives for Social Work

- ARTH 1101 - Introduction to Art 3 credit hour(s)
- ARTH 2201 - History Of Art I 3 credit hour(s)
- ARTH 2202 - History Of Art II 3 credit hour(s)
- ARTH 2250 - Modern Art 3 credit hour(s)
- ARTH 2251 - Art of the American Southwest 3 credit hour(s)
- MUS 1139 - Early Music Appreciation 3 credit hour(s)
- MUS 1140 - Modern Music Appreciation 3 credit hour(s)
- THEA 1122 - Introduction to Theatre 3 credit hour(s)

Humanities Electives for Social Work

- Any HIST - History
- HUM 1111 - Cultures and Civilization Ancient to Renaissance 3 credit hour(s)
- HUM 1121 - Cultures and Civilization Renaissance to Present 3 credit hour(s)
- ENG 1150 - Study Of Literature 3 credit hour(s)
- ENG 2096-2996 - Special Topics in Literature 3 credit hour(s)
- ENG 2206 - Popular Literature: Detective Novel 3 credit hour(s)
- ENG 2207 - Popular Literature: Science Fiction 3 credit hour(s)
- ENG 2208 - Popular Literature: Espionage Fiction 3 credit hour(s)
- ENG 2209 - Popular Literature: Western 3 credit hour(s)
- ENG 2210 - Film as Literature 3 credit hour(s)
- ENG 2250 - Analysis of Literature 3 credit hour(s)
- ENG 2251 - Introduction to Dramatic Literature 3 credit hour(s)
- ENG 2252 - Introduction to Shakespeare 3 credit hour(s)
- ENG 2262 - Survey of Earlier World Literature 3 credit hour(s)
- ENG 2263 - Survey of Later World Literature 3 credit hour(s)
- ENG 2270 - Modern Literature 3 credit hour(s)
- ENG 2285 - Survey of Later English Literature 3 credit hour(s)
- ENG 2287 - Earlier American Literature 3 credit hour(s)
- ENG 2288 - Later American Literature 3 credit hour(s)
- PHIL 1102 - Ethics in Society 3 credit hour(s)
- PHIL 1110 - Introduction to Philosophical Thought 3 credit hour(s)
- PHIL 1156 - Logic and Critical Thinking 3 credit hour(s)
- PHIL 2245 - Business Ethics 3 credit hour(s)
- PHIL 2250 - Philosophy of Education 3 credit hour(s)
- PHIL 2257 - Formal Logic 3 credit hour(s)
- RLGN 1107 - Living World Religions 3 credit hour(s)
- RLGN 2263 - Eastern Religions 3 credit hour(s)

College Success Experience

Program Description

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 Course Descriptions for detailed course descriptions.

Full-time students who test into two or more developmental areas (Math, Reading, or English classes numbered below 1000) are encouraged 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.

Communication

Program Description

Communication focuses on how people use messages to generate meaning within and across all kinds of contexts, cultures, channels and media (Association for Communication Administration, 1995). Communication relates to all the ways people communicate, so it embraces a large body of knowledge. Communication includes both verbal and nonverbal messages as well as messages that are sent through electronic means like the phone, computer, radio and television. Students can learn more about the field from the National Communication Association.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The two-year program listed is designed to meet the requirements for an Associate of Arts in Communication from CNM and prepare a student to obtain a Bachelor of Arts in Communication at University of New Mexico. Students planning to transfer to UNM should keep in mind that the UNM Communication program offers multiple concentrations of study: Intercultural Communication, Interpersonal Communication, Mass Media, Critical Studies in Mass Media, Organizational Communication, and Public Communication.

Students interested in transfer to UNM should consult the UNM Communication department and/or advisor at (505) 277-5305. Students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Certificate and Degree Options

- Communication, Associate of Arts

Communication, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- MATH 1210

  or

- MATH 1310

- Reading 2 Proficiency

Term 1

- COMM 1101 - Introduction to Communication 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- COMM 1130 - Public Speaking 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)

Term 3

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)

Term 4

- Laboratory Science Requirement 4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Elective 3 credit hour(s) (Mathematics recommended)
- Elective 3 credit hour(s) (Humanities recommended)
- Elective 3 credit hour(s) (Social/Behavioral Science recommended)

Associate of Arts in Communication 62-64 credit hour(s)

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

Please refer to the UNM Communication Concentrations as you select which courses to take at CNM.

1Offered ONLINE ONLY.

2Transfers to UNM as CJ 115

3Transfers to UNM as 200-level Communication elective course. Does not transfer as equivalent 300- or 400-level course at UNM.

- A catalog change was made per catalog corrections team.

Program Approved Electives

Choose from the following list of courses:

- COMM 1110 - Mass Media and Society 3 credit hour(s)
- COMM 2096-2996 - Special Topics 1-3 credit hour(s)
- COMM 2223 - Introduction to Nonverbal Communication Studies 3 credit hour(s)
- COMM 2225 - Small-Group Communication Studies 3 credit hour(s)
- COMM 2232 - Business and Professional Communication Studies 3 credit hour(s) 3
- COMM 2240 - Organizational Communication 3 credit hour(s) 1,3
- COMM 2268 - Media Theories 3 credit hour(s)
- COMM 2270 - Communication Studies for Teachers 3 credit hour(s)
- COMM 2280 - Gender Communication Studies 3 credit hour(s) 1,3
- COMM 2281 - Intercultural Communication Studies 3 credit hour(s) 1,2
- COMM 2282 - Family Communication Studies 3 credit hour(s) 1
- COMM 2289 - Listening 3 credit hour(s)

Computer Information Systems

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/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.

Digital Media offers training in graphics design, 2D modeling, desktop/electronic publishing web design and audio and video editing.

Network Administration emphasizes networking from small to big enterprises using the CISCO Academy.

Software Systems and Applications provides training in software applications giving students a unique position of being a liaison between the technology and administrative areas in the business environment.

System Administration focuses on design, implementation, management and troubleshooting computer systems in a business environment. The required courses in the program cover all objectives needed to prepare for the MCITP Server and/or Enterprise Administrator exams.

Web Technology offers training in the most current technologies used for Web development.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 (2+2) program. Contact (505) 224-3811 for more information.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Computer Information Systems, Associate of Applied Science

Computer Information Systems, Associate of Applied Science

Recommended Sequence of Courses

Concentrations

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.

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 1275 - C++ Programming I 3 credit hour(s)
- CIS 1513 - Database Design and Introduction to SQL 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1310 - Intermediate Algebra 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 2

- BA 1101 - Introduction to Business 3 credit hour(s)
- CIS 2275 - C++Programming II (Object-Oriented Programming) 3 credit hour(s)
- CIS 2520 - Introduction to SQL (Structured Query Language) 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 3

- CIS 1280 - .Net I/C# 3 credit hour(s)
- CIS 1680 - Linux Essentials 3 credit hour(s)
- CIS 2235 - Java Programming I 3 credit hour(s)

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

- Human Relations Requirement 3 credit hour(s)

Term 4

- CIS 2237 - Java Programming II 3 credit hour(s)

  or

- CIS 2277 - C++Programming III (Advanced OOP) 3 credit hour(s)

  or

- CIS 2284 - .NET II/C# 3 credit hour(s)

- CIS 2999 - Capstone Course 1 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Programming Approved Elective 3 credit hour(s)

Associate of Applied Science in Computer Information Systems, Computer Programming Concentration 61 credit hour(s)

Note:

- A catalog change was made per catalog corrections team.

Programming Approved Electives

- CIS 1096-1996 - Special Topics 1-3 credit hour(s)
- CIS 1250 - Python Programming I 3 credit hour(s)
- CIS 2095 - Cooperative Education 3 credit hour(s)
- CIS 2097 - Independent Study 1-6 credit hour(s)
- CIS 2098 - Internship 3 credit hour(s)
- CIS 2237 - Java Programming II 3 credit hour(s) (if CIS 2277 or CIS 2284 taken as program elective)
- CIS 2270 - Open GL Programming 3 credit hour(s)
- CIS 2277 - C++Programming III (Advanced OOP) 3 credit hour(s) (if CIS 2237 or CIS 2284 taken as program elective)
- CIS 2284 - .NET II/C# 3 credit hour(s) (if CIS 2237 or CIS 2277 taken as program elective)
- CIS 2521 - Database Programming with PL/SQL 3 credit hour(s)
- CIS 2522 - APEX - Build Web Applications 3 credit hour(s)

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).

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 1513 - Database Design and Introduction to SQL 3 credit hour(s)
- CIS 1680 - Linux Essentials 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- BA 1101 - Introduction to Business 3 credit hour(s)
- CIS 1275 - C++ Programming I 3 credit hour(s)
- CIS 2520 - Introduction to SQL (Structured Query Language) 3 credit hour(s)

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

- MATH 1310 - Intermediate Algebra 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 3

- CIS 2521 - Database Programming with PL/SQL 3 credit hour(s)
- CIS 2522 - APEX - Build Web Applications 3 credit hour(s)
- CIS 2525 - Developing Client/Server Apps with Enterprise Databases 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 4

- Biological/Physical Science Elective 4 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- CIS 2524 - PeopleSoft Enterprise Reporting Services 3 credit hour(s)
- CIS 2999 - Capstone Course 1 credit hour(s)
- Database Approved Elective 3 credit hour(s)

Associate of Applied Science in Computer Information Systems, Database Technology Concentration 60 credit hour(s)

Database Approved Electives

- CIS 1096-1996 - Special Topics 1-3 credit hour(s)
- CIS 1250 - Python Programming I 3 credit hour(s)
- CIS 1280 - .Net I/C# 3 credit hour(s)
- CIS 1284 - .Net I/Visual Basic 3 credit hour(s)
- CIS 2095 - Cooperative Education 3 credit hour(s)
- CIS 2097 - Independent Study 1-6 credit hour(s)
- CIS 2098 - Internship 3 credit hour(s)
- CIS 2096-2996 - Special Topics 1-3 credit hour(s)
- CIS 2235 - Java Programming I 3 credit hour(s)
- CIS 2275 - C++Programming II (Object-Oriented Programming) 3 credit hour(s)
- CIS 2284 - .NET II/C# 3 credit hour(s)

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.

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1101 - Introduction to Business 3 credit hour(s)

  or

- BA 1105 - Introduction to Entrepreneurship 3 credit hour(s)

- CIS 1310 - Introduction to Digital Media 3 credit hour(s)
- CIS 1325 - Visual Communication 3 credit hour(s)

- CIS 1713 - XHTML Complete 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ARTS 1121 - Two-Dimensional Design 3 credit hour(s)
- BA 1121 - Business English 3 credit hour(s)
- CIS 1330 - Photoshop 3 credit hour(s)
- CIS 2340 - Dreamweaver 2 credit hour(s)
- CIS 2360 - Digital Video Editing 3 credit hour(s)

Term 3

- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 2310 - Page Layout and Type Design 3 credit hour(s)
- CIS 2350 - Flash 3 credit hour(s)
- CIS 2355 - Adobe Illustrator 3 credit hour(s)
- CIS 2381 - Advanced Photoshop 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 4

- CIS 2336 - Post Production Special Effects 3 credit hour(s)
- CIS 2375 - Digital Design Studio 3 credit hour(s)
- CIS 2999 - Capstone Course 1 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096)

Associate of Applied Science in Computer Information Systems, Digital Media Concentration 63 credit hour(s)

Networking 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.

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 1410 - IT Essentials I: PC Hardware and Software 3 credit hour(s)
- CIS 1680 - Linux Essentials 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- BA 1101 - Introduction to Business 3 credit hour(s)
- CIS 1415 - Networking for Home and Small Business 3 credit hour(s)
- CIS 1425 - Network Topologies/Cisco Academy Semester 1 3 credit hour(s)

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

- MATH 1310 - Intermediate Algebra 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 3

- Biological/Physical Science Elective 4 credit hour(s)

- CIS 2420 - Basic Router Config./Cisco Academy Semester 2 3 credit hour(s)
- CIS 2423 - Local Area Network Management/Cisco Academy Semester 3 3 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- Networking Approved Elective 3 credit Hour(s)

Term 4

- CIS 2425 - Wide Area Network Management/Cisco Academy Semester 4 3 credit hour(s)
- CIS 2427 - Troubleshooting Networks 3 credit hour(s)
- CIS 2450 - Fundamentals of Network Security 3 credit hour(s)
- CIS 2999 - Capstone Course 1 credit hour(s)
- Human Relations Requirement 3 credit hour(s)

Associate of Applied Science in Computer Information Systems, Network Administration Concentration 60 credit hour(s)

Networking Approved Electives

- CIS 1096-1996 - Special Topics 1-3 credit hour(s)
- CIS 1250 - Python Programming I 3 credit hour(s)
- CIS 1275 - C++ Programming I 3 credit hour(s)
- CIS 1513 - Database Design and Introduction to SQL 3 credit hour(s)
- CIS 1610 - Windows Client Software for Systems Administrators 3 credit hour(s)
- CIS 1715 - Overview of Web Technologies 3 credit hour(s)
- CIS 2095 - Cooperative Education 3 credit hour(s)
- CIS 2096-2996 - Special Topics 1-3 credit hour(s)
- CIS 2097 - Independent Study 1-6 credit hour(s)
- CIS 2098 - Internship 3 credit hour(s)

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.

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- ACCT 1109 - Business Math 3 credit hour(s)
- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 1130 - Windows 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1171 - Working with the Challenging Customer 1 credit hour(s)
- OTEC 1173 - Time Management Skills 1 credit hour(s)

Term 2

- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1101 - Introduction to Business 3 credit hour(s)
- CIS 1120 - Microsoft Word 3 credit hour(s)
- CIS 1145 - Microsoft Powerpoint 2 credit hour(s)
- CIS 1150 - MS Outlook 1 credit hour(s)
- MATH 1310 - Intermediate Algebra 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 3

- CIS 1173 - Excel Complete 3 credit hour(s)
- CIS 1185 - Adobe Acrobat 1 credit hour(s)
- CIS 1420 - Introduction to Computer Networking 3 credit hour(s)
- CIS 2120 - Hardware and Software Administration 3 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 4

- ACCT 1410 - Quickbooks Complete 3 credit hour(s)

- CIS 1183 - Access Complete 3 credit hour(s)
- CIS 2111 - Project Management 3 credit hour(s)
- CIS 2999 - Capstone Course 1 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- Software Systems and Applications Approved Elective 3 credit hour(s)

Associate of Applied Science in Computer Information Systems, Software Systems and Applications Concentration 62-63 credit hour(s)

Software Systems and Applications Approved Electives

- CIS 1330 - Photoshop 3 credit hour(s)
- CIS 2340 - Dreamweaver 2 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- ENG 1119 - Technical Communications 3 credit hour(s)
- ENG 2219 - Technical Writing 3 credit hour(s)

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.

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1101 - Introduction to Business 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 1420 - Introduction to Computer Networking 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1310 - Intermediate Algebra 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 2

- Biological/Physical Science Elective 4 credit hour(s)
- CIS 1610 - Windows Client Software for Systems Administrators 3 credit hour(s)
- CIS 2620 - Windows Server Management 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)

Term 3

- CIS 2120 - Hardware and Software Administration 3 credit hour(s)
- CIS 2630 - Windows Server Application Infrastructure Configuration 3 credit hour(s)
- CIS 2635 - Windows Directory Services Management 3 credit hour(s)
- CIS 2650 - Windows Server Network Infrastructure Configuration 3 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

Term 4

- CIS 2670 - Computer Security+ 3 credit hour(s)
- CIS 2999 - Capstone Course 1 credit hour(s)

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

- Human Relations Requirement 3 credit hour(s)
- Systems Administration Approved Elective 3 credit hour(s)

Associate of Applied Science in Computer Information Systems, Systems Administration Concentration 60 credit hour(s)

Systems Administration Approved Electives

- CIS 2096-2996 - Special Topics 1-3 credit hour(s)
- CIS 1173 - Excel Complete 3 credit hour(s)
- CIS 1250 - Python Programming I 3 credit hour(s)
- CIS 1275 - C++ Programming I 3 credit hour(s)
- CIS 1280 - .Net I/C# 3 credit hour(s)
- CIS 1425 - Network Topologies/Cisco Academy Semester 1 3 credit hour(s)
- CIS 1680 - Linux Essentials 3 credit hour(s)
- CIS 1715 - Overview of Web Technologies 3 credit hour(s)
- CIS 2095 - Cooperative Education 3 credit hour(s)
- CIS 2097 - Independent Study 1-6 credit hour(s)
- CIS 2098 - Internship 3 credit hour(s)

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.

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1101 - Introduction to Business 3 credit hour(s)

  or

- BA 1105 - Introduction to Entrepreneurship 3 credit hour(s)

- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 1715 - Overview of Web Technologies 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- CIS 1210 - JavaScript I 3 credit hour(s)
- CIS 1330 - Photoshop 3 credit hour(s)
- CIS 1713 - XHTML Complete 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)
- Human Relations Requirement 3 credit hour(s)

Term 3

- CIS 1513 - Database Design and Introduction to SQL 3 credit hour(s)
- CIS 1730 - JavaScript Programming II 3 credit hour(s)
- CIS 1750 - Web Programming with PHP 3 credit hour(s)
- CIS 2760 - Webmaster Tools 3 credit hour(s)
- CIS 2340 - Dreamweaver 2 credit hour(s)
- CIS 2740 - Cascading Style Sheets 3 credit hour(s)

Term 4

- Biological/Physical Science Elective 4 credit hour(s)
- CIS 1680 - Linux Essentials 3 credit hour(s)
- CIS 2350 - Flash 3 credit hour(s)
- CIS 2999 - Capstone Course 1 credit hour(s)

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

Associate of Applied Science Computer Information Systems, Web Technology Concentration 61-62 credit hour(s)

Construction Management Technology

Program Description

- Our mission is to provide students with the necessary knowledge, essential skills, and leadership abilities in order to contribute to a construction team. Emphasis is placed on developing the skills necessary to use state of the art technology.
- Students are eligible for the Student Excellence Awards and Student Academic Achievement Certificates.
- We ensure program academic quality improvement through assessment of both program core and exit competencies.
- Graduating From CNM
- This program is the only accredited two-year program in New Mexico, and is accredited by the American Council for Construction Education (ACCE).

Special Requirements

Level of experience for entering students varies; it is recommended for new students to meet with the program representative to develop an appropriate schedule.

Cost and Financial Aid

Financial Aid and Scholarship Services offer assistance to students paying for college. Students can set up payment plans as well as other services.

- Tuition Information
- Net Price Calculator
  To help you identify your total cost of attending CNM

Career and Educational Opportunities

Graduates are prepared for entry-level management and supervisory employment in the construction industry, including positions such as: general contractor, estimator, project manager, inspector, office manager, crew leader, expeditor, superintendent, sales representative, and safety officer.

Employment may be available working for general contractors, subcontractors, material suppliers, homebuilders, and other businesses.

- Gainful Employment information is available from Job Connection Services.

Many of our courses are transferable to universities and CNM currently has transfer agreements with many colleges in New Mexico.

Certificate and Degree Options

- Construction Estimating and Scheduling, Certificate of Completion
- Construction Management Technology, Associate of Applied Science

Construction Estimating and Scheduling, Certificate of Completion

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 program.

Special Requirements

Because 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

Gainful Employment information is available from Job Connection Services.

Students are prepared for entry level positions as construction estimators and schedulers.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency
- IT 1010

Term 1

- CM 1105 - Construction Detailing 3 credit hour(s) **
- CM 1110 - Construction Materials and Techniques 3 credit hour(s) **
- CM 1205 - Computer Aided Construction Drafting/Engineering 3 credit hour(s) **
- CM 1115 - Commercial Construction Theory 3 credit hour(s)

- CIS 1170 - Excel Fundamentals 1 credit hour(s)

  or

- CIS 1173 - Excel Complete 3 credit hour(s)

Term 2

- CM 1210 - Mechanical Electrical Systems and Construction 3 credit hour(s) **
- CM 1305 - Construction Estimating 3 credit hour(s) **
- CM 1220 - Introduction to Construction Project Management 3 credit hour(s)

Term 3

- CM 2105 - Construction Scheduling 3 credit hour(s) **
- CM 2115 - Computerized Estimating Techniques 3 credit hour(s) **

Certificate of Completion in Construction Estimating and Scheduling 28-30 credit hour(s)

In accordance with a transfer agreement, courses marked with ** may be applied toward the Bachelor of Science degree in Construction Management at the University of New Mexico.

Construction Management Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency
- Math 3 Proficiency

Term 1

- CM 1105 - Construction Detailing 3 credit hour(s) *
- CM 1110 - Construction Materials and Techniques 3 credit hour(s) *
- CM 1115 - Commercial Construction Theory 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s) *
- MATH 1310 - Intermediate Algebra 4 credit hour(s) or higher

Term 2

- CM 1205 - Computer Aided Construction Drafting/Engineering 3 credit hour(s) *
- CM 1210 - Mechanical Electrical Systems and Construction 3 credit hour(s) *
- CM 1215 - Construction Equipment and Methods 3 credit hour(s)
- CM 1220 - Introduction to Construction Project Management 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 3

- ACCT 1111 - Accounting IA 3 credit hour(s)
- CM 1305 - Construction Estimating 3 credit hour(s) *

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

or

- Communications Approved Elective 3 credit hour(s)

- OSH 2006 - Occupational Safety for Construction I 1 credit hour(s)
- OSH 2009 - Occupational Safety for Construction II 2 credit hour(s)
- PHYS 1010 - Introduction to Physics 3 credit hour(s) or higher

Term 4

- CM 2105 - Construction Scheduling 3 credit hour(s) *
- CM 2115 - Computerized Estimating Techniques 3 credit hour(s) *
- CM 2120 - Statics 3 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Humanities Requirement 3 credit hour(s)

or

- Social/Behavioral Science Requirement 3 credit hour(s)

Term 5

- CM 2205 - Construction Surveying 3 credit hour(s) *
- CM 2210 - General Contractor Preparation 3 credit hour(s)
- CM 2999 - Construction Management Capstone Course 1 credit hour(s)
- BA 2240 - Business Law 3 credit hour(s)
- Technical Approved Elective 3 credit hour(s)

Associates of Applied Science in Construction Management Technologies 74-75 credit hour(s)

* In accordance with a transfer agreement, courses may be applied toward the Bachelor of Science degree in Construction Management at the University of New Mexico.

- A catalog change was made per catalog corrections team.

Program Approved Electives

Communications Approved Electives

- COMM 2225 - Small-Group Communication Studies 3 credit hour(s)
- COMM 2232 - Business and Professional Communication Studies 3 credit hour(s)
- COMM 2240 - Organizational Communication 3 credit hour(s)

Technical Approved Electives

- BA 2232 - Supervision 3 credit hour(s)
- CM 2215 - Estimating and Bidding 3 credit hour(s)
- CM 2220 - Computerized Project Management and Scheduling 3 credit hour(s) *
- CM 2997 - Independent Study 1-7 credit hour(s)
- CM 2998 - Internship 3 credit hour(s)
- PM 2200 - Budget and Resource Management 3 credit hour(s)
- PM 2210 - Contract Management 3 credit hour(s)

Construction Technology

Program Description

- 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Construction Technology, Associate of Applied Science

Construction Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Concentrations

- General Construction
- Electrical
- Electrical-Photovoltaic Installation

General Construction Concentration

Term 1

- CARP 1005 - Carpentry Blueprint Reading I 4 credit hour(s)
- CARP 1030 - Carpentry Theory 1 3 credit hour(s)
- CARP 1392 - Construction Lab A 5 credit hour(s)
- OSH 2006 - Occupational Safety for Construction I 1 credit hour(s)

Term 2

- CARP 1492 - Construction Lab B 5 credit hour(s)
- CARP 2005 - Carpentry Blueprint Reading II 4 credit hour(s)
- CARP 2030 - Carpentry Theory 2 3 credit hour(s)
- CM 1105 - Construction Detailing 3 credit hour(s)

Term 3

- CARP 2130 - Metal Stud Framing 2 credit hour(s)
- CM 1110 - Construction Materials and Techniques 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 4

- CARP 2230 - Concrete Forming and Rigging 2 credit hour(s)
- CM 1115 - Commercial Construction Theory 3 credit hour(s)

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Term 5

- CARP 2999 - Carpentry Capstone Course 1 credit hour(s)
- CM 1305 - Construction Estimating 3 credit hour(s)
- CM 1215 - Construction Equipment and Methods 3 credit hour(s)

- Humanities Requirement 3 credit hour(s)

  or

- Social/Behavioral Science Requirement 3 credit hour(s)

Associate of Applied Science in Construction Technology, General Construction Concentration 60-61 credit hour(s)

Note:

- A catalog change was made per catalog corrections team.

Electrical Concentration

Term 1

- ELTR 1005 - Electrical Theory I 4 credit hour(s)
- ELTR 1015 - Electrical Math I 4 credit hour(s)
- ELTR 1020 - Electrical DC/AC Lab 3 credit hour(s)
- ELTR 1030 - AC Circuity, Motors, Generators 3 credit hour(s)

Term 2

- ELTR 1210 - Electrical Theory II 4 credit hour(s)
- ELTR 1215 - Blueprint Reading I 4 credit hour(s)
- ELTR 1220 - Residential Wiring Lab 3 credit hour(s)
- ELTR 1230 - Residential Electrical Services 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Term 3

- ELTR 2005 - Electrical Theory III 4 credit hour(s)
- ELTR 2015 - Electrical Motor Control Theory 4 credit hour(s)
- ELTR 2020 - Industrial Motor Control Lab 3 credit hour(s)
- ELTR 2030 - Industrial Power Distribution 3 credit hour(s)

Term 4

- ELTR 2210 - Programmable Logic Controller Theory 4 credit hour(s)
- ELTR 2220 - PLC Installation and Operation 3 credit hour(s)
- ELTR 2230 - PLC Systems Operation and Troubleshooting 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 5

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- ELTR 2999 - Electrical Trades Capstone Course 1 credit hour(s)

- Fine Arts Requirement 3 credit hour(s)

  or

- Humanities Requirement 3 credit hour(s)

  or

- Social/Behavioral Science Requirement 3 credit hour(s)

- IT 1010 - Introduction to Computers 3 credit hour(s)

Associate of Applied Science in Construction Technology, Electrical Concentration 68-69 credit hour(s)

Electrical Photovoltaic Installation Concentration

Term 1

- ELTR 1005 - Electrical Theory I 4 credit hour(s)
- ELTR 1015 - Electrical Math I 4 credit hour(s)
- ELTR 1020 - Electrical DC/AC Lab 3 credit hour(s)
- ELTR 1030 - AC Circuity, Motors, Generators 3 credit hour(s)

Term 2

- ELTR 1215 - Blueprint Reading I 4 credit hour(s)
- ELTR 1210 - Electrical Theory II 4 credit hour(s)
- ELTR 1220 - Residential Wiring Lab 3 credit hour(s)
- ELTR 1230 - Residential Electrical Services 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Term 3

- ELTR 2005 - Electrical Theory III 4 credit hour(s)
- ELTR 2015 - Electrical Motor Control Theory 4 credit hour(s)
- ELTR 2020 - Industrial Motor Control Lab 3 credit hour(s)
- ELTR 2030 - Industrial Power Distribution 3 credit hour(s)

Term 4

- ELTR 2610 - Photovoltaic Installation Safety 2 credit hour(s)
- ELTR 2620 - Photovoltaic Theory/Design and Installation 3 credit hour(s)
- ELTR 2630 - Advanced PV Theory /Design/ Installation/ Maintenance and Commissioning 4 credit hour(s)
- ELTR 2692 - PV Installation Lab 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 5

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- ELTR 2999 - Electrical Trades Capstone Course 1 credit hour(s)

- Humanities Requirement 3 credit hour(s)

  or

- Social/Behavioral Science Requirement 3 credit hour(s)

- IT 1010 - Introduction to Computers 3 credit hour(s)

Associate of Applied Science in Construction Technology, Electrical Photovoltaic Installation Concentration 70-71 credit hour(s)

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 68-69 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, pedicures, salon business and retail sales. Students can earn licensure by the New Mexico Board of Barbers and Cosmetologists after passing the state exam. This program's first term courses are offered fall term and spring term only. This may delay a student's program start date. Please check with an academic advisor for more information

Special Requirements

Student equipment and textbooks are required to complete the cosmetology courses. 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.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Cosmetology, Associate of Applied Science

Cosmetology, Associate of Applied Science

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Required Program Courses

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
-
- Fine Arts Requirement 3 credit hour(s)

  or
- Foreign Language Elective 3 credit hour(s)
-
- Humanities Requirement 3 credit hour(s)

  or
- Social/Behavioral Science Requirement 3 credit hour(s)
-
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (MATH 1315 Recommend if planning on transferring to a 4-year degree)

Term 1

This program's first term courses are offered fall term and spring term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- COS 1010 - Orientation 2 credit hour(s)
- COS 1020 - Cosmetology Fundamentals I 6 credit hour(s)
- COS 1030 - Cosmetology Fundamentals II 6 credit hour(s)

Term 2

- COS 1080 - Salon Theory I 2 credit hour(s)
- COS 1092 - Hair Service Lab II 5 credit hour(s)
- COS 1193 - Skin/Nails Service 4 credit hour(s)

Term 3

- COS 2080 - Salon Theory II 1 credit hour(s)

- COS 2093 - Hair Service III 5 credit hour(s)
- COS 2492 - Facials/Manicuring/Pedicuring Lab III 4 credit hour(s)

Term 4

- COS 2505 - Salon Operation Theory 1 credit hour(s)
- COS 2510 - Advanced Salon Theory 2 credit hour(s)
- COS 2511 - State Laws/Regulations 1 credit hour(s)
- COS 2592 - Salon Operation Lab (Externship) 3 credit hour(s)
- COS 2692 - Advanced Salon Lab 4 credit hour(s)
- COS 2693 - Advanced Salon Lab II 4 credit hour(s)

Associate of Applied Science in Cosmetology 68-69 credit hour(s)

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

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in myCNM.

Certificate and Degree Options

- Criminal Justice, Associate of Applied Science

Criminal Justice, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- CJ 1001 - Introduction to Criminal Justice 3 credit hour(s)
- CJ 1002 - Criminal Law 3 credit hour(s)
- CJ 1007 - Criminal Procedure 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Term 2

- CJ 1502 - Juvenile Law and Procedure 3 credit hour(s)
- CJ 1509 - Introduction to Security Services 3 credit hour(s)

  or
- CJ 1580 - Patrol Practices 3 credit hour(s)
- CJ 1518 - Report Writing 3 credit hour(s)
- FITT 1792 - Physical Fitness I 1 credit hour(s)

  or
- FITT 2093 - Extreme Conditioning 1 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (MATH 1315 Recommend if planning on transferring to a 4-year degree)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

Term 3

- CJ 2515 - Criminal Investigation 3 credit hour(s)
- SOC 2215 - Criminology 3 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)
-

Term 4

- CJ 2505 - Community-Oriented Policing 3 credit hour(s)
- CJ 2511 - Correctional Services 3 credit hour(s)
- CJ 2692 - Criminal Investigation Laboratory 1 credit hour(s)
- CJ 2999 - Criminal Justice Capstone Course 1 credit hour(s)
- Program Approved Elective 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)

Associates of Applied Science in Criminal Justice 66-67

Program Approved Electives

Choose 9 credit hours from the following courses:

- CJ 2005 - Probation and Parole 3 credit hour(s)
- CJ 2006 - Rules of Criminal Evidence 3 credit hour(s)
- CJ 2007 - White Collar Crimes 3 credit hour(s)
- CJ 2008 - Organized Crime and Terrorism 3 credit hour(s)
- CJ 2009 - Management for Criminal Justice Professionals 3 credit hour(s)

- CJ 2011 - Public Policies and Strategies 3 credit hour(s)
- CJ 2096-2996 - Special Topics 1-6 credit hour(s)
- CJ 2512 - Juvenile Corrections 3 credit hour(s)
- CJ 2513 - Institutional Corrections 3 credit hour(s)
- CJ 2514 - Introduction to Homeland Security 3 credit hour(s)
- CJ 2515 - Criminal Investigation 3 credit hour(s)
- CJ 2516 - Transportation and Border Security 3 credit hour(s)
- CJ 2517 - Intelligence Analysis and Security Management 3 credit hour(s)
- CJ 2695 - Cooperative Education 3 credit hour(s)
- CJ 2697 - Independent Study 1-6 credit hour(s)
- CJ 2698 - Internship 3 credit hour(s) (Students may receive credit for one specialty internship as an elective in the program)

Choose 6 credit hours from the following courses:

- Any CJ 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)
- CSE 1101 - College Success 3 credit hour(s)
- EMS 1001 - EMS First Responder Theory 2 credit hour(s)
- EMS 1053 - EMT Basic Theory 6 credit hour(s)
- EMS 1091 - EMS First Responder Lab 1 credit hour(s)
- EMS 1093 - EMT Basic Lab 2 credit hour(s)
- EMS 1190 - EMT Basic Clinical 1 credit hour(s)
- PL 1110 - Introduction to Paralegal Studies 3 credit hour(s)
- PL 1120 - American Law and Ethics 3 credit hour(s)
- PL 2130 - Criminal Litigation 3 credit hour(s)
- PL 2150 - Evidence 3 credit hour(s)
- PL 2440 - Criminal Litigation II 3 credit hour(s)

Criminology

Program Description

Criminology is the scientific study of crime, including the measurement, etiology, consequences, prevention, control, and treatment of crime and delinquency. The criminology major is well-suited for students interested in parole and probation careers, criminal justice employment as well as law school. Information about career options for criminology majors is offered by the American Sociological Association and the American Society of Criminology.

Special Requirements

In addition to the UNM criminology requirements shown in the term-by-term outline, students can transfer six credit hours of CNM sociology courses listed on the UNM approved electives list for criminology majors; these include SOC 2211 Social Problems, SOC 2213 Deviant Behavior , and SOC 2216 Ethnic and Minority Groups. CNM sociology courses not listed here transfer to UNM as electives. The UNM Department of Sociology will accept 6 credit hours from CNM's Criminal Justice program (courses with a CJ prefix); the hours will transfer as electives for UNM criminology majors. The Criminal Justice (CJ) credit hours do not count toward the CNM Liberal Arts degree.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The two-year program listed is designed to meet the requirements for an Associate of Arts in Criminology from CNM and prepare a student to obtain a Bachelor of Arts in Criminology at University of New Mexico. However, students from CNM seeking a baccalaureate degree may also transfer to other institutions. Criminology majors interested in transfer to UNM should consult the UNM Sociology Department and/or advisor at (505) 277-2501. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Certificate and Degree Options

- Criminology, Associate of Arts

Criminology, Associate of Arts

Recommended Course Sequence

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- MATH 1210

  or

- MATH 1310

- Reading 2 Proficiency

Term 1

- SOC 1101 - Introduction To Sociology 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- SOC 2205 - Crime Public Policy and the Criminal Justice System 3 credit hour(s)

  or

- SOC 2215 - Criminology 3 credit hour(s)

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)

Term 3

- SOC 2211 - Social Problems 3 credit hour(s)

  or

- SOC 2213 - Deviant Behavior 3 credit hour(s)

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
-
- Laboratory Science Requirement 4 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 4

- SOC 2280 - Social Science Research 3 credit hour(s)
- Program Approved Requirement 3 credit hour(s)
- Elective 3 credit hour(s) (Math recommended)
- Elective 3 credit hour(s) (Humanities recommended)
- Elective 3 credit hour(s) (Fine Arts recommended)

Associate of Arts in Criminology 62-64 credit hour(s)

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

Program Approved Requirements

Choose from the following courses:

- SOC 2211 - Social Problems 3 credit hour(s)
- SOC 2213 - Deviant Behavior 3 credit hour(s)

- SOC 2216 - Ethnic and Minority Groups 3 credit hour(s)

Culinary Arts

Program Description

The mission of CNM's Culinary Arts Program is to teach 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 four term program. Students will 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 Accrediting Commission (ACFFAC) nationally accredits this program. Upon completion of the associate of applied science degree program, students are eligible to become certified culinarians and/or certified pastry cooks through ACF depending on the concentration chosen. 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 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

Gainful Employment information is available from Job Connection Services.

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 and managers or 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, Culinary Fundamentals, and Baking. Many classes will transfer to four year institutions. Students interested in continuing for a bachelor degree should meet with the Business & Information Technology academic advisor or program director.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificates of Completion available in Baking; Culinary Fundamentals; Food Service Management.

Certificate and Degree Options

- Culinary Arts, Associate of Applied Science

Culinary Arts, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Concentrations

- Advanced Baking and Pastry Concentration
- Culinary Arts Concentration
-

Advanced Baking and Pastry Concentration

Term 1

- CULN 1100 - Introduction to Culinary Skills 3 credit hour(s)
- CULN 1103 - Safety and Sanitation Principles 3 credit hour(s)
- CULN 1110 - Culinary Skills 4 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 2

- Choice Requirement 3-4 credit hour(s)
- CULN 1112 - Cooking Fundamentals 5 credit hour(s)
- HT 2215 - Purchasing and Cost Controls 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)

Term 3

- CULN 1130 - Introduction to Baking Fundamentals 5 credit hour(s)
- CULN 1132 - Applied Baking Principles 5 credit hour(s)
- NUTR 1010 - Personal Practical Nutrition 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Term 4

- CULN 2232 - Advanced Baking and Pastry 5 credit hour(s)
- HT 2201 - Hospitality Operations Management 3 credit hour(s)
- Program Approved Electives 7-9 credit hour(s)

Associate of Applied Science in Culinary Arts, Advanced Baking and Pastry Concentration 61-64 credit hour(s)

- A catalog change was made per catalog corrections team.

Culinary Arts Concentration

Term 1

- CULN 1100 - Introduction to Culinary Skills 3 credit hour(s)
- CULN 1103 - Safety and Sanitation Principles 3 credit hour(s)
- CULN 1110 - Culinary Skills 4 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 2

- CULN 1130 - Introduction to Baking Fundamentals 5 credit hour(s)
- CULN 1132 - Applied Baking Principles 5 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher
- NUTR 1010 - Personal Practical Nutrition 3 credit hour(s) or higher

Term 3

- Choice Requirement 3-4 credit hour(s)
- CULN 1112 - Cooking Fundamentals 5 credit hour(s)
- HT 2215 - Purchasing and Cost Controls 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)

Term 4

- CULN 2212 - Global Cuisines 5 credit hour(s)
- HT 2201 - Hospitality Operations Management 3 credit hour(s)
- HT 1164 - Food and Beverage Service 3 credit hour(s)
- Program Approved Electives 4-5 credit hour(s)

Associate of Applied Science in Culinary Arts, Culinary Arts Concentration 62-63 credit hour(s)

* MATH 1315, MATH 1320, MATH 1330, MATH 1710 transfers to NMSU School of HRTM

Program Approved Electives

- ACCT Courses 3-6 credit hour(s)
- BA Courses 3-6 credit hour(s)
- CIS courses 3 credit hour(s)
- CSE 1101 - College Success or higher
- CULN Courses 3-5 credit hour(s) (except those required for the degree)
- FITT courses 1-3 credit hour(s)

- FREN 1101 - Beginning French I or higher
- HT Courses 3-4 credit hour(s)
- NUTR Courses 3 credit hour(s)
- SPAN 1101 - Beginning Spanish or higher

Culinary Fundamentals

Program Description

The Culinary Fundamentals certificate is a two-term program. Cooking is an excellent field for students seeking a challenging career in a rapidly growing culinary and hospitality industry. Students will study cooking techniques, safety, sanitation, nutrition, knife skills, teamwork skills, equipment use, culinary math and computer skills. Classes include classroom and lab time.

The certificate program is a required part of the Associate of Applied Science Degree which is nationally accredited by the American Culinary Federation Foundation Accrediting Commission (ACFFAC). 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 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Culinary Fundamentals, Certificate of Completion

Culinary Fundamentals, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- CULN 1100 - Introduction to Culinary Skills 3 credit hour(s)
- CULN 1110 - Culinary Skills 4 credit hour(s)
- CULN 1103 - Safety and Sanitation Principles 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- CULN 1112 - Cooking Fundamentals 5 credit hour(s)
- Program Approved Electives 7-8 credit hour(s)

Certificate of Completion in Culinary Fundamentals 25-26 credit hour(s)

Program Approved Electives

- ACCT Courses 3-6 credit hour(s)
- BA Courses 3-6 credit hour(s)
- CIS courses 3 credit hour(s)
- CSE 1101 - College Success 1-3 credit hour(s) or higher
- CULN Courses 3-5 credit hour(s) (except those required for the degree)
- FITT courses 1-3 credit hour(s)
- FREN 1101 - Beginning French I 3-4 credit hour(s) or higher
- HT Courses 3-4 credit hour(s)
- NUTR Courses 3 credit hour(s)
- SPAN 1101 - Beginning Spanish 3-4 credit hour(s) or higher

Dental Assisting

Program Description

Dental Assisting is a three-term program accredited by the Commission on Dental Assisting 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.

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Dental Assistant, Certificate of Completion

Dental Assistant, Certificate of Completion

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- High School Diploma or Equivalent
- Coordinated Entry Program
- English 2 Proficiency
- Math 1 Proficiency
- Reading 2 Proficiency
- HLTH 1001 or a current cardiopulmonary resuscitation (CPR) certificate from a DANB-accepted CPR provider and course.

Required Courses

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- DA 1010 - Dental Science I 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 1 (Fall Only)

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- DA 1101 - Practical Application of Dental Materials 2 credit hour(s)
- DA 1104 - Tooth Morphology Histology an Recordings 3 credit hour(s)
- DA 1107 - Principles and Techniques of Dental Radiology I 2 credit hour(s)
- DA 1119 - Fundamentals of Chairside Assisting I 2 credit hour(s)
- DA 1192 - Practical Application of Dental Materials Lab 1 credit hour(s)
- DA 1193 - Principals and Techniques of Dental Radiology I Lab 1 credit hour(s)
- DA 1292 - Fundamentals of Chairside Assisting I Lab 1 credit hour(s)

Term 2

- DA 1512 - Dental Science II 3 credit hour(s)
- DA 1517 - Principles and Techniques of Dental Radiology II 2 credit hour(s)
- DA 1519 - Fundamentals of Chairside Assisting II 2 credit hour(s)
- DA 1590 - Clinical Experience I 6 credit hour(s)
- DA 1592 - Fundamentals of Chairside Assisting II Lab 1 credit hour(s)
- DA 1593 - Principles and Techniques of Dental Radiology II Lab 1 credit hour(s)

Term 3

- DA 2090 - Clinical Experience II 5 credit hour(s)
- DA 2408 - Dental Administration and Communication 1 credit hour(s)
- DA 2492 - Dental Administration and Communications Lab 1 credit hour(s)
- DA 2513 - Introduction to Dental Specialties 2 credit hour(s)
- DA 2593 - Introduction to Dental Specialties Lab 1 credit hour(s)

Dental Assistant, Certificate of Completion 46 credit hour(s)

Developmental Education

Description

The Developmental Education (DE) program offers courses to help students prepare for college in College Success Experience (CSE), English, English for Speakers of Other Languages (ESOL), 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 proficiencies. 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. 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.

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", "Obstetrics and Gynecology" and "Breast". Successful completion of this exam results in attaining the RDMS (Registered Diagnostic Medical Sonographer) credential. The program sonography program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) Commission on Accreditation of Allied Health Education Programs in collaboration with the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS).

JRC-DMS

6021 University Boulevard, Suite 500

Ellicott City, MD 21043

Email address: mail@jrcdms.org

Primary contacts: Cindy Weiland or Gerry Magat

Phone number: 443-973-3251

Commission on Accreditation of Allied Health Education Programs

1361 Park Street

Clearwater, FL 33756

Phone: 727-210-2350

Fax: 727-210-2354

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

There is currently a nationwide demand for registered sonographers. Graduates will be employed as sonographers in hospitals, physician's offices and private sonography practices.

Gainful Employment information is available from Job Connection Services.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Diagnostic Medical Sonography, Associate of Applied Science

Diagnostic Medical Sonography, Associate of Applied Science

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- English 2 Proficiency
- MATH 1310
- Reading 2 Proficiency
-
- BIO 1410

  and
- BIO 1492

  or
- BIO 1510/1592
-
- CHEM 1410

  and
- CHEM 1492

  or
- CHEM 1710

  and
- CHEM 1792

Required Courses

- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s)
- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)
- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)
- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s)

- PHYS 1510 - Physics I 4 credit hour(s)
- PHYS 1592 - Physics I Laboratory 1 credit hour(s)

Term 1 (Fall)

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- DMS 1010 - Introduction to Diagnostic Medical Sonography 1 credit hour(s)
- DMS 1112 - Sonographic Anatomy 2 credit hour(s)
- DMS 1192 - Sonographic Anatomy Lab 1 credit hour(s)
- DMS 1085 - Sonographic Concepts 3 credit hour(s)
- DMS 1093 - Sonographic Concepts Lab 1 credit hour(s)
- DMS 1075 - Intro to Sonographic Physics 2 credit hour(s)
- HLTH 1001 - Clinical Preparation 1 credit hour(s)

Term 2

- DMS 1503 - DMS Pathophysiology I 3 credit hour(s)
- DMS 1511 - General Sonography I 2 credit hour(s)
- DMS 1590 - Clinical Sonography I 4 credit hour(s)
- DMS 1575 - Sonographic Physics I 2 credit hour(s)

Term 3

- DMS 2003 - DMS Pathophysiology II 3 credit hour(s)
- DMS 2092 - Sonography II 2 credit hour(s)
- DMS 2090 - Clinical Sonography II 5 credit hour(s)
- DMS 2075 - Sonography Physics II 2 credit hour(s)

Term 4

- DMS 2590 - General Sonography Internship 10 credit hour(s)
- DMS 2592 - Clinical Seminar 1 credit hour(s)

Associate of Applied Science in Diagnostic Medical Sonography 70 credit hour(s)

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Diesel Equipment Technology, Certificate of Completion

Diesel Equipment Technology, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 1 Proficiency
- Math 2 Proficiency
- Reading 1 Proficiency

Term 1

- DETC 1110 - Introduction to Diesel Technology 4 credit hour(s)
- DETC 1120 - Heavy Duty Brake Systems 4 credit hour(s)
- DETC 1130 - Heavy Duty Suspension and Steering 4 credit hour(s)
- DETC 1150 - Diesel Equipment Electrical Systems 4 credit hour(s)

Term 2

- DETC 1210 - Heavy Duty Engine Repair 4 credit hour(s)
- DETC 1220 - Automatic Transmissions and Hydraulics 4 credit hour(s)
- DETC 1230 - Medium/Heavy Duty Air Conditioning and Heating 3 credit hour(s)
- DETC 1240 - Diesel Equipment Electronic Systems 4 credit hour(s)

Term 3

- DETC 1140 - Manual Shift Transmissions and Axles 4 credit hour(s)
- DETC 2110 - Preventive Maintenance 4 credit hour(s)
- DETC 2120 - Diesel Engine Performance 4 credit hour(s)
- DETC 2198 - Diesel Equipment Internship 1 credit hour(s)

Certificate of Completion in Diesel Equipment Technology 44 credit hour(s)

Dietary Manager

Program Description

The Dietary Manager Certificate of Completion is a two-term, 23 - 28 credit hour program that focuses on the principles and practices relating to the administration of food service systems in institutional settings, and that prepares individuals to manage such operations in public and private facilities. Dietary Managers work with registered dietitians to provide quality food production, service, and nutritional care and are an integral part of health care and food service management teams. The program will include instruction in human nutrition, food safety, the design and organization of food service systems, purchasing, and personnel management. The program includes classroom and lab time. Students will complete 180 hours of supervised practice in accredited facilities. Upon completion of the program, students will be eligible to sit for the Dietary Manager Association's national exam and earn the CDM (Certified Dietary Manager) and CFPP (Certified Food Protection Professional) credentials. The CDM and CFPP are nationally recognized as experts in managing dietary operations.

Special Requirements

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 beginning the program or prior to beginning their internship. For information on the criminal background check, please note the complete description 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.

Students must be in good physical and psychological health and able to lift 30 pounds. Completed physical examination and health forms with evidence of current immunizations (tetanus, rubella, rubeola and hepatitis B) and statement that student is free from tuberculosis in a transmissible state must be presented.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Graduates earn competitive salaries in hospitals, nursing facilities, residential care sites, schools, and commercial food service.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Dietary Manager, Certificate of Completion

Dietary Manager, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- CULN 1010 - Food Production and Service Fundamentals 3 credit hour(s)

  or

- CULN 1100 - Introduction to Culinary Skills 3 credit hour(s)

  and

- CULN 1110 - Culinary Skills 4 credit hour(s)

- CULN 1103 - Safety and Sanitation Principles 3 credit hour(s)
- NUTR 1010 - Personal Practical Nutrition 3 credit hour(s)
- NUTR 1015 - Introduction to Medical Nutrition Therapy 3 credit hour(s)
- NUTR 1090 - Dietary Manager Internship I 2 credit hour(s)

Term 2

- HT 2201 - Hospitality Operations Management 3 credit hour(s)
- NUTR 1091 - Dietary Manager Internship II 2 credit hour(s)
- Program Approved Elective 3-4 credit hour(s)

Certificate in Dietary Manager 22-27 credit hour(s)

Program Approved Electives

- HT 2215 - Purchasing and Cost Controls 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- NUTR 1020 - Introduction to Sports Nutrition 3 credit hour(s)
- SPAN 1101 - Beginning Spanish 4 credit hour(s) or higher

Early Childhood Multicultural Education

Program Description

This degree is designed for students who are working or would like to work in the field of early childhood, which includes PreK-3rd grade in the elementary schools. This Associate of Arts degree is fully transferable to any college or university in New Mexico with an early childhood associate or bachelor's degree.

Birth – 3rd Teacher: This concentration is designed for students who are or would like to work as early childhood teachers in the private sector, teacher's aides in an elementary school, or interested in becoming a licensed PreK- 3rd grade teacher in an elementary school (upon completion of a bachelor's degree in Early Childhood).

Early Childhood Program Administration: This concentration is designed for people who are or would like to work as administrators of early education programs. Students completing this degree can continue to a bachelor's degree in Early Childhood.

Family, Infant, & Toddler: This concentration is designed for people who are or would like to work in the early intervention or home visiting field and/or complete a bachelor's degree in Early Childhood.

Student 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 New Mexico Kids Network office by calling (505) 277-1118. To successfully complete this packet requires verification of completion of certificate coursework, professional resource file, family opinion questionnaire, observation and oral interview.

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.

Students completing the Family, Infant and Toddler degree concentration may apply for initial certification as a Developmental Specialist I Advanced at http://nmhealth.org/ddsd/nmfit/

Special Requirements

Students may be required to undergo a TB test and a criminal background check prior to begining 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

Gainful Employment information is available from Job Connection Services.

Students from all concentrations of studies 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.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Child Development, Certificate of Achievement
- Early Childhood Multicultural Education, Associate of Arts

Child Development, Certificate of Achievement

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Reading 2 Proficiency

Program Requirements

- ECME 1104 - Child Growth Development and Learning 3 credit hour(s)
- ECME 1108 - Health Safety and Nutrition 2 credit hour(s)
- ECME 2204 - Assessment of Children and Evaluation of Programs 3 credit hour(s)
- ECME 2206 - Family and Community Collaboration I 3 credit hour(s)

Child Development, Certificate of Achievement, 11 credit hour(s)

Early Childhood Multicultural Education, Associate of Arts

Recommended Sequence of Courses

Concentrations

- Birth – 3rd Grade Teacher
- Early Childhood Program Administration
- Family, Infant, and Toddler
-

Birth – 3rd Grade Teacher Concentration

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ECME 1102 - Professionalism 2 credit hour(s)

- ECME 1104 - Child Growth Development and Learning 3 credit hour(s)
- ECME 1108 - Health Safety and Nutrition 2 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- MATH 1110 - Mathematics for Elementary School Teachers I 3 credit hour(s)

  or
- MATH 1115 - Mathematics for Elementary School Teachers II 3 credit hour(s)

  or
- MATH 1315 - College Algebra 3 credit hour(s) or higher

- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 2

- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or
- COMM 2270 - Communication Studies for Teachers 3 credit hour(s) (Recommended)

- ECME 2201 - Introduction to Reading and Literacy Development 3 credit hour(s)
- ECME 2204 - Assessment of Children and Evaluation of Programs 3 credit hour(s)
- ECME 2206 - Family and Community Collaboration I 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)

Term 3

- ECME 1109 - Curriculum Development through Play: Birth - Age 3 3 credit hour(s) (FALL/SPRING)
- ECME 1190 - Curriculum Development Through Play Practicum 2 credit hour(s) (FALL/SPRING)

- EDUC 2265 - Computers in Schools 3 credit hour(s) (Recommended)

  or
- IT 1010 - Introduction to Computers 3 credit hour(s)

- Fine Arts Approved Elective 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 4

- ECME 2212 - Curriculum Development and Implementation:Age 3-Grade 3 3 credit hour(s) (FALL/SPRING)
- ECME 2214 - Guiding Young Children 3 credit hour(s)
- ECME 2290 - Curriculum Development and Implementation: Age 3-Grade 3 Practicum 2 credit hour(s) (FALL/SPRING)
- Humanities Requirement 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)

Associate of Arts in Early Childhood Multicultural Education, Birth – 3rd Grade Teacher Concentration 64-65 credit hour(s)

- A catalog change was made per catalog corrections team.

Early Childhood Program Administration Concentration

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ECME 1102 - Professionalism 2 credit hour(s)

- ECME 1104 - Child Growth Development and Learning 3 credit hour(s)
- ECME 1108 - Health Safety and Nutrition 2 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- MATH 1110 - Mathematics for Elementary School Teachers I 3 credit hour(s)

  or
- MATH 1115 - Mathematics for Elementary School Teachers II 3 credit hour(s)

  or
- MATH 1315 - College Algebra 3 credit hour(s) or higher

- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 2

- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or
- COMM 2270 - Communication Studies for Teachers 3 credit hour(s) (Recommended)

- ECME 2204 - Assessment of Children and Evaluation of Programs 3 credit hour(s)
- ECME 2206 - Family and Community Collaboration I 3 credit hour(s)
- ECME 2220 - Program Management 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)

Term 3

- ECME 2222 - Effective Program Development for Diverse Learners and their Families 3 credit hour(s)
- ECME 2490 - Effective Program Development for Diverse Learners and their Families Practicum 2 credit hour(s)

- EDUC 2265 - Computers in Schools 3 credit hour(s) (Recommended)

  or
- IT 1010 - Introduction to Computers 3 credit hour(s)

- Fine Arts Approved Elective 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 4

- ECME 2214 - Guiding Young Children 3 credit hour(s)
- ECME 2224 - Professional Relationships 3 credit hour(s)
- ECME 2590 - Professional Relationships Practicum 2 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)

Associate of Arts in Early Childhood Multicultural Education, Early Childhood Program Administration Concentration 64-65 credit hour(s)

- A catalog change was made per catalog corrections team.

Family, Infant, and Toddler Concentration

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ECME 1102 - Professionalism 2 credit hour(s)
- ECME 1104 - Child Growth Development and Learning 3 credit hour(s)

- ECME 1108 - Health Safety and Nutrition 2 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- MATH 1110 - Mathematics for Elementary School Teachers I 3 credit hour(s)

  or
- MATH 1115 - Mathematics for Elementary School Teachers II 3 credit hour(s)

  or
- MATH 1315 - College Algebra 3 credit hour(s) or higher

- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 2

- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or
- COMM 2270 - Communication Studies for Teachers 3 credit hour(s) (Recommended)

- ECME 2204 - Assessment of Children and Evaluation of Programs 3 credit hour(s)
- ECME 2206 - Family and Community Collaboration I 3 credit hour(s)
- ECME 2230 - Infant-Toddler Growth Development and Learning 3 credit hour(s)
- ECME 2690 - Infant-Toddler Growth, Development and Learning Practicum 2 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)

Term 3

- ECME 2232 - Family Infant Toddler Professionals Families and Communities 3 credit hour(s)
- ECME 2790 - Family Infant Toddler Professionals Practicum 2 credit hour(s)

- EDUC 2265 - Computers in Schools 3 credit hour(s) (Recommended)

  or
- IT 1010 - Introduction to Computers 3 credit hour(s)

- Fine Arts Approved Elective 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 4

- ECME 2214 - Guiding Young Children 3 credit hour(s)
- ECME 2234 - Caregiving for Infants and Toddlers 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)

Associate of Arts in Early Childhood Multicultural Education, Family, Infant, and Toddler Concentration 64-65 credit hour(s)

- A catalog change was made per catalog corrections team.

Program Approved Electives

Fine Arts Electives

Select From At Least Two Different Subject Areas.

- ARTH 1101 - Introduction to Art 3 credit hour(s)
- ARTH 2201 - History Of Art I 3 credit hour(s)
- ARTH 2202 - History Of Art II 3 credit hour(s)
- ARTH 2250 - Modern Art 3 credit hour(s)
- ARTH 2251 - Art of the American Southwest 3 credit hour(s)
- MUS 1139 - Early Music Appreciation 3 credit hour(s)
- MUS 1140 - Modern Music Appreciation 3 credit hour(s)
- THEA 1122 - Introduction to Theatre 3 credit hour(s)

Social/Behavioral Science Electives

Select From At Least Two Different Subject Areas.

- ANTH 1101 - Intro Anthropology 3 credit hour(s)
- ANTH 1130 - Cultures of the World 3 credit hour(s)
- ECON 2200 - Macroeconomics 3 credit hour(s)
- ECON 2201 - Microeconomics 3 credit hour(s)
- PSCI 1110 - The Political World 3 credit hour(s)
- PSCI 2200 - U.S. Politics 3 credit hour(s)
- PSCI 2220 - Comparative Government and Politics 3 credit hour(s)
- PSCI 2240 - International Politics 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Electrical Trades

Program Description

The Electrical Trades Certificate Program provides students the opportunity to gain the knowledge and technical skills necessary to enter the field of electrical trades. 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 electrical trades.

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 the School of Applied Technologies (AT) 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

Gainful Employment information is available from Job Connection Services.

The New Mexico Department of Workforce Solutions predicts a continued increase in the demand for electrical workers for years to come. 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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Electrical Trades, Certificate of Completion
- Photovoltaic Installation, Certificate of Completion
- Residential Wiring, Certificate of Completion

Electrical Trades, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 2 Proficiency
- Reading 1 Proficiency

Term 1

- ELTR 1005 - Electrical Theory I 4 credit hour(s)
- ELTR 1015 - Electrical Math I 4 credit hour(s)
- ELTR 1020 - Electrical DC/AC Lab 3 credit hour(s)
- ELTR 1030 - AC Circuity, Motors, Generators 3 credit hour(s)

Term 2

- ELTR 1215 - Blueprint Reading I 4 credit hour(s)
- ELTR 1210 - Electrical Theory II 4 credit hour(s)
- ELTR 1220 - Residential Wiring Lab 3 credit hour(s)
- ELTR 1230 - Residential Electrical Services 3 credit hour(s)

Term 3

- ELTR 2005 - Electrical Theory III 4 credit hour(s)
- ELTR 2015 - Electrical Motor Control Theory 4 credit hour(s)
- ELTR 2020 - Industrial Motor Control Lab 3 credit hour(s)
- ELTR 2030 - Industrial Power Distribution 3 credit hour(s)

Certificate of Completion in Electrical Trades 42 credit hour(s)

Photovoltaic Installation, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 2 Proficiency
- Reading 1 Proficiency

Term 1

- ELTR 1005 - Electrical Theory I 4 credit hour(s)
- ELTR 1015 - Electrical Math I 4 credit hour(s)
- ELTR 1020 - Electrical DC/AC Lab 3 credit hour(s)
- ELTR 1030 - AC Circuity, Motors, Generators 3 credit hour(s)

Term 2

- ELTR 1215 - Blueprint Reading I 4 credit hour(s)
- ELTR 1210 - Electrical Theory II 4 credit hour(s)
- ELTR 1220 - Residential Wiring Lab 3 credit hour(s)
- ELTR 1230 - Residential Electrical Services 3 credit hour(s)

Term 3

- ELTR 2610 - Photovoltaic Installation Safety 2 credit hour(s)
- ELTR 2620 - Photovoltaic Theory/Design and Installation 3 credit hour(s)
- ELTR 2630 - Advanced PV Theory /Design/ Installation/ Maintenance and Commissioning 4 credit hour(s)
- ELTR 2692 - PV Installation Lab 3 credit hour(s)

Certificate of Completion in Electrical Trades Photovoltaic Installation 40 credit hour(s)

Residential Wiring, Certificate of Completion

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 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 2 Proficiency
- Reading 1 Proficiency

Term 1

- ELTR 1005 - Electrical Theory I 4 credit hour(s)
- ELTR 1015 - Electrical Math I 4 credit hour(s)
- ELTR 1020 - Electrical DC/AC Lab 3 credit hour(s)
- ELTR 1030 - AC Circuity, Motors, Generators 3 credit hour(s)

Term 2

- ELTR 1215 - Blueprint Reading I 4 credit hour(s)
- ELTR 1210 - Electrical Theory II 4 credit hour(s)
- ELTR 1220 - Residential Wiring Lab 3 credit hour(s)
- ELTR 1230 - Residential Electrical Services 3 credit hour(s)

Certificate of Completion in Residential Wiring 28 credit hour(s)

Emergency Medical Services

Program Description

The EMS program offers courses for students interested in a career in prehospital emergency medical services. Entry-level students must complete EMT-Basic courses in order to gain EMS licensure in the state of New Mexico. EMS First Responder, EMT-Basic, and EMT-Intermediate help improve employment opportunities in the prehospital and emergency hospital setting.

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 prior to working with patients in a clinical setting.

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.

Proof of Personal Health Care Insurance: Required for clinical courses.

Grade Only Courses: due to the requirement of live invasive skills and/or patient contact in the prehospital and hospital environment, all EMS lab, clinical, and internship courses must be taken for grade only. Audit status is not permitted in EMS lab, clinical, or internship courses.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Emergency medical services personnel are employed with fire departments, ambulance services, aeromedical services (flight medicine), or work as part of the health care team in the emergency department of hospitals.

Completion of the Associate's Degree in Emergency Medical Services – Paramedic allows transition into bachelor's level EMS programs to include the University of New Mexico and Eastern New Mexico University – Roswell.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- EMS–Intermediate, Certificate of Completion
- EMS–Paramedic, Associate of Applied Science

First Responder

Program Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Courses

These courses are NOT a pre- or corequisite for any other level of EMS training at CNM.

- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- EMS 1001 - EMS First Responder Theory 2 credit hour(s)
- EMS 1091 - EMS First Responder Lab 1 credit hour(s)

Emergency Medical Technician-Basic (EMT-B)

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- High School Diploma or Equivalent
- English 2 Proficiency

- Math 2 Proficiency
- Reading 2 Proficiency

Courses

- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- EMS 1053 - EMT Basic Theory 6 credit hour(s)
- EMS 1093 - EMT Basic Lab 2 credit hour(s)
- EMS 1190 - EMT Basic Clinical 1 credit hour(s)

EMS–Intermediate, Certificate of Completion

Program Description

The EMT-Intermediate program offers 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 entrance into the paramedic program. These courses are recommended for students with field experience as an EMT. This is a recommended pre-requisite to the paramedic program.

Special Requirements

Department Approval Required

In the interest of promoting successful course completion and advancing the job skills of licensed EMT-Basics, department approval is placed on EMT-Intermediate theory and lab. This registration requirement remains in effect until the open registration date of each term. EARLY department approval and registration will be granted to currently licensed New Mexico EMT-Basics. Current licensure status will be verified using the NM EMS License Verification Report. On or after the open enrollment date of each term the department approval requirement will be removed, thus opening registration access to all qualified students on a first-come, first serve basis. This will make EMT-Intermediate accessible to continuing EMT-Basic students who are waiting to take their state licensure exam. Please know that obtaining early department approval in no way guarantees a seat in the course. There are only a limited number of available seats due to factors such as clinical availability and job placement. Please contact the School of Health, Wellness & Public Safety (HWPS) for department override requests. The following information will be needed: NM EMT Basic License number, expiration date and CNM Student ID number.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Department Approval Program
- English 2 Proficiency
- Math 2 Proficiency

  or
- MATH 1310 (Recommended)
- Reading 2 Proficiency

Required Courses

- EMS 1053 - EMT Basic Theory 6 credit hour(s)
- EMS 1093 - EMT Basic Lab 2 credit hour(s)
- EMS 1190 - EMT Basic Clinical 1 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (MATH 1315 Recommend if planning on transferring to a 4-year degree)

Term 1

- EMS 1412 - Advanced EMT (EMT-I) Theory 6 credit hour(s)
- EMS 1493 - Advanced EMT (EMT-I) Lab 2 credit hour(s)

Term 2

- EMS 1890 - Advanced EMT (EMT-I) Clinical 2 credit hour(s)

Emergency Medical Services – Intermediate, Certificate of Completion 26-27 credits hour(s)

EMS–Paramedic, Associate of Applied Science

Program Description

EMT-Paramedics provide the highest level of care in the prehospital setting and are currently in high demand. The EMS-Paramedic program's first term courses are offered summer and fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

This program allows students to take the National Registry paramedic certification exam.

The CNM Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- English 2 Proficiency

- Math 2 Proficiency

  or

- MATH 1310 (Recommended)

- Reading 2 Proficiency
- Required Courses
- BIO 1410 - Biology for Health Sciences 3 credit hour(s)

- EMS 1053 - EMT Basic Theory 6 credit hour(s)

  and

- EMS 1093 - EMT Basic Lab 2 credit hour(s)

  and

- EMS 1190 - EMT Basic Clinical 1 credit hour(s)

  or

- EMS 1412 - Advanced EMT (EMT-I) Theory 6 credit hour(s)

  and

- EMS 1493 - Advanced EMT (EMT-I) Lab 2 credit hour(s)

  and

- EMS 1890 - Advanced EMT (EMT-I) Clinical 2 credit hour(s)

- ENG 1101 - College Writing 3 credit hour(s)
- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (MATH 1315 Recommend if planning on transferring to a 4-year degree)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

Term 1 (Summer or Fall Only)

This program's first term courses are offered summer and fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- EMS 2103 - Human Systems Pathophysiology and Development 3 credit hour(s)

  or

- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s) (must be current within the past 5 years)

- EMS 2203 - Drug Calculations 1 credit hour(s)
- EMS 2207 - Legal Issues and Report Writing 2 credit hour(s)
- EMS 2213 - Endocrine and GI/GU Theory 1 credit hour(s)
- EMS 2217 - Pharmacology Theory 3 credit hour(s)
- EMS 2223 - Advanced Trauma Theory 3 credit hour(s)
- EMS 2291 - Intro Paramedic Lab 2 credit hour(s)

Term 2

- EMS 2303 - Cardiovascular Theory 3 credit hour(s)
- EMS 2307 - Respiratory Theory 2 credit hour(s)
- EMS 2313 - Neurological Theory 2 credit hour(s)
- EMS 2380 - Clinical Review I (CR/NC) 1 credit hour(s)
- EMS 2390 - Hospital Clinical I 2 credit hour(s)
- EMS 2393 - Paramedic Lab I 3 credit hour(s)
- EMS 2490 - Prehospital Field Clinical I 3 credit hour(s)

Term 3

- EMS 2503 - Pediatric and Gynecology Theory 3 credit hour(s)
- EMS 2507 - Environmental Theory 3 credit hour(s)
- EMS 2513 - Behavioral Emergencies and Communication 1 credit hour(s)
- EMS 2580 - Clinical Review II (CR/NC) 1 credit hour(s)
- EMS 2590 - Hospital Clinical II 1 credit hour(s)
- EMS 2593 - Paramedic Lab II 2 credit hour(s)

- EMS 2690 - Prehospital Field Clinical II 4 credit hour(s)
- EMS 2999 - Paramedic Capstone 1 credit hour(s)

Associate of Applied Science in Emergency Medical Services, Paramedic 72-74 credit hour(s)

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

Gainful Employment information is available from Job Connection Services.

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.

Special Requirements

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.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Engineering, Associate of Science

Engineering, Associate of Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- MATH 1410
- MATH 1415
- Reading 2 Proficiency

Term 1

- CHEM 1710 - General Chemistry I 3 credit hour(s)
- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- ENGR 1010 - Survey of Engineering Fields 1 credit hour(s)
- MATH 1710 - Calculus I 4 credit hour(s)

Term 2

- CSCI 1151 - Intro to Programming fo Non-Computer Science Majors 4 credit hour(s)

  or

- CSCI 1152 - Intro to Programming for Computer Science Majors 4 credit hour(s)

or

- CSCI 1153 - Programming in Matlab 4 credit hour(s)

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- MATH 1715 - Calculus II 4 credit hour(s)
- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)
- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)

Term 3

- Engineering Elective 3-4 credit hour(s)
- MATH 2710 - Calculus III 4 credit hour(s)
- PHYS 1810 - Physics for Scientists and Engineers II 4 credit hour(s)
- PHYS 1892 - Physics for Scientists and Engineers II Laboratory 1 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 4

- ECON 2200 - Macroeconomics 3 credit hour(s)
- ENG 2219 - Technical Writing 3 credit hour(s)
- Engineering Elective 3-4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- MATH 2910 - Applied Ordinary Differential Equations 3 credit hour(s)

Term 5

- Engineering Elective 3-4 credit hour(s)
- Engineering Elective 3-4 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)

Associate of Science in Engineering 70-74 credit hour(s)

**This course is used to transfer approved courses from other colleges and universities

- A catalog change was made per catalog corrections team.

Approved Engineering Electives

- CHEM 1810 - General Chemistry II 3 credit hour(s)
- CHEM 1892 - General Chemistry II Lab 1 credit hour(s)
- CHEM 2710 - Organic Chemistry I 3 credit hour(s)
- CHEM 2792 - Organic Chemistry I Laboratory 1 credit hour(s)
- CSCI 2201 - Mathematical Foundations of Computer Science 4 credit hour(s)
- CSCI 2251 - Intermediate Computer Programming 4 credit hour(s)
- ENGR 2088 - Engineering Specialty 1-16 credit hour(s) **
- ENGR 2710 - Thermodynamics 3 credit hour(s)
- ENGR 2810 - Engineering Statics 3 credit hour(s)
- ENGR 2815 - Engineering Dynamics 3 credit hour(s)
- ENGR 2910 - Circuit Analysis I 3 credit hour(s)
- ENGR 2915 - Circuit Analysis II 3 credit hour(s)
- MATH 2810 - Applied Linear Algebra 3 credit hour(s)
- PHYS 2710 - Physics for Scientists and Engineers III 4 credit hour(s)

English

Program Description

This two-year program is designed to meet the requirements for an Associate of Arts in English from CNM and prepare a student to obtain a Bachelor of Arts in English from a 4-year college or unversity.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Students planning to transfer to the University of New Mexico (UNM) should keep in mind that the UNM English program offers various concentrations within English.

This page provides information specific to the Liberal Arts, the Pre-Graduate, and the Pre-Professional concentrations in the UNM English Department.

Students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students should always

refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online.

Certificate and Degree Options

- English, Associate of Arts

English, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
-
- MATH 1210

  or
- MATH 1310
-
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)

- ENG 1150 - Study Of Literature 3 credit hour(s)

  or
- ENG 2262 - Survey of Earlier World Literature 3 credit hour(s)

  or
- ENG 2263 - Survey of Later World Literature 3 credit hour(s)

- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)
- Laboratory Science Requirement 4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 3

- ENG 2250 - Analysis of Literature 3 credit hour(s)

- ENG 2219 - Technical Writing 3 credit hour(s)

  or
- ENG 2220 - Expository Writing 3 credit hour(s)
-
- Laboratory Science Requirement 4 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Program Approved Requirement 3 credit hour(s)

Term 4

- Program Approved Requirement 3 credit hour(s)
- Program Approved Requirement 3 credit hour(s)
-
- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

-
- Elective 3 credit hour(s) (Social/Behavioral Science recommended)
- Elective 3 credit hour(s) (Math recommended)

Associate of Arts in English 62-64 credit hour(s)

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

Program Approved Requirements

English Emphases

These areas of emphasis were created to assist students wishing to transfer to the University of New Mexico as English Majors. Choose your area of emphasis based on the requirements of the UNM English Concentration you intend to pursue. The following CNM courses are recommended for the UNM Liberal Arts, Pre-Graduate, and Pre-Professional concentrations:

Pre-Professional Emphasis (9 credit hours)

Select three courses from the following list:

- ENG 2219 - Technical Writing 3 credit hour(s)

  or
- ENG 2220 - Expository Writing 3 credit hour(s)

- ENG 2284 - Survey of Earlier English Literature 3 credit hour(s)

  or
- ENG 2285 - Survey of Later English Literature 3 credit hour(s)

- ENG 2287 - Earlier American Literature 3 credit hour(s)

  or
- ENG 2288 - Later American Literature 3 credit hour(s)

Liberal Arts Emphasis (9 credit hours)

Select three courses form the following list:

- ENG 2262 - Survey of Earlier World Literature 3 credit hour(s)
- ENG 2263 - Survey of Later World Literature 3 credit hour(s)
- ENG 2284 - Survey of Earlier English Literature 3 credit hour(s)
- ENG 2285 - Survey of Later English Literature 3 credit hour(s)
- ENG 2287 - Earlier American Literature 3 credit hour(s)
- ENG 2288 - Later American Literature 3 credit hour(s)

Pre-Graduate Emphasis (9 credit hours)

Select three courses from the following list:

- ENG 2284 - Survey of Earlier English Literature 3 credit hour(s)

- ENG 2285 - Survey of Later English Literature 3 credit hour(s)

  or
- ENG 2287 - Earlier American Literature 3 credit hour(s)

  or
- ENG 2288 - Later American Literature 3 credit hour(s)
-
- Elective 3 credit hour(s)

English as a Second Language

Description

The Adult Basic Education (ABE) English as a Second Language (ESL) program offers courses in 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. Study groups and computer-aided instruction are also available. 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 participate in orientation and 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.

Certificate and Degree Options

- Adult Basic Education (ABE) ESL Program

Adult Basic Education (ABE) ESL Program

English as a Second Language (ESL) Course Options

Course placement and order based on CASAS test results.

Core Courses

- ESL 0250 - ESL Literacy 0 credit hour(s)
- ESL 0350 - Beginning ESL 0 credit hour(s)
- ESL 0450 - Low Intermediate ESL 0 credit hour(s)
- ESL 0550 - High Intermediate ESL 0 credit hour(s)
- ESL 0650 - Low Advanced ESL 0 credit hour(s)

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

English for Speakers of Other Languages

Description

The School of Adult and Basic Education (SAGE) provides college-credit ESOL (English for Speakers of Other Languages) classes designed for non-native speakers of English to prepare students for college-level reading and writing. In ESOL classes, instructors devote time to explicitly teaching grammar and vocabulary, teach listening and speaking skills, spend time on aspects of American culture that impact college students, assist students in comparing cultural differences in academic writing styles and expectations, consider cultural differences related to academic honesty, and teach various genres of writing through guided practice.

ESOL 0350 and 0450 are repeatable for-credit courses that do not serve as prerequisites to other courses in SAGE's DE program. ESOL 0551, 0751 and 0951 serve as prerequisites to other DE courses in SAGE, and they may be taken in place of ENG 0550, 0750 and 0950, respectively.

Special Requirements

Students registering for ESOL classes should have some understanding of academic English skills (reading, writing, speaking and listening).

Career and Educational Opportunities

English for Speakers of Other Languages (ESOL) courses prepare students for higher education, job advancement, or personal fulfillment.

Film Technician

Program Description

The Film Crew Technician Program Certificate is designed as a two-term 28 credit cohort program. The first term courses will provide students with an overview of the moving image production process while affording them an opportunity for hands-on experiences. The second term focuses on development of technical and production skills in one or more "below the line" film craft areas, including art, hair, make-up, wardrobe, craft services, grip, electric, sound, locations, and production office.

The Post Production Technician Program Certificate is designed as a two-term 31 credit cohort program. The first term courses will provide students with an overview of the moving image production process while affording them an opportunity for hands-on experiences. The second term focuses on development of basic technical and production skills which could lead to careers in many areas of developing visual media production. Skill areas include: post-production editing, sound capture and design, special effects, camera operation and storyboarding. The final course helps students develop a professional media portfolio in preparation for entering the workforce.
Career and Educational Opportunities

Special Requirements

The nature of the film work requires participants to stand for long periods of time as well as work in inclement weather conditions. Students will be required to commit to extended day, night and weekend hours while participating in class-related projects.

- Program fees apply.
- Students must be at least 18 years of age to enroll in FILM 1003.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Graduates from the Film Crew Technician Program will be prepared for entry-level crew positions in motion pictures, television and electronic media production. The Film Crew Technician Program is offered in collaboration with the New Mexico Film Office and IATSE Local 480.

Graduates from the Post Production Technician Program will be prepared to enter careers in many areas of developing visual media production across a wide variety of delivery platforms and formats.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Film Crew Technician, Certificate of Completion
- Post Production Technician, Certificate of Completion

Film Crew Technician, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency
- Math 3 Proficiency

Term 1

- FILM 1001 - Intro to Film and Media Workflow 3 credit hour(s)
- FILM 1003 - Basic Film/Media Production 3 credit hour(s)
- FILM 1015 - Film On-Set 4 credit hour(s)
- FILM 1110 - Film Location 4 credit hour(s)

Term 2

- FILM 1210 - Production Planning 3 credit hour(s)
- FILM 1220 - Pre-Production 4 credit hour(s)
- FILM 1230 - Production 4 credit hour(s)
- FILM 1240 - Post-Production 3 credit hour(s)

Certificate of Completion in Film Crew Technician 28 credit hour(s)

Post Production Technician, Certificate of Completion

Program Description

The Post Production Technician Program Certificate is designed as a two-term 31 credit cohort program. The first term courses will provide students with an overview of the moving image production process while affording them an opportunity for hands-on experiences. The second term focuses on development of basic technical and production skills which could lead to careers in many areas of developing visual media production. Skill areas include: post-production editing, sound capture and design, special effects, camera operation and storyboarding. The final course helps students develop a professional media portfolio in preparation for entering the workforce.

Special Requirements

Many class assignments will require sitting for long periods of time.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Graduates will be prepared to enter careers in many areas of developing visual media production across a wide variety of delivery platforms and formats.

Exit competencies for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- High School Diploma or Equivalent
- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- CIS 1310 - Introduction to Digital Media 3 credit hour(s)
- FILM 1001 - Intro to Film and Media Workflow 3 credit hour(s)
- FILM 1003 - Basic Film/Media Production 3 credit hour(s)
- FILM 1015 - Film On-Set 4 credit hour(s)
- FILM 1110 - Film Location 4 credit hour(s)

Term 2

- CIS 2336 - Post Production Special Effects 3 credit hour(s)
- FILM 1315 - Storyboarding 2 credit hour(s)
- FILM 1325 - Camera Operation 2 credit hour(s)
- FILM 1335 - Post Production Editing 3 credit hour(s)
- FILM 1345 - Sound Recording and Design 2 credit hour(s)
- FILM 1390 - Professional Portfolio 2 credit hour(s)

Certificate of Completion in Post Production Technician 31 credit hour(s)

Fine Arts

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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Exit competencies for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section.

Certificate and Degree Options

- Fine Arts, Associate of Arts

Fine Arts, Associate of Arts

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- MATH 1210

  or

- MATH 1310

- Reading 2 Proficiency

Concentrations

- Art History
- Art Studio

Recommended Sequence of Courses

Fine Arts (Art History Concentration)

Term 1

- ARTS 1106 - Drawing I 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- Mathematics Requirement 3-4 credit hour(s)

  or

- MATH 1340 - Geometry For Design 3 credit hour(s)

- Humanities Requirement 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 2

- ARTS 1121 - Two-Dimensional Design 3 credit hour(s)

  or

- ARTS 1125 - Art Practices I 3 credit hour(s) (Required for transfer to UNM)

- ARTH 2201 - History Of Art I 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s)
- Program Approved Requirement 3 credit hour(s)

Term 3

- ARTH 2202 - History Of Art II 3 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s)
- Laboratory Science Requirement 3-4 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Social/Behavioral Science 3 credit hour(s)

Term 4

- ARTH 2250 - Modern Art 3 credit hour(s)
- ARTH 2251 - Art of the American Southwest 3 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Laboratory Science Requirement 3-4 credit hour(s)

Associate of Arts in Fine Arts, Art History Concentration 63-68 credit hour(s)

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

Note:

A catalog change was made per catalog corrections team.

Program Approved Requirements

Choose from the following list of courses

- ARTS 1102 - Introduction to Studio Arts 3 credit hour(s)

- ARTS 1122 - Three-Dimensional Design 3 credit hour(s)

  or

- ARTS 1126 - Art Practices II 3 credit hour(s)

- ARTS 1168 - Ceramics I 3 credit hour(s)
- ARTS 2204 - Life Drawing I 3 credit hour(s)
- ARTS 2205 - Drawing II 3 credit hour(s)
- ARTS 2206 - Printmaking I 3 credit hour(s)
- ARTS 2207 - Painting I 3 credit hour(s)
- ARTS 2210 - Art Career Concerns 3 credit hour(s)
- ARTS 2211 - Portraiture 3 credit hour(s)
- ARTS 2212 - Aspects of Painting, Drawing & Multimedia 3 credit hour(s)
- ARTS 2214 - Life Drawing II 3 credit hour(s)
- ARTS 2216 - Printmaking II 3 credit hour(s)
- ARTS 2217 - Painting II 3 credit hour(s)

Fine Arts (Art Studio Concentration)

Term 1

- ARTH 2201 - History Of Art I 3 credit hour(s)
- ARTS 1106 - Drawing I 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- MATH 1340 - Geometry For Design 3 credit hour(s)

  or

- Mathematics Requirement 3-4 credit hour(s)

- Humanities Requirement 3 credit hour(s)

Term 2

- ARTS 1121 - Two-Dimensional Design 3 credit hour(s)

  or

- ARTS 1125 - Art Practices I 3 credit hour(s) (Required for transfer to UNM)

- ARTH 2202 - History Of Art II 3 credit hour(s)

- ARTS 2205 - Drawing II 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science 3-4 credit hour(s)
- Humanities Requirement 3 credit hour(s)

Term 3

- ARTS 1122 - Three-Dimensional Design 3 credit hour(s)

  or

- ARTS 1126 - Art Practices II 3 credit hour(s)

- ARTS 2206 - Printmaking I 3 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s)
- Social/Behavioral Science 3 credit hour(s)
- Social/Behavioral Science 3 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s)

Term 4

- ARTH 2250 - Modern Art 3 credit hour(s)
- ARTS 2207 - Painting I 3 credit hour(s)
- ARTS 2210 - Art Career Concerns 3 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Laboratory Science 3-4 credit hour(s)

Associate of Arts in Fine Arts, Art Studio Concentration 66-70 credit hour(s)

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

Note:

A catalog change was made per catalog corrections team.

Fire Science

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 our 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 curriculum includes Fire Behavior and Combustion, Building Construction for Fire Protection, Fire Protection Hydraulics and Water Supply, Fire Protection Systems, Introduction to Fire Science, Wildland Firefighting, Fire Inspections, Fire Administration, Occupational Safety, Tactics and Strategy and Hazardous Materials.

The program will provide graduates with a sense of community service and what it takes to be successful in the fire service. The wildland concentration provides students the opportunity to specialize in wildland firefighting. The structural concentration provides students the opportunity to specialize in structural firefighting.

Special Requirements

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The Associate's 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. Over the last twenty years, the complexity and intensity of wildfires has drastically increased. Wildfire agencies need ample resources (with the proper training and qualifications). Currently, wildfire agencies are suffering massive turnover in the form of retirements, transfer and resignations. 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 International Fire Service Accreditation Congress (IFSAC) Firefighter I Certificate that indicates the level of Technical and Manipulative training received.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Fire Science, Associate of Applied Science

Firefighter I

Program Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Courses

- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- FS 1504 - Wildland Firefighting 3 credit hour(s)
- FS 1817 - Wildland Emphasis 3 credit hour(s)
- FS 1820 - Hazardous Materials Awarness and Operations 3 credit hour(s)
- FS 2015 - Firefighter I 5 credit hour(s)

Fire Science, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- High School Diploma or Equivalent
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)
- OSH 2016 - Occupational Safety I 1 credit hour(s)

- FITT 1792 - Physical Fitness I 1 credit hour(s)

  or

- FITT 2093 - Extreme Conditioning 1 credit hour(s)

- FS 1010 - Introducton to Fire Science 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ENG 1119 - Technical Communications 3 credit hour(s)

  or

- ENG 2219 - Technical Writing 3 credit hour(s)

- FS 1504 - Wildland Firefighting 3 credit hour(s)
- FS 1512 - Building Construction 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (MATH 1315 Recommend if planning on transferring to a 4-year degree)

Term 3

- COMM 1130 - Public Speaking 3 credit hour(s) or higher
- Concentration Courses 6 credit hour(s)
- FS 2003 - Hazardous Materials I 1 credit hour(s)
- Program Approved Elective 3 credit hour(s)

Term 4

- FS 2422 - Fire Behavior and Combustion 3 credit hour(s)
- Concentration Courses 6-7 credit Hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Term 5

- Concentration Courses 7 credit Hour(s)
- FS 2999 - Fire Science Capstone Course 1 credit hour(s)
- Program Approved Elective 3 credit hour(s)

- SOC 2216 - Ethnic and Minority Groups 3 credit hour(s)

  or

- SOC 2211 - Social Problems 3 credit hour(s)

Associate of Applied Science in Fire Science 62-64 credit hour(s)

Program Approved Electives

- Any CJ Course
- Any EMS Course (if EMS Concentration, then must be EMS 1600 and higher, except EMS 1715 and EMS 2715)
- Any FS Course
- Biological/ Physical Science
- CSE 1120 - Career Exploration 1 credit hour(s)
- Foreign Language
- Humanities
- Social/Behavioral Science

Concentrations

Structural Firefighting Concentration

- CHEM 1410 - Introduction to Chemistry 3 credit hour(s)

  and

- CHEM 1492 - Introduction to Chemistry Laboratory 1 credit hour(s)

  or

- CHEM 1710 - General Chemistry I 3 credit hour(s)

  and

- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)

- FS 2001 - Fire Protection Systems 3 credit hour(s)
- FS 2008 - Fire Protection Hydraulics and Water Supply 3 credit hour(s)
- FS 2402 - Managing Community Fire Protection 3 credit hour(s)
- FS 2416 - Command Strategy and Tactics I 1 credit hour(s)
- FS 2417 - Command Strategy and Tactics II 1 credit hour(s)
- FS 2418 - Command Strategy and Tactics III 1 credit hour(s)
- FS 2814 - Facilities Inspection 3 credit hour(s)

Wildland Firefighting Concentration

- BIO 1010 - Biology for Non-Majors 3 credit hour(s)

  and

- BIO 1092 - Biology for Non-Majors Lab 1 credit hour(s)

  or

- BIO 1110 - Environmental Science 3 credit hour(s)

  and

- BIO 1192 - Environmental Science Laboratory 1 credit hour(s) (Recommended)

- GIS 1001 - Introduction To GIS 3 credit hour(s)
- FS 2815 - Wildland Patterns and Prevention 3 credit hour(s)
- FS 2820 - Wildland Leadership 4 credit hour(s)
- FS 2825 - Wildland Squad Boss Preparation 3 credit hour(s)
- FS 2830 - Wildland Urban Interface Operations 3 credit hour(s)

Emergency Medical Services Concentration

- EMS 1053 - EMT Basic Theory 6 credit hour(s)
- EMS 1093 - EMT Basic Lab 2 credit hour(s)
- EMS 1190 - EMT Basic Clinical 1 credit hour(s)
- EMS 1412 - Advanced EMT (EMT-I) Theory 6 credit hour(s)
- EMS 1493 - Advanced EMT (EMT-I) Lab 2 credit hour(s)
- EMS 1890 - Advanced EMT (EMT-I) Clinical 2 credit hour(s)
- HLTH 1001 - Clinical Preparation 1 credit hour(s)

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.

Information Sessions are scheduled during the term prior to enrollment in the Fitness Technician (FITT) Certificate Program. These sessions provide general information about the profession of personal fitness.

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information. This program can be completed in two consecutive terms if attending full-time. Students wishing to enroll part-time must contact the department for approval.

Special Requirements

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The US Department of Labor expects the employment of fitness workers to increase 29 percent over the 2008-2018 decade, which is much faster than the average for all occupations.*

*Source: United States Department of Labor, Bureau of Statistics, Occupational Outlook Handbook, 2010-2011 edition.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Fitness Technician, Certificate of Completion

Fitness Technician, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Required Program Courses

- BIO 1310 - Human Anatomy and Physiology for Non-Majors 3 credit hour(s)
- BIO 1392 - Human Anatomy and Physiology for Non-Majors Laboratory 1 credit hour(s)

Term 1 (Fall Only)

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- BA 1101 - Introduction to Business 3 credit hour(s)

  or

- BA 1105 - Introduction to Entrepreneurship 3 credit hour(s)

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or

- COMM 2232 - Business and Professional Communication Studies 3 credit hour(s)

- FITT 1010 - Foundations of Exercise Science 3 credit hour(s)
- FITT 1072 - Kinesiology 3 credit hour(s)
- Program Approved Elective 1 credit hour(s) (Fitness Elective 1000-level course or higher)

Term 2

- FITT 1098 - Fitness Technician Field Experience 3 credit hour(s)

  or

- FITT 1095 - Cooperative Education 3 credit hour(s)

- FITT 1572 - Fitness Assessment and Exercise Prescription 3 credit hour(s)
- FITT 1575 - Exercise Prescription for Special Populations 3 credit hour(s)
- FITT 2492 - Group Exercise Leadership Preparation 1 credit hour(s)
- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- NUTR 1020 - Introduction to Sports Nutrition 3 credit hour(s)

Certificate of Completion in Fitness Technician 31 credit hour(s)

Program Approved Electives

- CSE 1101 - College Success 3 credit hour(s)
- FITT 1092 - Cardio Kick Boxing 1 credit hour(s)
- FITT 1093 - Weight Training for Women 1 credit hour(s)
- FITT 1192 - Body Sculpting 1 credit hour(s)
- FITT 1193 - Beginning Step Aerobics 1 credit hour(s)
- FITT 1097 - Independent Study 1-6 credit hour(s)
- FITT 1292 - Boxing Conditioning 1 credit hour(s)
- FITT 1293 - Fall Prevention Training for Older Adults 1 credit hour(s)
- FITT 1393 - Flexibility Training 1 credit hour(s)
- FITT 1492 - Step/Circuit Combo 1 credit hour(s)
- FITT 1493 - Fit Ball Training 1 credit hour(s)
- FITT 1592 - Step/Kick Combo 1 credit hour(s)

- FITT 1593 - Hatha Yoga I 1 credit hour(s)
- FITT 1692 - Beginning Country Western Dance 1 credit hour(s)
- FITT 1693 - Core Fitness I 1 credit hour(s)
- FITT 1792 - Physical Fitness I 1 credit hour(s)
- FITT 1793 - Core Yoga 1 credit hour(s)
- FITT 1892 - Fitness for Older Adults 1 credit hour(s)
- FITT 1893 - Healing Hatha Yoga Stretch and Breath 1 credit hour(s)
- FITT 1992 - Circuit Training 1 credit hour(s)
- FITT 1993 - Ultimate Frisbee 1 credit hour(s)
- FITT 2092 - Physical Fitness II 1 credit hour(s)
- FITT 2093 - Extreme Conditioning 1 credit hour(s)
- FITT 2096-2996 - Special Topics 1-6 credit hour(s)
- FITT 2192 - Fitness for Older Adults II 1 credit hour(s)
- FITT 2292 - Fitness Yoga 1 credit hour(s)
- FITT 2392 - Pilates-Style Mat Training 1 credit hour(s)

Food Service Management

Program Description

The Food Service Management (FSMG) certificate program 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 HACCP procedures are stressed. 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 (EI). Upon successful completion, students will be awarded ServSafe® Food Protection Manager Certification from NRAEF and Course Completion Certification from EI. This is an additional certification 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Food Service Management, Certificate of Completion

Food Service Management, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- CULN 1100 - Introduction to Culinary Skills 3 credit hour(s)

  or

- HT 1101 - Introduction to Tourism 3 credit hour(s)

- CULN 1110 - Culinary Skills 4 credit hour(s)

  or

- CULN 1010 - Food Production and Service Fundamentals 3 credit hour(s)

- CULN 1103 - Safety and Sanitation Principles 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- HT 2201 - Hospitality Operations Management 3 credit hour(s)
- HT 1164 - Food and Beverage Service 3 credit hour(s)
- NUTR 1010 - Personal Practical Nutrition 3 credit hour(s)
- Program Approved Electives 3-6 credit hour(s)

Certificate of Completion, Food Service Management 24-28 credit hour(s)

Program Approved Electives

- ACCT Courses 3-6 credit hour(s)
- BA Courses 3-6 credit hour(s)
- CIS courses 3 credit hour(s)
- CSE 1101 - College Success 1-3 credit hour(s) or higher
- CULN Courses 3-5 credit hour(s) (except those required for the degree)
- FITT courses 1-3 credit hour(s)
- FREN 1101 - Beginning French I 3-4 credit hour(s) or higher
- HT Courses 3-4 credit hour(s)
- NUTR Courses 3 credit hour(s)
- SPAN 1101 - Beginning Spanish 3-4 credit hour(s) or higher

GED Preparation

Description

The Adult Basic Education (ABE) GED Program offers instruction to adults who are preparing for the GED test or for college classes. Students at the basic literacy level can also learn to read and write. In addition, Computer Literacy courses, study groups, and computer-aided instruction are available.

Special Requirements

Students registering for GED classes are required to participate in orientation and 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.

Certificate and Degree Options

- Adult Basic Education (ABE) GED Program

Adult Basic Education (ABE) GED Program

Core Courses

Leveled Courses

- GEDM 0450 - Math Fundamentals 0 credit hour(s)
- GEDM 0550 - Decimals, Fractions and Measurements 0 credit hour(s)
- GEDM 0650 - Proportions, Percentages and Data Analysis 0 credit hour(s)
- GEDR 0250 - Basic Language Skills 0 credit hour(s)

- GEDR 0450 - Basic Language Skills II 0 credit hour(s)
- GEDR 0650 - Basic Skills Reading 0 credit hour(s)
- GEDW 0550 - Beginning Writing 0 credit hour(s)
- GEDW 0650 - Spelling and Grammar 0 credit hour(s)

Integrated Courses

- GEDI 0500 - Basic Skills Integrated 0 credit hour(s)
- GEDI 0505 - Basic Skills Learning Center 0 credit hour(s)
- GEDI 0650 - Computer Literacy 0 credit hour(s)
- GEDI 0900 - GED Refresher 0 credit hour(s)

Geographic Information Technology

Program Description

Students will study Geographic Information Systems (GIS) and related geospatial technologies including satellite-based mapping systems, remote sensing, and land survey. Practical, lab-based applications are emphasized. Both the certificate and degree options are offered as stand-alone choices for the student. Students who complete the GIT degree may choose to enter the work force or continue their education at a 4-year institution. Students pursuing the certificate of completion may choose a GIS or Surveying Concentration. It is critical to meet with an advisor or program Chair to design your academic schedule as some courses may be offered only in certain terms.

GIT Degree

The GIT Degree program offers a rigorous curriculum in geospatial technology, encompassing the areas of GIS, survey, remote sensing, database and programming in addition to general education courses. Students completing the degree will be prepared to work in the geospatial industry or continue on to 4-year studies in geography at UNM or NMSU.

GIT Certificate of Completion: GIS Concentration

The GIS concentration emphasizes applications of GIS software and includes courses in database design as well as programming. Students pursuing this certificate concentration will learn the latest industry technology as applied to a range of topics including environmental, hydrological and business applications.

GIT Certificate of Completion: Surveying Concentration

The surveying concentration is appropriate for students who wish to adapt their geospatial skills to surveying applications. Students who complete this certificate concentration are eligible and encouraged to take the National Society of Professional Surveyors (NSPS) Level I Technician exam.

Certificate of Achievement in GIS

This certificate is intended for students who already have a degree or work experience and wish to add a GIS-specific credential to their resume. It focuses on the core GIS classes offered in the degree.

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

Gainful Employment information is available from Job Connection Services.

Students completing the GIT A.A.S. degree or certificate of completion may seek employment as GIS technicians, analysts, cartographic technicians and other positions. Students completing the survey concentration may take the National Society of Professional Surveyors' Level I Technician Exam. The certificate of achievement is best suited for students with an existing degree and/or related work experience.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Geographic Information Technology, Certificate of Completion
- Geographic Information Technology, Associate of Applied Science

Geographic Information Technology, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Concentrations

- Geographical Information Systems
- Surveying

Geographical Information Systems Concentration

Term 1

- IT 1010 - Introduction to Computers 3 credit hour(s)
- GIS 1001 - Introduction To GIS 3 credit hour(s)
- GIS 1006 - Land Information Systems 1 credit hour(s)
- CIS 1207 - Programming Logic and Design 3 credit hour(s)
- MATH 1310 - Intermediate Algebra 4 credit hour(s)
- CAD 1001 - Basics Of CAD 1 credit hour(s)

Term 2

- GIS 1010 - Remote Sensing 3 credit hour(s)
- GIS 2001 - Intermediate GIS 3 credit hour(s)
- CM 2205 - Construction Surveying 3 credit hour(s)
- SUR 1002 - Math for Surveyors 1 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s)

Term 3

- CIS 1513 - Database Design and Introduction to SQL 3 credit hour(s)
- GIS 1005 - CAD for GIS 3 credit hour(s)
- GIS 2092 - GPS Field Mapping 1 credit hour(s)
- GIS 2020 - Trends in Geospatial Technology 3 credit hour(s)

Certificate of Completion in Geographic Information Technology, GIS Concentration 38 credit hour(s)

Surveying Concentration

Term 1

- GIS 1001 - Introduction To GIS 3 credit hour(s)
- GIS 1006 - Land Information Systems 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1310 - Intermediate Algebra 4 credit hour(s)
- SUR 1002 - Math for Surveyors 1 credit hour(s)

Term 2

- CAD 1001 - Basics Of CAD 1 credit hour(s)
- GIS 1010 - Remote Sensing 3 credit hour(s)
- GIS 2001 - Intermediate GIS 3 credit hour(s)
- CM 2205 - Construction Surveying 3 credit hour(s)
- SUR 1001 - Introduction to Surveying Engineering 1 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s)

Term 3

- GIS 1005 - CAD for GIS 3 credit hour(s)
- SUR 1017 - Traffic Control and NSPS Survey Technician Certification Prep 2 credit hour(s)
- SUR 1015 - Public Lands Survey System Boundaries 3 credit hour(s)
- MATH 1410 - Trigonometry 3 credit hour(s)

Certificate of Completion in Geographic Information Technology, Surveying Concentration 37 credit hour(s)

Geographic Information Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency
- Math 3 Proficiency

Term 1

- IT 1010 - Introduction to Computers 3 credit hour(s)
- GIS 1001 - Introduction To GIS 3 credit hour(s)
- CIS 1207 - Programming Logic and Design 3 credit hour(s)
- GIS 1006 - Land Information Systems 1 credit hour(s)
- MATH 1310 - Intermediate Algebra 4 credit hour(s)

Term 2

- CAD 1001 - Basics Of CAD 1 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- GIS 1010 - Remote Sensing 3 credit hour(s)
- GIS 2001 - Intermediate GIS 3 credit hour(s)

Term 3

- GIS 2092 - GPS Field Mapping 1 credit hour(s)
- GIS 1005 - CAD for GIS 3 credit hour(s)
- GIS 2020 - Trends in Geospatial Technology 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- MATH 1410 - Trigonometry 3 credit hour(s)

Term 4

- CIS 1513 - Database Design and Introduction to SQL 3 credit hour(s)
- GIS 2007 - GIS Applications 3 credit hour(s)

- GEOG 1101 - Physical Geography 3 credit hour(s)

  or

- GEOG 1102 - Human Geography 3 credit hour(s)

- CM 2205 - Construction Surveying 3 credit hour(s)
- SUR 1002 - Math for Surveyors 1 credit hour(s)

Term 5

- GEOG 2275 - Cartography 3 credit hour(s)
- GIS 2030 - GIS Project Design 3 credit hour(s)
- ARDR 2999 - ARDR Seminar II 1 credit hour(s)
- CIS 2520 - Introduction to SQL (Structured Query Language) 3 credit hour(s)
- CIS 1250 - Python Programming I 3 credit hour(s)

Associate of Applied Science in Geographic Information Technology 66 credit hour(s)

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-10-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.

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

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Health Information Technology, Associate of Applied Science

Health Information Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- High School Diploma or Equivalent
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency
-
- BIO 1410

  and

- CHEM 1410

  or

- CHEM 1710

Term 1

- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s) (Contact the School of Health, Wellness & Public Safety (HWPS) for BIO 1492 prerequisite override)
- ENG 1101 - College Writing 3 credit hour(s)
- HIT 1020 - Medical Terminology and Anatomy 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1175 - Computers in the Medical Office 2 credit hour(s)

Term 2

- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)
- HIT 1015 - Introduction to Coding 3 credit hour(s)
- HIT 1030 - Health Data Content and Structure 4 credit hour(s)
- HIT 1055 - PathoPharm 4 credit hour(s)

Term 3

- HIT 1060 - Health Information Management Systems 3 credit hour(s)
- HIT 1070 - Legal/Ethical Aspects of Health Information 3 credit hour(s)
- HIT 1090 - Health Information Practicum I 1 credit hour(s)
- HIT 2010 - Classification of Diseases I (ICD-CM) 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (MATH 1315 Recommend if planning on transferring to a 4-year degree)

Term 4

- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- ENG 1119 - Technical Communications 3 credit hour(s)
- HIT 2020 - Classification of Diseases II 3 credit hour(s)
- HIT 2040 - Health Information Data Analysis 3 credit hour(s)
- HIT 2050 - Health Information Supervision 3 credit hour(s)

Term 5

- HIT 2030 - CPT Coding 3 credit hour(s)
- HIT 2060 - Reimbursement Methodolgies 2 credit hour(s)
- HIT 2290 - Health Information Practicum II 2 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- Program Approved Elective 3 credit hour(s)

Associate of Applied Science in Health Information Technology 67-70 credit hour(s)

Program Approved Electives

- Any BA courses (except BA 1131)
- Any CIS courses
- CSE 1120 - Career Exploration 1 credit hour(s) or higher
- HIT 2070 - Coding Applications 2 credit hour(s)

- HIT 1096-1996 - Special Topics 1-3 credit hour(s)

  or

- HIT 2096-2996 - Special Topics 1-6 credit hour(s) or higher

- OTEC 2270 - Medical Transcription 3 credit hour(s)

Heating, Ventilating, Air Conditioning and Refrigeration (HVAC)

Program Description

The Heating, Ventilating, Air Conditioning and Refrigeration (HVAC) Technology program provides students the opportunity to gain knowledge and technical skills for entry into the Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) field in the areas of service, maintenance, installation, energy efficiency and green building standards. The program prepares the students in proper safety practices of mechanical equipment, proper refrigeration and hydronic piping practices, electrical circuitry and troubleshooting, service and maintenance of various types of heating, ventilation, air conditioning, heat pump, commercial and industrial refrigeration and HVAC/R

accessories. The program offers students an in-depth background in HVAC/R fundamentals through hands-on labs. Training is provided in service and maintenance on heating (natural gas and electric), air conditioning and heat pumps (packaged and split systems), steam and hot water boilers and boiler controls, chillers and chiller controls, green building performance and building automation controls. Students will gain an understanding of wiring diagrams to be able to troubleshoot equipment problems and create a sequence of operation from the wiring diagrams. Create system designs which will include calculating building loads; duct design, performance analysis, and code enforcement.

With the Residential HVAC Certificate of Completion (Term 1 & 2, 32 credit hours) students will have the basic knowledge to enter the Residential HVAC work force. This certificate covers the areas of proper safety practices of mechanical equipment, proper refrigeration practices, electrical circuitry, troubleshooting, service, maintenance and installation of various types of heating, ventilation, air conditioning, heat pump in the residential HVAC industry.

With the Commercial, Industrial HVAC/R & Green Building Performance Certificate of Completion (Terms 1, 2, 3 & 4, 58 credit hours) students will have (in addition to the Residential HVAC, Certificate of Completion) an in-depth background in commercial and industrial refrigeration, steam and hot water boilers and boiler controls, chillers and chiller controls, green building performance and building automation controls. Students will create system designs which will include calculating building loads; duct design, performance analysis, and code enforcement.

Special Requirements

Students are required to purchase textbooks, and pay certification exam fees.

Graduates will be required to earn their EPA Universal 608 Refrigeration Handling Certification.

EPA Exam fee is approximately $50.

Students must complete the National Industry Competency Exams (ICE).

Residential AC and Heating exam for the RESIDENTIAL HVAC Certificate.

Commercial Refrigeration and the Light Commercial AC and Heating exams for the COMMERCIAL, INDUSTRIAL HVAC & GREEN BUILDING PERFORMANCE Certificate.

ICE Exam fees are approximately $50 each.

Fees: Course fees are published in the Schedule of Classes. HVAC Tools and personal protective equipment (to be used in labs) will be purchased for the student with this fee.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Graduates are employed by local service and installation contractors as well as local manufacturers, hospitals and facilities. As a result of completing the two (2) certificates, students have acquired the training for successful acceptance in the HVAC/R industry. With additional on the job training, students can apply for the New Mexico Journeyman's exams. 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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Commercial, Industrial HVAC & Building Performance, Certificate of Completion
- Residential HVAC, Certificate of Completion
- Heating, Ventilating, Air Conditioning and Refrigeration Technology, Associate of Applied Science

Commercial, Industrial HVAC & Building Performance, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- HVAC 1105 - Refrigerant Fundamentals 3 credit hour(s)
- HVAC 1110 - Basic Electricity 3 credit hour(s)
- HVAC 1115 - Refrigerant Management 3 credit hour(s)
- HVAC 1120 - Motors & Controls 3 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s)
- HVAC 1130 - Code and Safety I 1 credit hour(s)

Term 2

- HVAC 1205 - Air Conditioning 2 credit hour(s)
- HVAC 1210 - Air Conditioning Controls 2 credit hour(s)
- HVAC 1215 - System Design 3 credit hour(s)
- HVAC 1220 - Installation and Retrofit of Heat/Cooling Systems 2 credit hour(s)
- HVAC 1225 - Heating Systems 2 credit hour(s)
- HVAC 1230 - Heating Control Systems 2 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 3

- HVAC 1305 - Advanced Hydronics 2 credit hour(s)
- HVAC 1310 - Controls I 2 credit hour(s)
- HVAC 1315 - Hot Water & Steam Generation Systems 2 credit hour(s)
- HVAC 1320 - Controls II 2 credit hour(s)
- HVAC 1325 - Chilled Water Systems 2 credit hour(s)
- HVAC 1330 - Controls III 2 credit hour(s)
- HVAC 1335 - Code and Safety Requirements II 1 credit hour(s)

Term 4

- HVAC 1405 - Refrigeration Application 2 credit hour(s)
- HVAC 1410 - Commercial Refrigeration 2 credit hour(s)
- HVAC 1415 - Industrial Refrigeration 2 credit hour(s)
- HVAC 1420 - HVAC/R Energy Efficiency & Green Building Standards I 3 credit hour(s)
- HVAC 1425 - HVAC/R Energy Efficiency & Green Building Standards II 3 credit hour(s)
- HVAC 1430 - HVAC/R Energy Efficiency & Green Building Code Compliance 1 credit hour(s)

Certificate of Completion in Commercial, Industrial HVAC & Building Performance 58 credit hour(s)

Residential HVAC, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- HVAC 1105 - Refrigerant Fundamentals 3 credit hour(s)
- HVAC 1110 - Basic Electricity 3 credit hour(s)
- HVAC 1115 - Refrigerant Management 3 credit hour(s)
- HVAC 1120 - Motors & Controls 3 credit hour(s)
- HVAC 1130 - Code and Safety I 1 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s) or higher (excluding COMM 2270 and COMM 2282)

Term 2

- HVAC 1205 - Air Conditioning 2 credit hour(s)
- HVAC 1210 - Air Conditioning Controls 2 credit hour(s)
- HVAC 1215 - System Design 3 credit hour(s)
- HVAC 1220 - Installation and Retrofit of Heat/Cooling Systems 2 credit hour(s)
- HVAC 1225 - Heating Systems 2 credit hour(s)
- HVAC 1230 - Heating Control Systems 2 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Certificate of Completion in Residential HVAC 32 credit hour(s)

Heating, Ventilating, Air Conditioning and Refrigeration Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)
- HVAC 1105 - Refrigerant Fundamentals 3 credit hour(s)
- HVAC 1110 - Basic Electricity 3 credit hour(s)
- HVAC 1115 - Refrigerant Management 3 credit hour(s)
- HVAC 1120 - Motors & Controls 3 credit hour(s)
- HVAC 1130 - Code and Safety I 1 credit hour(s)

Term 2

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- HVAC 1205 - Air Conditioning 2 credit hour(s)
- HVAC 1210 - Air Conditioning Controls 2 credit hour(s)
- HVAC 1215 - System Design 3 credit hour(s)
- HVAC 1220 - Installation and Retrofit of Heat/Cooling Systems 2 credit hour(s)
- HVAC 1225 - Heating Systems 2 credit hour(s)
- HVAC 1230 - Heating Control Systems 2 credit hour(s)

Term 3

- HVAC 1305 - Advanced Hydronics 2 credit hour(s)
- HVAC 1310 - Controls I 2 credit hour(s)
- HVAC 1315 - Hot Water & Steam Generation Systems 2 credit hour(s)
- HVAC 1320 - Controls II 2 credit hour(s)
- HVAC 1325 - Chilled Water Systems 2 credit hour(s)
- HVAC 1330 - Controls III 2 credit hour(s)
- HVAC 1335 - Code and Safety Requirements II 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 4

- HVAC 1405 - Refrigeration Application 2 credit hour(s)
- HVAC 1410 - Commercial Refrigeration 2 credit hour(s)
- HVAC 1415 - Industrial Refrigeration 2 credit hour(s)
- HVAC 1420 - HVAC/R Energy Efficiency & Green Building Standards I 3 credit hour(s)
- HVAC 1425 - HVAC/R Energy Efficiency & Green Building Standards II 3 credit hour(s)
- HVAC 1430 - HVAC/R Energy Efficiency & Green Building Code Compliance 1 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Term 5

- Humanities Requirement 3 credit hour(s)

  or

- Social/Behavioral Science Requirement 3 credit hour(s)

- HVAC 2095 - Heating, Ventilating, Air Conditioning and Refrigeration COOP 3 credit hour(s)
- HVAC 2999 - HVAC CAPSTONE COURSE 1 credit hour(s)

Associate of Applied Science in Heating, Ventilating, Air Conditioning and Refrigeration Technology 71-72 credit hour(s)

History

Program Description

History is the study of change over time, encompassing a wide range of recorded human experiences. While every field of study has a history, the history discipline falls mainly within the humanities. A bachelor’s degree in history

prepares students for careers in law, public service, foreign affairs, teaching, and similar fields that value critical thinking, research, and writing skills coupled with knowledge of history.

The two-year program listed below is designed to meet the requirements for an Associate of Arts in History from CNM and prepare a student to obtain a Bachelor of Arts in History at the University of New Mexico. Students planning to transfer to UNM should keep in mind that the UNM History Program offers four, regional concentrations of study: United States, Latin America, Europe, or Asia. Regardless of concentration, History majors at UNM must all complete the Western Civilization courses, which at CNM are numbered HIST 1101 and HIST 1102.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Students interested in transfer to UNM should consult the UNM History department advisor at (505) 277-2501. Students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Certificate and Degree Options

- History, Associate of Arts

History, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency

- MATH 1210

  or

- MATH 1310

- Reading 2 Proficiency

Term 1

- HIST 1101 - Western Civilization I 3 credit hour(s) **
- ENG 1101 - College Writing 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- HIST 1102 - Western Civilization II 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)
- Elective 3 credit hour(s) (Social/Behavioral Science Recommended)

Term 3

- HIST 1161 - History of the United States I 3 credit hour(s) *

  or

- HIST 1181 - Early Latin American History 3 credit hour(s) **

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Laboratory Science Requirement 4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)
- Elective 3 credit hour(s) (Fine Arts Recommended)

Term 4

- HIST 1162 - History of the United States II 3 credit hour(s)

  or

- HIST 1182 - Modern Latin American History 3 credit hour(s)
-
- Social/Behavioral Science Requirement 3 credit hour(s)
- Elective 3 credit hour(s) (Program Approved Elective Recommended)
- Elective 3 credit hour(s) (Biological/Physical Science Recommended)
- Elective 3 credit hour(s) (Mathematics Recommended)
-

Associate of Arts in History 62-64 credit hour(s)

Note

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

* HIST 1101 and HIST 1102 can be taken in any order (do not need to be taken sequentially); HIST 1161 and HIST 1162 can be taken in any order (do not need to be taken sequentially).

** CNM students who plan to transfer to UNM and specialize in the United States should take HIST 1161 and HIST 1162, while those planning to specialize in Latin America should take HIST 1181 and HIST 1182.

Program Approved Electives

These courses transfer to UNM as History 220 "Studies in History." While they do not transfer as required classes or history electives, they do count as general humanities electives and can benefit students who plan to take upper-division classes related to those topics of study.

Choose from the following list of courses:

- HIST 2230 - Twenieth Century Russia 3 credit hour(s)
- HIST 2240 - Vietnam: War Politics and Culture 3 credit hour(s)
- HIST 2260 - History of New Mexico 3 credit hour(s)
- HIST 2270 - The American West 3 credit hour(s)

Hospitality and Tourism

Program Description

The Hospitality and Tourism Associate of Arts degree is designed to substantially fulfill the freshman and sophomore course requirements for admission to bachelor's degree programs in Hospitality Management at New Mexico State and other colleges and universities. The degree's general education curriculum is accepted for transfer toward the general education core. Click here for articulation agreements.

The Hospitality and Tourism Certificate of Completion is a two-term 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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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.

Students wanting to continue their education beyond the certificate should meet with the Business & Information Technology program about the Hospitality and Tourism Associate of Arts degree and other transfer programs.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Hospitality and Tourism, Certificate of Completion
- Hospitality and Tourism, Associate of Arts

Hospitality and Tourism, Certificate of Completion

Program Description

The Hospitality and Tourism Certificate of Completion is a two-term 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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 Business & Information Technology academic advisor or program chair for more information about the Hospitality and Tourism Associate of Arts degree and other transfer programs.

Students wanting to continue their education beyond the certificate should meet with the Business & Information Technology program for more information about Hospitality and Tourism Associate of Arts degree and other 2+2 transfer programs.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s) (Hospitality and Tourism degree students must choose ENG 1101)

  or

- BA 1121 - Business English 3 credit hour(s)

- HT 1101 - Introduction to Tourism 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- Program Approved Electives 3-6 credit hour(s)

Term 2

- HT 2141 - Marketing of Hospitality Services 3 credit hour(s)
- HT 2201 - Hospitality Operations Management 3 credit hour(s)
- HT 2232 - Event Planning 3 credit hour(s)
- Program Approved Electives 3-6 credit hour(s)

Certificate of Completion in Hospitality and Tourism 24-30 credit hour(s)

Program Approved Electives

- ACCT Courses 3-4 credit hour(s)
- BA Courses 3-6 credit hour(s) (except those required for certificate)
- CIS Courses 3 credit hour(s)
- CSE 1101 - College Success 1-3 credit hour(s) or higher
- CULN Courses 3-5 credit hour(s)

- FITT Courses 1-3 credit hour(s)
- FREN 1101 - Beginning French I 3-4 credit hour(s) or higher
- HT Courses 3-4 credit hour(s) (except those required for certificate)
- SPAN 1101 - Beginning Spanish 3-4 credit hour(s) or higher
-

Hospitality and Tourism, Associate of Arts

Program Description

This 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 and other colleges and universities. The degree's general education curriculum is accepted for transfer toward the general education core. Go here for articulation agreements.

Students are encouraged to communicate with the School of Business & Information Technology associate dean or program chairs at (505) 224-3811, 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.

The Hospitality & 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 will 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

Special Requirements

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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, guest services to management and leadership positions. Many hospitality careers have competitive benefits and wages with the opportunity for rapid advancement.

Note: NMSU: Students should contact NMSU's HRTM department at (575) 646-5995 one or 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.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Reading 2 Proficiency
-
- MATH 1210

  or

- MATH 1310

Term 1

- HT 1101 - Introduction to Tourism 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- MATH 1315 - College Algebra 3 credit hour(s)

  or

- MATH 1320 - A Survey of Mathematics 3 credit hour(s)

  or

- MATH 1330 - Introduction to Probability and Statistics 3 credit hour(s)

or

- MATH 1710 - Calculus I 4 credit hour(s)

- Humanities/Fine Arts Approved Elective 3 credit hour(s)

Term 2

- ENG 1119 - Technical Communications 3 credit hour(s)

or

- ENG 2219 - Technical Writing 3 credit hour(s)

- HT 2201 - Hospitality Operations Management 3 credit hour(s)
- CULN 1103 - Safety and Sanitation Principles 3 credit hour(s)

- COMM 1130 - Public Speaking 3 credit hour(s)

or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- ECON 1101 - Introduction to Economics 3 credit hour(s)

Term 3

- CULN 1010 - Food Production and Service Fundamentals 3 credit hour(s)

- SPAN 1101 - Beginning Spanish 4 credit hour(s) or higher

or

- FREN 1101 - Beginning French I 4 credit hour(s) or higher

- ACCT 1111 - Accounting IA 3 credit hour(s)
- Social/Behavioral Science Approved Elective 3 credit hour(s)
- Biological/Physical Science Approved Elective with lab 4 credit hour(s)

Term 4

- ACCT 1112 - Accounting IB 3 credit hour(s)
- Biological/Physical Science Approved Elective with lab 4 credit hour(s)
- HT 2235 - Leadership and Management in the Hospitality Industry 3 credit hour(s)
- Humanities/Fine Arts Approved Elective 3 credit hour(s)

- Humanities/Fine Arts Approved Elective 3 credit hour(s)

or

- Social Behavioral Science Approved Elective 3 credit hour(s)

Associate of Arts in Hospitality and Tourism 63-65 credit hour(s)

Note:

A catalog change was made per catalog corrections team.

Program Approved Electives

6-9 credit hour(s) required in each Social/Behavioral Science and Humanities/Fine Arts for a total of 15 credit hour(s).

Biological/Physical Science

- ASTR 1110 - Introduction to Astronomy II 3 credit hour(s)
- ASTR 1192 - Astronomy Lab 1 credit hour(s)
- BIO 1010 - Biology for Non-Majors 3 credit hour(s)
- BIO 1092 - Biology for Non-Majors Lab 1 credit hour(s)
- BIO 1110 - Environmental Science 3 credit hour(s)
- BIO 1192 - Environmental Science Laboratory 1 credit hour(s)
- CHEM 1410 - Introduction to Chemistry 3 credit hour(s)
- CHEM 1492 - Introduction to Chemistry Laboratory 1 credit hour(s)
- CHEM 1710 - General Chemistry I 3 credit hour(s)

- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)
- CHEM 1810 - General Chemistry II 3 credit hour(s)
- CHEM 1892 - General Chemistry II Lab 1 credit hour(s)
- PHYS 1510 - Physics I 4 credit hour(s)
- PHYS 1592 - Physics I Laboratory 1 credit hour(s)
- PHYS 1610 - Physics II 4 credit hour(s)
- PHYS 1692 - Physics II Laboratory 1 credit hour(s)
- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)
- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)
- PHYS 1810 - Physics for Scientists and Engineers II 4 credit hour(s)
- PHYS 1892 - Physics for Scientists and Engineers II Laboratory 1 credit hour(s)

Social/Behavioral Science

- ANTH 1101 - Intro Anthropology 3 credit hour(s)
- ANTH 1120 - Archaeology: Discovering Our Past 3 credit hour(s)
- ANTH 1130 - Cultures of the World 3 credit hour(s)
- ECON 2200 - Macroeconomics 3 credit hour(s)
- ECON 2201 - Microeconomics 3 credit hour(s)
- GEOG 1102 - Human Geography 3 credit hour(s)
- GEOG 2201 - World Regional Geography 3 credit hour(s)
- PSCI 1110 - The Political World 3 credit hour(s)
- PSCI 2200 - U.S. Politics 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Humanities/Fine Arts

- ARTH 1101 - Introduction to Art 3 credit hour(s)
- ARTH 2201 - History Of Art I 3 credit hour(s)
- ARTH 2202 - History Of Art II 3 credit hour(s)
- ENG 2221 - Creative Writing: Fiction 3 credit hour(s)
- HIST 1101 - Western Civilization I 3 credit hour(s)
- HIST 1102 - Western Civilization II 3 credit hour(s)
- HIST 1161 - History of the United States I 3 credit hour(s)
- HIST 1162 - History of the United States II 3 credit hour(s)
- MUS 1139 - Early Music Appreciation 3 credit hour(s)
- PHIL 1110 - Introduction to Philosophical Thought 3 credit hour(s)
- PHIL 1102 - Ethics in Society 3 credit hour(s)
- RLGN 1107 - Living World Religions 3 credit hour(s)
- THEA 1122 - Introduction to Theatre 3 credit hour(s)

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.

Special Requirements

The program includes classroom, studio, laboratory instruction and distance learning.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section.

Certificate and Degree Options

- Integrated Studies, Associate of Applied Science

Integrated Studies, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- IT 1010 - Introduction to Computers 3 credit hour(s)

- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096) 3 or 4 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- Choice Requirement 3-4 credit hour(s)

Term 2

- *Choose one Course from Humanities, Biological/Physical Science, Fine Arts or Social/Behavioral Science, Communication, English or Journalism 3-4 credit hour(s)
- **Unspecified Electives 6 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

Term 3

- **Unspecified Electives 12 credit hour(s)

Term 4

- **Unspecified Electives 12 credit hour(s)

Term 5

- **Unspecified Electives 12 credit hour(s)

Note

**Unspecified Electives: Any Course Numbered 1000 or Above

Associate of Applied Science in Integrated Studies 60-62

Judicial Studies

The CNM Governing Board voted to discontinue the issuance of the Judicial Studies Certificate after the fall 2012 semester. All declared students have been notified of this, and have been told that JUD classes will be taught through fall 2012. JUD 2110 Principles of Court Management, and 2095/2095, Cooperative Education and Internship will be offered in fall 2012 and the program will be discontinued after that.

Landscaping

Program Description

The Landscaping Program provides students with skills for employment as construction or maintenance crew leaders in the original "GREEN Industry", an industry that has been concerned with environmental issues at every level. This program lays the foundation through classes in plant and soil science, crew leadership and irrigation, and provides the student a solid understanding of the plant–soil–water relationship. The student then advances to second term courses focusing on either Landscape Construction or Maintenance.

Special Requirements

Students will be required to purchase text books, hand tools, personal protective equipment, and any related certification exams. Students should also be able to lift and carry 50 pounds and enjoy working outdoors. Graduates entering the industry are generally expected to possess a current driver's license with a clean driving record (no DWI's/DUI's), a good work ethic and the ability to be a team player. Conversation Spanish skills are beneficial.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Graduates from the program can expect a variety of job opportunities from small self-employed shops to large organizations in the private and public sectors. This industry has a place for every graduate with a passion. Remember, the Landscape Industry IS the original "GREEN Industry" and this is your opportunity to make a positive influence on every aspect of your environment.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Landscape Construction Crew Leadership, Certificate of Completion
- Landscape Maintenance Crew Leadership, Certificate of Completion

Landscape Construction Crew Leadership, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- LAND 1121 - Plant Science 3 credit hour(s)
- LAND 1221 - Soil Science 3 credit hour(s)
- LAND 1321 - Comprehensive Irrigation Techniques 2 credit hour(s)
- LAND 1501 - Landscape Design 3 credit hour(s)
- LAND 1701 - Crew Leadership 2 credit hour(s)
- OSH 2006 - Occupational Safety for Construction I 1 credit hour(s)

Term 2

- LAND 1301 - Landscape Irrigation 3 credit hour(s)
- LAND 2110 - Landscape Construction 3 credit hour(s)
- LAND 2130 - Light Truck & Trailer Operation 2 credit hour(s)
- LAND 2140 - Construction Equipment Safety & Fundamentals 2 credit hour(s)
- LAND 2995 - Cooperative Education 3 credit hour(s)
- PLMB 1205 - Backflow Prevention 2 credit hour(s)

Certificate of Completion in Landscape Construction Crew Leadership 29 credit hour(s)

Landscape Maintenance Crew Leadership, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- LAND 1121 - Plant Science 3 credit hour(s)
- LAND 1221 - Soil Science 3 credit hour(s)
- LAND 1321 - Comprehensive Irrigation Techniques 2 credit hour(s)
- LAND 1501 - Landscape Design 3 credit hour(s)
- LAND 1701 - Crew Leadership 2 credit hour(s)
- OSH 2006 - Occupational Safety for Construction I 1 credit hour(s)

Term 2

- LAND 1421 - Weed & Pest Control 3 credit hour(s)

- LAND 2120 - Landscape Maintenance 3 credit hour(s)
- LAND 2130 - Light Truck & Trailer Operation 2 credit hour(s)
- LAND 2150 - Effective Irrigation Scheduling 3 credit hour(s)
- LAND 2995 - Cooperative Education 3 credit hour(s)
- PLMB 1205 - Backflow Prevention 2 credit hour(s)

Certificate of Completion in Landscape Maintenance Crew Leadership 30 credit hour(s)

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 35-38 credit hours, which is accepted by all New Mexico state colleges and universities as the general education core for degree completion.

Special Requirements

Students may also choose to complete an Associate of Arts in a particular discipline or field of study. Students then follow the transfer pathway in that area so they can more smoothly transfer into a major at UNM. Transfer degrees offered include Anthropology, Communication, Criminology, English, History, Political Science, Psychology, or Sociology.

Liberal Arts is also home to the General honors program, which transfers to the University of New Mexico's General Honors program. General Honors (GNHN) and Arts & Sciences topics courses numbered between 1096-1996 or 2096-2996 may be used as electives in the Liberal Arts degree. 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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Certificate and Degree Options

- Liberal Arts, Associate of Arts

Liberal Arts, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
-
- MATH 1210

  or
- MATH 1310
-
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 2

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Foreign Language Elective 3-4 credit hours(s)
- Humanities Requirement 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)

- Social/Behavioral Science Requirement 3 credit hour(s)

Term 3

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Elective 3 credit hour(s) (Math Recommended)
- Elective 3 credit hour(s) (Social/Behavioral Science Recommended)
- Fine Arts Requirement 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)

Term 4

- Elective 3 credit hour(s) (Fine Arts Recommended)
- Elective 3 credit hour(s) (Foreign Language Recommended)
- Elective 3 credit hour(s) (Humanities Recommended)
- Elective 3 credit hour(s) (Laboratory Science Recommended)
- Elective 3 credit hour(s) (Social/Behavioral Science Recommended)

Associate of Arts in Liberal Arts 62-64 credit hour(s)

This information is meant to serve as a general guide for students intending to transfer to a four-year school. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact the four-year transfer school to confirm specific admission and degree requirements.

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Machine Tool Technology, Certificate of Completion

Machine Tool Technology, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency

- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- MATT 1001 - Metals Math I 2 credit hour(s)
- MATT 1005 - Metals Blueprint Reading I 2 credit hour(s)
- MATT 1110 - Basic Lathe Principles 2 credit hour(s)
- MATT 1120 - Basic Milling Machine Principles 2 credit hour(s)
- MATT 1130 - Basic Supporting Machine Tool Principles 2 credit hour(s)
- MATT 1140 - Basic Measurement and Inspection 2 credit hour(s)

Term 2

- MATT 1030 - Metals Math II 2 credit hour(s)
- MATT 1035 - Metals Blueprint Reading II 2 credit hour(s)
- MATT 1210 - Intermediate Lathe Principles 2 credit hour(s)
- MATT 1220 - Intermediate Milling Machine Principles 2 credit hour(s)
- MATT 1230 - Intermediate Supporting Machine Tool Principles 2 credit hour(s)
- MATT 1240 - Computer Numerical Control I 2 credit hour(s)

Term 3

- MATT 1065 - Metallurgy 2 credit hour(s)
- MATT 2010 - Advanced Lathe Principles 2 credit hour(s)
- MATT 2005 - Machine Tool Technology CAD/CAM 2 credit hour(s)
- MATT 2020 - Advanced Milling Machine Principles 2 credit hour(s)
- MATT 2030 - Advanced Supporting Machine Tool Principles 2 credit hour(s)
- MATT 2040 - Computer Numerical Control II 2 credit hour(s)

Certificate of Completion in Machine Tool Technology 36 credit hour(s)

Manufacturing Technology

Program Description

Students must have completed the Electronics Technology associate's degree or a bachelor's degree in a related field from a regionally accredited college or university, and obtain department approval to pursue the Post Degree Certificate of Completion in Manufacturing Technology.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Certificate and Degree Options

- Manufacturing Technology, Post Degree Certificate of Completion

Manufacturing Technology, Post Degree Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Department Approval Program
- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Program Requirements

- Laboratory Science Requirement 4-5 credit hour(s)
- MEMS 1002 - Introduction to MEMS Theory 2 credit hour(s)
- MEMS 1092 - Introduction to MEMS Lab 1 credit hour(s)
- MEMS 1101 - Plasma – RF – Vacuum Systems Theory 2 credit hour(s)
- MEMS 1192 - Plasma – RF – Vacuum Systems Lab 2 credit hour(s)
- MEMS 2015 - MEMS Manufacturing Technology Theory 3 credit hour(s)
- MEMS 2092 - MEMS Manufacturing Technology Lab 2 credit hour(s)
- MEMS 2102 - Manufacturing Process Theory 2 credit hour(s)

- MEMS 2192 - Manufacturing Process Lab 1 credit hour(s)
- MEMS 2206 - MEMS Design Theory 2 credit hour(s)
- MEMS 2292 - MEMS Design Lab 1 credit hour(s)

Post Degree Certificate in Manufacturing Technology 25-26 credit hour(s)

Note:

A catalog change was made per catalog corrections team.

Medical Laboratory Sciences

Program Description

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: 5600 N. River Rd. Suite 720, Rosemont, IL 60018-5119; (847) 939-3597; naacls.org.

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.

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Immediate job placement prospects locally, regionally and nationally for all Medical Laboratory Science graduates

are 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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Phlebotomy Technician, Certificate of Achievement
- Clinical Laboratory Assistant, Certificate of Achievement
- Medical Laboratory Technician, Associate of Applied Science

Phlebotomy Technician, Certificate of Achievement

Program Information

Phlebotomists collect and process blood specimens using approved venipuncture and capillary puncture techniques. Requires a high level of professionalism when working with patients.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- High School Diploma or Equivalent
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency
- HLTH 1001

Learning Community Option

Term 1

- PHLB 1010 - Phlebotomy Theory 4 credit hour(s)
- PHLB 1090 - Clinical Phlebotomy 3 credit hour(s)
- PHLB 1092 - Phlebotomy Lab 2 credit hour(s)

Or

2-Term Option

Term 1

- PHLB 1010 - Phlebotomy Theory 4 credit hour(s)
- PHLB 1092 - Phlebotomy Lab 2 credit hour(s)

Term 2

- PHLB 1090 - Clinical Phlebotomy 3 credit hour(s)

Certificate of Achievement in Phlebotomy Technician 9 credit hours(s)

A catalog change was made per catalog corrections team.

Clinical Laboratory Assistant, Certificate of Achievement

Program Information

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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Program Proficiencies and/or Prerequisites

- Phlebotomy Technician, Certificate of Achievement

Recommended Sequence of Courses

- MLT 1007 - Clinical Success Seminar 1 credit hour(s)
- CLA 1012 - Basic Clinical Laboratory Theory 4 credit hour(s)
- CLA 1092 - Basic Clinical Laboratory Techniques 1 credit hour(s)
- CLA 1590 - Clinical Experience 3 credit hour(s)

Certificate in Clinical Laboratory Assistant 9 credit hour(s)

Medical Laboratory Technician, Associate of Applied Science

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- High School Diploma or Equivalent
- Coordinated Entry Program
- English 2 Proficiency
-
- MATH 1210

  or
- MATH 1310
-
- Reading 2 Proficiency
- HLTH 1001
- MLT 1010

Required Courses

- BIO 1310 - Human Anatomy and Physiology for Non-Majors 3 credit hour(s)

  and
- BIO 1392 - Human Anatomy and Physiology for Non-Majors Laboratory 1 credit hour(s)

  or
- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s)

  and
- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)

  and
- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)

  and
- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)

- BIO 1410 - Biology for Health Sciences 3 credit hour(s)
- BIO 1492 - Biology for Health Sciences Laboratory 1 credit hour(s)
- BIO 2110 - Microbiology 3 credit hour(s)
- BIO 2192 - Microbiology Laboratory 1 credit hour(s)

- CHEM 1410 - Introduction to Chemistry 3 credit hour(s)

  and
- CHEM 1492 - Introduction to Chemistry Laboratory 1 credit hour(s)

  or
- CHEM 1710 - General Chemistry I 3 credit hour(s)

  and

- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)

- CHEM 2210 - Organic Chemistry and Biochemistry 4 credit hour(s)

  or

- CHEM 2710 - Organic Chemistry I 3 credit hour(s)

  and

- CHEM 2792 - Organic Chemistry I Laboratory 1 credit hour(s)

- ENG 1101 - College Writing 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1330 - Introduction to Probability and Statistics 3 credit hour(s)

Term 1 (Fall Only)

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- MLT 1007 - Clinical Success Seminar 1 credit hour(s)
- MLT 1012 - Clinical Urinalysis 1 credit hour(s)
- MLT 1014 - Immunology 1 credit hour(s)
- MLT 1090 - Clinical Experience Urinalysis 1 credit hour(s)
- MLT 1092 - Clinical Urinalysis Laboratory 1 credit hour(s)
- MLT 1192 - Clinical Immunology 1 credit hour(s)
- MLT 1270 - Phlebotomy Skills 2 credit hour(s)
- MLT 1390 - Clinical Experience Phlebotomy Skills 2 credit hour(s)

Term 2

- MLT 1510 - Clinical Hematology 3 credit hour(s)
- MLT 1511 - Clinical Immunohematology 2 credit hour(s)
- MLT 1592 - Clinical Coagulation 1 credit hour(s)
- MLT 1692 - Clinical Hematology Laboratory 2 credit hour(s)
- MLT 1792 - Clinical Immunohematology Laboratory 2 credit hour(s)

Term 3

- MLT 2010 - MLT Microbiology 3 credit hour(s)
- MLT 2011 - Clinical Chemistry 3 credit hour(s)
- MLT 2092 - Clinical Chemistry Laboratory 1 credit hour(s)
- MLT 2590 - Clinical MLT Microbiology 3 credit hour(s)

Term 4

- MLT 2790 - Clinical Experience Capstone 10 credit hour(s)

Associate of Applied Science in Medical Laboratory Technician 72 credit hour(s)

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Medical Office Assistant, Certificate of Completion

Medical Office Assistant, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- CIS 1130 - Windows 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)
- OTEC 1170 - Business Telephone Techniques 1 credit hour(s)
- OTEC 1171 - Working with the Challenging Customer 1 credit hour(s)
- OTEC 1173 - Time Management Skills 1 credit hour(s)

Term 2

- HIT 1020 - Medical Terminology and Anatomy 3 credit hour(s)
- OTEC 1143 - Word Processing 3 credit hour(s)
- OTEC 1161 - Records and Information Management 2 credit hour(s)
- OTEC 1175 - Computers in the Medical Office 2 credit hour(s)
- OTEC 1192 - Keyboard Skillbuilding 2 credit hour(s)
- Program Approved Elective 2 credit hour(s)

Certificate of Completion in Medical Office Assistant 30 credit hour(s)

Program Approved Electives

- BA 1122 - Business Writing 3 credit hour(s)
- CIS 1150 - MS Outlook 1 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s)
- OTEC 1096-1996 - Special Topics 1-3 credit hour(s)
- OTEC 2200 - Advanced Word Processing 3 credit hour(s)
- OTEC 2270 - Medical Transcription 3 credit hour(s)
- OTEC 2095 - Cooperative Education 3 credit hour(s)
- OTEC 2097 - Independent Study 1-6 credit hour(s)
- OTEC 2098 - Internship 3 credit hour(s)

Metals Technology

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

Gainful Employment information is available from Job Connection Services.

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.

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 for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section.

Certificate and Degree Options

- Welding, Certificate of Completion
- Metals Technology, Associate of Applied Science

Welding, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- WELD 1005 - Welding Blueprint Reading I 2 credit hour(s)
- WELD 1020 - Introduction to Metallurgy 2 credit hour(s)
- WELD 1030 - Welding Math 2 credit hour(s)
- WELD 1050 - Oxyacetylene Welding and Cutting 2 credit hour(s)
- WELD 1150 - Introduction to SMAW 2 credit hour(s)
- WELD 1250 - Introduction to GTAW and Fabrication Lab 2 credit hour(s)
- WELD 1350 - Introduction to GMAW and Fabrication 2 credit hour(s)

Term 2

- WELD 1025 - Welding Blueprint Reading II 2 credit hour(s)
- WELD 2001 - Advanced Blueprint Reading 2 credit hour(s)
- WELD 1160 - Advanced SMAW 2 credit hour(s)
- WELD 1260 - Advanced GTAW and Fabrication 2 credit hour(s)
- WELD 1360 - Advanced GMAW and Fabrication 2 credit hour(s)
- WELD 1460 - Pipe Layout and Welding 2 credit hour(s)

Term 3

- WELD 1170 - Qualifications for SMAW 2 credit hour(s)
- WELD 1270 - Qualifications for GTAW 2 credit hour(s)
- WELD 1370 - Qualifications fo GMAW 2 credit hour(s)
- WELD 1570 - Project and Fabrication 2 credit hour(s)
- MATT 1060 - Machine Tool Technology Skills 3 credit hour(s)

Certificate of Completion in Welding 37 credit hour(s)

Metals Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Concentrations

- Machine Tool Technology
- Welding
- Machine Tool Technology Concentration

Term 1

- MATT 1001 - Metals Math I 2 credit hour(s)
- MATT 1005 - Metals Blueprint Reading I 2 credit hour(s)
- MATT 1110 - Basic Lathe Principles 2 credit hour(s)
- MATT 1120 - Basic Milling Machine Principles 2 credit hour(s)
- MATT 1130 - Basic Supporting Machine Tool Principles 2 credit hour(s)
- MATT 1140 - Basic Measurement and Inspection 2 credit hour(s)

Term 2

- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATT 1030 - Metals Math II 2 credit hour(s)
- MATT 1035 - Metals Blueprint Reading II 2 credit hour(s)
- MATT 1210 - Intermediate Lathe Principles 2 credit hour(s)
- MATT 1220 - Intermediate Milling Machine Principles 2 credit hour(s)
- MATT 1230 - Intermediate Supporting Machine Tool Principles 2 credit hour(s)
- MATT 1240 - Computer Numerical Control I 2 credit hour(s)

Term 3

- MATT 1065 - Metallurgy 2 credit hour(s)
- MATT 2005 - Machine Tool Technology CAD/CAM 2 credit hour(s)
- MATT 2010 - Advanced Lathe Principles 2 credit hour(s)
- MATT 2020 - Advanced Milling Machine Principles 2 credit hour(s)
- MATT 2030 - Advanced Supporting Machine Tool Principles 2 credit hour(s)
- MATT 2040 - Computer Numerical Control II 2 credit hour(s)

Term 4

- ENG 1101 - College Writing 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110, MATH 2096)
- MATT 2140 - Advanced Computer Numerical Control 2 credit hour(s)
- WELD 1062 - Welding Fundamentals 3 credit hour(s)

Term 5

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s) or higher

- Humanities/Fine Arts Requirement 3 credit hour(s)

  or

- Social/Behavioral Science Requirement 3 credit hour(s)

- MATT 1060 - Machine Tool Technology Skills 3 credit hour(s)
- MATT 2999 - Machine Tool Technology Capstone Course 1 credit hour(s)

Associate of Applied Science in Metals Technology, Machine Tool Technology Concentration 60-61 credit hour(s)

Welding Concentration

Term 1

- WELD 1005 - Welding Blueprint Reading I 2 credit hour(s)
- WELD 1020 - Introduction to Metallurgy 2 credit hour(s)
- WELD 1030 - Welding Math 2 credit hour(s)
- WELD 1050 - Oxyacetylene Welding and Cutting 2 credit hour(s)
- WELD 1150 - Introduction to SMAW 2 credit hour(s)
- WELD 1250 - Introduction to GTAW and Fabrication Lab 2 credit hour(s)
- WELD 1350 - Introduction to GMAW and Fabrication 2 credit hour(s)

Term 2

- WELD 1025 - Welding Blueprint Reading II 2 credit hour(s)
- WELD 1160 - Advanced SMAW 2 credit hour(s)
- WELD 1260 - Advanced GTAW and Fabrication 2 credit hour(s)
- WELD 1360 - Advanced GMAW and Fabrication 2 credit hour(s)
- WELD 1460 - Pipe Layout and Welding 2 credit hour(s)
- WELD 2001 - Advanced Blueprint Reading 2 credit hour(s)

Term 3

- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

- MATT 1060 - Machine Tool Technology Skills 3 credit hour(s)
- WELD 1170 - Qualifications for SMAW 2 credit hour(s)
- WELD 1270 - Qualifications for GTAW 2 credit hour(s)
- WELD 1370 - Qualifications fo GMAW 2 credit hour(s)
- WELD 1570 - Project and Fabrication 2 credit hour(s)

Term 4

- CAD 1001 - Basics Of CAD 1 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s) or higher

- Humanities/Fine Arts Requirement 3 credit hour(s)

  or
- Social/Behavioral Science Requirement 3 credit hour(s)

- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110, MATH 2096)
- WELD 1480 - Qualifications for Pipe 2 credit hour(s)
- WELD 1580 - Advance Project and Fabrication Lab 2 credit hour(s)
- WELD 2999 - Welding Capstone Course 1 credit hour(s)

- OSH 2009 - Occupational Safety for Construction II 2 credit hour(s)

  or
- OSH 2016 - Occupational Safety I 1 credit hour(s)

  and
- OSH 2017 - Occupational Safety II 1 credit hour(s)

  and
- OSH 2018 - Occupational Safety III 1 credit hour(s)

Associate of Applied Science in Metals Technology, Welding Concentration 60-62 credit hour(s)

Note:

A catalog change was made per catalog corrections team.

Nursing

Program Information

All CNM nursing courses emphasize a holistic approach that encourages students to embrace the concepts of clear communication, critical thinking and compassion when caring for patients. The Nursing program curriculum includes classroom, laboratory, and supervised clinical instruction that combines an essential set of arts and sciences classes with the nursing courses.

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. The ASN program is accredited through the National League of Nursing Accrediting Commission.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Requirements

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. 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 must be completed before beginning clinical courses. Students must be able to safely perform program specific activities and lift a minimum of 50 pounds. 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.

Certificate and Degree Options

- Nurse Refresher
- Nursing, Associate of Applied Science
- Nursing (LPN Mobility), Associate of Applied Science

Nurse Refresher

Program Description

- Provide nurses with an opportunity to update their knowledge and skills of pharmacology, dosage calculation and medical surgical nursing
- Provide nurses with an opportunity to update their practice in a medical surgical or skilled nursing facility

Courses

- NR 2110 - Nursing Refresher Course 7 credit hour(s)
- NR 2190 - Nurse Refresher Clinical Application 2 credit hour(s)

Nursing (LPN Mobility), Associate of Applied Science

Program Description

This program allows qualified licensed practical nurses to complete their Associate of Applied Science in Nursing (AASN) by entering into the third term of the Nursing, Associate of Applied Science program. Graduates of the 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.

All CNM nursing courses emphasize a holistic approach that encourages students to embrace the concepts of clear communication, critical thinking and compassion when caring for patients. The Nursing program curriculum includes classroom, laboratory, and supervised clinical instruction that combines an essential set of arts and sciences classes with the nursing courses. Specific terms of licensure can be obtained through the New Mexico Board of Nursing. The AASN and PN programs are accredited through the National League of Nursing Accrediting Commission, Inc. 3343 Peachtree Rd. NE, Suite 850, Atlanta, GA 30326.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Requirements for entering clinical courses

Demonstrated competence in Basic Patient Care skills is required. Students accomplish this by successfully demonstrating the skills at a Competency Check-Off Session, completing the NA or BPCS courses at CNM, have a current NM CNA Certification or complete Nursing 223 at the University of New Mexico. The skills competence (Competency Check-Off Session, BPCS 1010, or UNM NURS 223) must be completed no more than 24 months before the student's start date in the Nursing Program.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical

experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Nursing program graduates find employment in hospitals, long-term care facilities, home health care and physicians' offices. Practical work under the supervision of registered nurses, physicians, or dentists. 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.

Graduates of the program meet the requirements set by the New Mexico State Board of Nursing to take the NCLEX-PN licensing examination.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- English 2 Proficiency
-
- Math 2 Proficiency

  or
- Math 3 Proficiency (Recommended)
-
- Reading 2 Proficiency
-
- BIO 1410

  and
- BIO 1492
-
- CHEM 1410

  and
- CHEM 1492

  or
- CHEM 1710

and

- CHEM 1792

Required Courses

- BIO 2110 - Microbiology 3 credit hour(s)
- BIO 2192 - Microbiology Laboratory 1 credit hour(s)
- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s)
- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)
- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)
- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (MATH 1330 Recommend if planning on transferring to a 4-year degree)
- NUTR 2110 - Human Nutrition 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- PSY 2220 - Developmental Psychology 3 credit hour(s)

Term 1

- NURS 2084 - Concepts for LPN to RPN Transitioning Students 2 credit hour(s)
- NURS 1007 - Dosage Calculations (CR/NC) 1 credit hour(s)
- NURS 2002 - Pharmacology in Nursing 3 credit hour(s)

Term 2

- NURS 2580 - Family Nursing 10 credit hour(s)

Term 3

- NURS 2680 - Complex Health Problems 9 credit hour(s)
- NURS 2515 - Manager of Care 1 credit hour(s)

Associate of Applied Science in Nursing, LPN Mobility 72-73 credit hour(s)

Upon completion of the program, the 18 credit hours for NURS 1080 and NURS 1580 will be awarded to the students.

Nursing, Associate of Applied Science

Program Information

Graduates of the Associate of Applied Science in Nursing (AASN) 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 integrate the required arts and sciences courses with the nursing courses.

The AASN program is accredited through the National League gfor Nursing Accrediting Commission.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

AASN Graduates find employment in hospitals, long-term care facilities, home health care and physicians' offices. 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 and obtain specialty credentials.

Exit competencies for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section.

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- English 2 Proficiency
-
- Math 2 Proficiency

  or
- Math 3 Proficiency (Recommended)
-
- Reading 2 Proficiency
-
- BIO 1410

  and
- BIO 1492
-
- CHEM 1410

  and
- CHEM 1492

  or
- CHEM 1710

  and
- CHEM 1792

Required Courses

*Must be completed within five years of applying; will accept BIO 2710 and BIO 2711 (Pathophysiology I and II) in lieu of re-taking Anatomy and Physiology I and II.

- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s) *
- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)
- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s) *
- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)
- BIO 2110 - Microbiology 3 credit hour(s)
- BIO 2192 - Microbiology Laboratory 1 credit hour(s) *
- ENG 1101 - College Writing 3 credit hour(s)
- NUTR 2110 - Human Nutrition 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- PSY 2220 - Developmental Psychology 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (MATH 1330 Recommended if planning on transferring to a 4-year degree)

Term 1

- NURS 1007 - Dosage Calculations (CR/NC) 1 credit hour(s)
- NURS 1080 - Introduction to Nursing 9 credit hour(s)

Term 2

- NURS 1580 - Nursing Care of the Adult Client 9 credit hour(s)
- NURS 2002 - Pharmacology in Nursing 3 credit hour(s)

Term 3

- NURS 2580 - Family Nursing 10 credit hour(s)

Term 4

- NURS 2680 - Complex Health Problems 9 credit hour(s)
- NURS 2515 - Manager of Care 1 credit hour(s)

Associate of Applied Science in Nursing 72-73 credit hour(s)

Nursing Assistant

Special Requirements

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Jobs are available in hospitals, outpatient clinics, nursing homes, and private homes.

Exit competencies for this program of study are available at cnm.edu/exitcomp

For the graduation policy refer to the Graduating From CNM section.

Certificate and Degree Options

- Nursing Assistant, Certificate of Achievement
- Nursing Assistant/Unit Coordinator, Certificate of Achievement

Nursing Assistant, Certificate of Achievement

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 2 Proficiency

Required Sequence of Courses

- HLTH 1001 - Clinical Preparation 1 credit hour(s) (Students must complete HLTH 1001 prior to the clinical portion of NA 1015, denoted by HOSP)
- NA 1015 - Nursing Assistant 6 credit hour(s)

Certificate of Achievement in Nursing Assistant 7 credit hour(s)

Nursing Assistant/Unit Coordinator, Certificate of Achievement

Program Description

To earn the NAUC certificate, students must complete two courses of study (NA and PCT). During NA 1015, students study basic patient care skills, including both classroom and lab instruction and clinical experience. Topics include basic patient care skills, geriatrics, simple anatomy and physiology, rehabilitation, residents' rights, and communication. This course is web-enhanced and requires students to have computer access. Lab experiences focus on personal care, vital signs, and mobility skills. Clinical experience will focus on providing basic patient care skills to residents or patients.

PCT courses provide instruction and laboratory practice for intermediate patient care skills such as urinary catheterization and removal, sterile dressings, wound care, venipuncture, nasogastric tube insertion and removal, ostomy care and point-of-care testing. Students will learn basic medical terminology, medical abbreviations, order transcription, and unit coordinator duties. At the completion of PCT, students will possess the skills necessary to work in hospitals and other acute care settings.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 2 Proficiency

Term 1

- HLTH 1001 - Clinical Preparation 1 credit hour(s) (Students must complete HLTH 1001 prior to the clinical portion of NA 1015, denoted by HOSP)
- NA 1015 - Nursing Assistant 6 credit hour(s)

Term 2

- PCT 1015 - Patient Care Tech 6 credit hour(s)
- PCT 1090 - Patient Care Tech Clinical 2 credit hour(s)
- Certificate of Achievement in Nursing Assistant/Unit Coordinator 15 credit hour(s)

Nutrition

Program Description

Students majoring in Nutrition examine the role of food and nutrition in overall health and disease prevention with an emphasis on the metabolic and physiological responses of the body to diet. Interested students can learn about career opportunities and pathways in Nutrition and related fields from the Academy of Nutrition and Dietetics.

The two-year program is designed to meet the requirements for an Associate of Science in Nutrition from CNM and prepare a student to obtain a Bachelor of Science in Nutrition and Dietetics at the University of New Mexico. However, students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students interested in transfer to UNM should consult the Department of Individual, Family, and Community Education - Nutrition/Dietetics Program. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Curricular Outcomes

- Recognize, apply and critically analyze and evaluate concepts related to the science of nutrition.
- Demonstrate ability to locate, interpret, and evaluate professional literature.
- Demonstrate an understanding of the role of food and lifestyle choices and their relationship to health status.
- Identify and use mathematical methods to calculate nutrient needs.
- Demonstrate mastery of information literacy and the ability to recognize and use appropriate technologies.
- Demonstrate effective communication.
- Identify cultural, behavioral, and social influences on food choices.
- Demonstrate skills in critical thinking and problem solving.

Certificate and Degree Options

- Nutrition, Associate of Science

Nutrition, Associate of Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- MATH 1310
- Reading 2 Proficiency

Term 1

- BIO 1410 - Biology for Health Sciences 3 credit hour(s)
- BIO 1492 - Biology for Health Sciences Laboratory 1 credit hour(s)
- COMM 1130 - Public Speaking 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s)

Term 2

- CHEM 1710 - General Chemistry I 3 credit hour(s)
- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Fine Arts Approved Requirement 3 credit hour(s)
- MATH 1330 - Introduction to Probability and Statistics 3 credit hour(s)
- Social/Behavioral Sciences Approved Requirement 3 credit hour(s)

Term 3

- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s)
- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)
- CHEM 1810 - General Chemistry II 3 credit hour(s)
- CHEM 1892 - General Chemistry II Lab 1 credit hour(s)
- Humanities Approved Requirement 3 credit hour(s)
- NUTR 2110 - Human Nutrition 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

Term 4

- CHEM 2710 - Organic Chemistry I 3 credit hour(s)
- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)
- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)
- ENG 2219 - Technical Writing 3 credit hour(s)
- Foreign Language Approved Requirement 3 credit hour(s)
- Humanities Approved Requirement 3 credit hour(s)

Associate of Science in Nutrition 65 credit hour(s)

Program Approved Requirements

Social/Behavioral Sciences

- ANTH 1101 - Intro Anthropology 3 credit hour(s)
- ANTH 1110 - Language Culture and the Human Animal 3 credit hour(s)
- ANTH 1130 - Cultures of the World 3 credit hour(s)
- ECON 2200 - Macroeconomics 3 credit hour(s)
- ECON 2201 - Microeconomics 3 credit hour(s)
- GEOG 1102 - Human Geography 3 credit hour(s)
- PSCI 1110 - The Political World 3 credit hour(s)
- PSCI 2200 - U.S. Politics 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Humanities

- ENG 1150 - Study Of Literature 3 credit hour(s)
- HIST 1101 - Western Civilization I 3 credit hour(s)
- HIST 1102 - Western Civilization II 3 credit hour(s)
- HIST 1161 - History of the United States I 3 credit hour(s)
- HIST 1162 - History of the United States II 3 credit hour(s)
- PHIL 1110 - Introduction to Philosophical Thought 3 credit hour(s)
- RLGN 1107 - Living World Religions 3 credit hour(s)
- RLGN 2263 - Eastern Religions 3 credit hour(s)

Foreign Language

- FREN 1101 - Beginning French I 4 credit hour(s)

- FREN 1102 - Beginning French II 4 credit hour(s)
- FREN 2201 - Intermediate French 4 credit hour(s)
- FREN 2202 - Intermediate French II 4 credit hour(s)
- SPAN 1101 - Beginning Spanish 4 credit hour(s)
- SPAN 1102 - Beginning Spanish II 4 credit hour(s)
- SPAN 1103 - Beginning Spanish I Conversation 3 credit hour(s)
- SPAN 1111 - Heritage Spanish Language 4 credit hour(s)
- SPAN 1112 - Heritage Spanish Language II 4 credit hour(s)
- SPAN 2201 - Intermediate Spanish I 3 credit hour(s)
- SPAN 2202 - Intermediate Spanish II 3 credit hour(s)
- SPAN 2203 - Intermediate Spanish II Conversation 3 credit hour(s)
- SPAN 2375 - Accelerated Beginning Spanish 6 credit hour(s)
- SPAN 2376 - Accelerated Intermediate Spanish 6 credit hour(s)

Fine Arts

- ARTH 1101 - Introduction to Art 3 credit hour(s)
- ARTH 2201 - History Of Art I 3 credit hour(s)
- ARTH 2202 - History Of Art II 3 credit hour(s)
- MUS 1139 - Early Music Appreciation 3 credit hour(s)
- MUS 1140 - Modern Music Appreciation 3 credit hour(s)
- THEA 1122 - Introduction to Theatre 3 credit hour(s)

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.

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

Gainful Employment information is available from Job Connection Services.

Many graduates decide to continue for their Office Technology Certificate or Associate of Applied Science degree.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Office Assistant, Certificate of Completion

Office Assistant, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

- Students must demonstrate proficiency in these areas either by placement scores or specific course work.
- English 2 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)
- OTEC 1170 - Business Telephone Techniques 1 credit hour(s)
- OTEC 1171 - Working with the Challenging Customer 1 credit hour(s)
- OTEC 1173 - Time Management Skills 1 credit hour(s)

Term 2

- ACCT 1109 - Business Math 3 credit hour(s)
- CIS 1130 - Windows 1 credit hour(s)

- CIS 1150 - MS Outlook 1 credit hour(s)
- OTEC 1143 - Word Processing 3 credit hour(s)
- OTEC 1161 - Records and Information Management 2 credit hour(s)
- OTEC 1192 - Keyboard Skillbuilding 2 credit hour(s)
- Program Approved Elective 2 credit hour(s)

Certificate of Completion in Office Assistant 29 credit hour(s)

Program Approved Electives

- BA 1122 - Business Writing 3 credit hour(s)
- CIS 1145 - Microsoft Powerpoint 2 credit hour(s)
- CIS 1173 - Excel Complete 3 credit hour(s)
- HIT 1020 - Medical Terminology and Anatomy 3 credit hour(s)
- OTEC 1096-1996 - Special Topics 1-3 credit hour(s)
- OTEC 1175 - Computers in the Medical Office 2 credit hour(s)
- OTEC 1193 - Keyboard Skillbuilding II 1 credit hour(s)
- OTEC 2200 - Advanced Word Processing 3 credit hour(s)
- OTEC 2095 - Cooperative Education 3 credit hour(s)
- OTEC 2097 - Independent Study 1-6 credit hour(s)
- OTEC 2098 - Internship 3 credit hour(s)

Office Technology

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Records Clerk, Certificate of Achievement
- Medical Office Transcription, Certificate of Completion
- Office Technology, Certificate of Completion
- Office Technology, Associate of Applied Science

Records Clerk, Certificate of Achievement

Program Description

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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)

Term 2

- CIS 1183 - Access Complete 3 credit hour(s)
- OTEC 1161 - Records and Information Management 2 credit hour(s)

Certificate of Achievement in Records Clerk 17 credit hour(s)

Medical Office Transcription, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1121 - Business English 3 credit hour(s)
- HIT 1020 - Medical Terminology and Anatomy 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)

Term 2

- OTEC 1143 - Word Processing 3 credit hour(s)
- OTEC 1192 - Keyboard Skillbuilding 2 credit hour(s)

Term 3

- OTEC 1193 - Keyboard Skillbuilding II 1 credit hour(s)
- OTEC 2270 - Medical Transcription 3 credit hour(s)

Certificate of Completion in Medical Office Transcription 21 credit hour(s)

Office Technology, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Reading 2 Proficiency

Concentrations

- Medical Concentration

Term 1

- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)
- OTEC 1170 - Business Telephone Techniques 1 credit hour(s)
- OTEC 1171 - Working with the Challenging Customer 1 credit hour(s)
- OTEC 1173 - Time Management Skills 1 credit hour(s)

Term 2

- ACCT 1109 - Business Math 3 credit hour(s)
- BA 1122 - Business Writing 3 credit hour(s)
- OTEC 1143 - Word Processing 3 credit hour(s)
- OTEC 1161 - Records and Information Management 2 credit hour(s)
- OTEC 1175 - Computers in the Medical Office 2 credit hour(s)
- OTEC 1192 - Keyboard Skillbuilding 2 credit hour(s)

Term 3

- BA 1101 - Introduction to Business 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- HIT 1020 - Medical Terminology and Anatomy 3 credit hour(s)
- OTEC 2200 - Advanced Word Processing 3 credit hour(s)

Certificate of Completion in Office Technology, Medical Concentration 42 credit hour(s)

A catalog change was made per catalog corrections team.

Office Technology Concentration

Term 1

- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)
- OTEC 1170 - Business Telephone Techniques 1 credit hour(s)
- OTEC 1171 - Working with the Challenging Customer 1 credit hour(s)
- OTEC 1173 - Time Management Skills 1 credit hour(s)

Term 2

- ACCT 1109 - Business Math 3 credit hour(s)
- BA 1122 - Business Writing 3 credit hour(s)
- CIS 1150 - MS Outlook 1 credit hour(s)
- OTEC 1143 - Word Processing 3 credit hour(s)
- OTEC 1161 - Records and Information Management 2 credit hour(s)
- OTEC 1192 - Keyboard Skillbuilding 2 credit hour(s)

Term 3

- BA 1101 - Introduction to Business 3 credit hour(s)
- CIS 1145 - Microsoft Powerpoint 2 credit hour(s)
- CIS 1173 - Excel Complete 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- OTEC 1193 - Keyboard Skillbuilding II 1 credit hour(s)
- OTEC 2200 - Advanced Word Processing 3 credit hour(s)

Certificate of Completion in Office Technology, Office Technology Concentration 44 credit hour(s)

Office Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Concentrations

- Medical
- Office Technology

Medical Concentration

Term 1

- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)
- OTEC 1170 - Business Telephone Techniques 1 credit hour(s)
- OTEC 1171 - Working with the Challenging Customer 1 credit hour(s)
- OTEC 1173 - Time Management Skills 1 credit hour(s)

Term 2

- ACCT 1109 - Business Math 3 credit hour(s)
- BA 1122 - Business Writing 3 credit hour(s)
- OTEC 1143 - Word Processing 3 credit hour(s)
- OTEC 1161 - Records and Information Management 2 credit hour(s)
- OTEC 1175 - Computers in the Medical Office 2 credit hour(s)
- OTEC 1192 - Keyboard Skillbuilding 2 credit hour(s)

Term 3

- BA 1101 - Introduction to Business 3 credit hour(s)
- CIS 1173 - Excel Complete 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- HIT 1020 - Medical Terminology and Anatomy 3 credit hour(s)
- OTEC 2200 - Advanced Word Processing 3 credit hour(s)

Term 4

- Communication Requirement 3 credit hour(s)
- HIT 1030 - Health Data Content and Structure 4 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)
- OTEC 2260 - Business Procedures 3 credit hour(s)
- OTEC 2270 - Medical Transcription 3 credit hour(s)

Associate of Applied Science in Office Technology, Medical Concentration 65 credit hour(s)

Office Technology Concentration

Term 1

- BA 1121 - Business English 3 credit hour(s)
- BA 1131 - Business Interpersonal Skills 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- OTEC 1101 - Beginning Keyboarding 3 credit hour(s)
- OTEC 1170 - Business Telephone Techniques 1 credit hour(s)
- OTEC 1171 - Working with the Challenging Customer 1 credit hour(s)
- OTEC 1173 - Time Management Skills 1 credit hour(s)

Term 2

- ACCT 1109 - Business Math 3 credit hour(s)
- BA 1122 - Business Writing 3 credit hour(s)
- CIS 1150 - MS Outlook 1 credit hour(s)
- OTEC 1143 - Word Processing 3 credit hour(s)
- OTEC 1161 - Records and Information Management 2 credit hour(s)
- OTEC 1192 - Keyboard Skillbuilding 2 credit hour(s)

Term 3

- ACCT 1111 - Accounting IA 3 credit hour(s)
- BA 1101 - Introduction to Business 3 credit hour(s)
- CIS 1145 - Microsoft Powerpoint 2 credit hour(s)
- CIS 1173 - Excel Complete 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- OTEC 1193 - Keyboard Skillbuilding II 1 credit hour(s)

- OTEC 2200 - Advanced Word Processing 3 credit hour(s)

Term 4

- Communication Requirement 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096-2996)
- OTEC 2231 - Business Editing Techniques 3 credit hour(s)
- OTEC 2260 - Business Procedures 3 credit hour(s)
- Program Approved Elective 2 credit hour(s)

Associate of Applied Science in Office Technology, Office Technology Concentration 65 credit hour(s)

Program Approved Electives

- ACCT 1410 - Quickbooks Complete 3 credit hour(s)
- CIS 1183 - Access Complete 3 credit hour(s)
- CIS 2310 - Page Layout and Type Design 3 credit hour(s)
- CIS 2340 - Dreamweaver 2 credit hour(s)
- Foreign Language 3-4 credit hour(s)
- OTEC 1096-1996 - Special Topics 1-3 credit hour(s)
- OTEC 1175 - Computers in the Medical Office 2 credit hour(s)
- OTEC 2095 - Cooperative Education 3 credit hour(s)
- OTEC 2097 - Independent Study 1-6 credit hour(s)
- OTEC 2098 - Internship 3 credit hour(s)
- OTEC 2270 - Medical Transcription 3 credit hour(s)

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).

Special Requirements

Students with a criminal background may have limited employment opportunities. Students should contact appropriate agencies and employers for hiring and employment practices.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Employment opportunities include placement in law firms, corporate legal departments, legal aid offices, public agencies and insurance companies.

Students with a criminal background may have limited employment opportunities. Students should contact appropriate agencies and employers for hiring and employment practices.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Paralegal Studies, Associate of Applied Science

- Paralegal Studies, Post Degree Certificate of Completion

Paralegal Studies, Post Degree Certificate of Completion

Program Description

Students must have a bachelor's or an associate's degree from a regionally 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 director or HWPS School Advisor is required for individuals entering the Post Degree Paralegal Studies Certificate program.

Special Requirements

Students must have department approval to declare the Post Degree Paralegal Studies Certificate as their major.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Department Approval Program
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Program Requirements

- Program Approved Elective 3 credit hour(s)
- CIS 1125 - Word Fundamentals 1 credit hour(s)
- PL 1110 - Introduction to Paralegal Studies 3 credit hour(s)
- PL 1120 - American Law and Ethics 3 credit hour(s)
- PL 1130 - Torts 3 credit hour(s)
- PL 1140 - Legal Research and Writing I 3 credit hour(s)

- PL 2098 - Internship 3 credit hour(s)

  or

- PL 2095 - Cooperative Education 3 credit hour(s)

- PL 2120 - Civil Litigation 3 credit hour(s)
- PL 2130 - Criminal Litigation 3 credit hour(s)
- PL 2140 - Legal Research and Writing II 3 credit hour(s)
- PL 2230 - Computer-Aided Legal Research 1 credit hour(s)
- PL 2233 - Computer Applications in Law Practice 1 credit hour(s)
- PL 2236 - Specialized Legal Software 1 credit hour(s)

Post Degree Certificate in Paralegal Studies 31 credit hour(s)

Program Approved Electives

- PL 1096-1996 - Special Topics 1-3 credit hour(s)

  and/or

- PL 2096-2996 - Special Topics 1-3 credit hour(s)

- PL 2097 - Independent Study 1-9 credit hour(s)
- PL 2150 - Evidence 3 credit hour(s)
- PL 2160 - Law Office Management 3 credit hour(s)
- PL 2220 - Wills Probate and Estate Planning 3 credit hour(s)
- PL 2415 - Business Organizations 3 credit hour(s)
- PL 2420 - Contract Law 3 credit hour(s)
- PL 2425 - Domestic Relations 3 credit hour(s)

- PL 2430 - Constitutional Law 3 credit hour(s)
- PL 2435 - Civil Litigation II 3 credit hour(s)
- PL 2440 - Criminal Litigation II 3 credit hour(s)
- PL 2445 - Personal Injury Law 3 credit hour(s)
- PL 2450 - Administrative Law 3 credit hour(s)
- PL 2455 - Employment Law 3 credit hour(s)
- PL 2460 - Native American Law 3 credit hour(s)
- PL 2465 - Social Security Law 3 credit hour(s)
- PL 2470 - Bankruptcy Law 1 credit hour(s)
- PL 2520 - Mediation 3 credit hour(s)
- PL 2530 - Public Defender 3 credit hour(s)

Paralegal Studies, Associate of Applied Science

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).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- BA 1121 - Business English 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- Human Relations Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- PL 1110 - Introduction to Paralegal Studies 3 credit hour(s)
- PL 1120 - American Law and Ethics 3 credit hour(s)

Term 2

- CIS 1120 - Microsoft Word 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- PHIL 1156 - Logic and Critical Thinking 3 credit hour(s)
- PL 1130 - Torts 3 credit hour(s)
- PL 1140 - Legal Research and Writing I 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

Term 3

- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2096 and MATH 2110) (MATH 1315 Recommend if planning on transferring to a 4-year degree)
- PL 2120 - Civil Litigation 3 credit hour(s)
- PL 2140 - Legal Research and Writing II 3 credit hour(s)
- PL 2150 - Evidence 3 credit hour(s)
- PL 2160 - Law Office Management 3 credit hour(s)

Term 4

- PL 2130 - Criminal Litigation 3 credit hour(s)
- PL 2220 - Wills Probate and Estate Planning 3 credit hour(s)
- PL 2230 - Computer-Aided Legal Research 1 credit hour(s)
- PL 2233 - Computer Applications in Law Practice 1 credit hour(s)
- PL 2236 - Specialized Legal Software 1 credit hour(s)

- PL 2098 - Internship 3 credit hour(s)

  or

- PL 2095 - Cooperative Education 3 credit hour(s)

- Approved AAS Elective 3 credit hour(s)

Associate of Applied Science in Paralegal Studies 66-67 credit hour(s)

Approved AAS Electives

- ACCT 1111 - Accounting IA 3 credit hour(s)

  or

- ACCT 1112 - Accounting IB 3 credit hour(s)

- CJ 1002 - Criminal Law 3 credit hour(s)
- CJ 1007 - Criminal Procedure 3 credit hour(s)
- CJ 1502 - Juvenile Law and Procedure 3 credit hour(s)
- CJ 2007 - White Collar Crimes 3 credit hour(s)
- CJ 2515 - Criminal Investigation 3 credit hour(s)

- PL 1096-1996 - Special Topics 1-3 credit hour(s)

  and/or

- PL 2096-2996 - Special Topics 1-3 credit hour(s)

- PL 1150 - Court Operations and Ethics 3 credit hour(s)
- PL 2097 - Independent Study 1-9 credit hour(s)
- PL 2415 - Business Organizations 3 credit hour(s)
- PL 2420 - Contract Law 3 credit hour(s)
- PL 2425 - Domestic Relations 3 credit hour(s)
- PL 2430 - Constitutional Law 3 credit hour(s)
- PL 2435 - Civil Litigation II 3 credit hour(s)
- PL 2440 - Criminal Litigation II 3 credit hour(s)
- PL 2445 - Personal Injury Law 3 credit hour(s)
- PL 2450 - Administrative Law 3 credit hour(s)
- PL 2455 - Employment Law 3 credit hour(s)
- PL 2460 - Native American Law 3 credit hour(s)
- PL 2465 - Social Security Law 3 credit hour(s)
- PL 2470 - Bankruptcy Law 1 credit hour(s)
- PL 2520 - Mediation 3 credit hour(s)
- PL 2530 - Public Defender 3 credit hour(s)

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 within 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. After completion of this training, students are New Mexico Board of Pharmacy certified to prepare sterile products. The Pharmacy Technician Program is accredited by the American Society of Health-System Pharmacists (ASHP).

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Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students

who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The Pharmacy Technician program typically has a high 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.

Students planning to continue their educations at higher education institutions are encouraged to take CHEM 1410/ CHEM 1492 and COMM 2221.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Pharmacy Technician, Certificate of Completion

Pharmacy Technician, Certificate of Completion

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- English 2 Proficiency

  or
- ENG 1101 (Recommended)
-
- Math 2 Proficiency
- Reading 2 Proficiency
-
- CHEM 1410

  and
- CHEM 1492

Term 1

This program's first term courses are offered every other term. This may delay a student's program start date. Please check with an academic advisor for more information.

- HLTH 1001 - Clinical Preparation 1 credit hour(s)

- IT 1010 - Introduction to Computers 3 credit hour(s)
- PT 1003 - Pharmacy Calculations 3 credit hour(s)
- PT 1010 - Introduction to Pharmacy Technology 3 credit hour(s)
- PT 1015 - Pharmacy Technician Anatomy and Physiology 3 credit hour(s)
- PT 1092 - Pharmacy Technician Lab I 2 credit hour(s)

Term 2

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or

- COMM 2225 - Small-Group Communication Studies 3 credit hour(s)

  or

- COMM 2232 - Business and Professional Communication Studies 3 credit hour(s)

- PT 1510 - Advanced Pharmacy Technology 3 credit hour(s)
- PT 1515 - Pharmacology for Pharmacy Technicians 3 credit hour(s)
- PT 1590 - Pharmacy Technician Practicum 5 credit hour(s)
- PT 1592 - Pharmacy Technician Lab II 2 credit hour(s)

Certificate of Completion in Pharmacy Technician 31 credit hour(s)

Photonics Technology

Program Description

The program is designed to expose students to four major areas: laser systems, electronics, optics and electro-optics. Students study the laser both as an instrument and as an integral part of a system designed for industrial and scientific applications. The program includes topics such as laser alignment, safety and the use of lasers in electronics production, testing and maintenance. Through the program, students acquire a good working knowledge of light, optical principles, and optical components and systems. In addition, students receive in-depth classroom preparation in the scientific principles of laser and fiber optics to incorporate their skills and knowledge into developing electro-optical techniques and systems. The post degree certificate is designed for those who already possess the core Electronics Technology associate's degree or a degree in a related technical field from an accredited college or university.

Special Requirements

Students must have completed the core Electronics Technology certificate or a bachelor's degree from a regionally accredited college or university to pursue the Certificate of Completion in Photonics Technology.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Certificate and Degree Options

- Photonics Technology, Post Degree Certificate of Completion

Photonics Technology, Post Degree Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Department Approval Program
- English 2 Proficiency
- Math 3 Proficiency
- Reading 2 Proficiency

Term 1

- PHOT 1003 - Fundamentals of Photonics 3 credit hour(s)

- PHOT 2003 - Photonics and Laser Systems 4 credit hour(s)
- MEMS 1101 - Plasma – RF – Vacuum Systems Theory 2 credit hour(s)
- MEMS 1192 - Plasma – RF – Vacuum Systems Lab 2 credit hour(s)

Term 2

- PHOT 2013 - Advanced Photonics and Laser Systems 5 credit hour(s)
- Laboratory Science 4-5 credit hour(s)

Post Degree Certificate in Photonics Technology 20-21 credit hour(s)

Physics

Program Description

Students majoring in Physics examine the properties of matter and energy and the relationships between them. Interested students can learn about career opportunities and pathways in Physics and related fields from the American Institute of Physics.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

This two-year program is designed to meet the requirements for an Associate of Science in Physics from CNM and prepare a student to obtain a Bachelor of Science in Physics at the University of New Mexico (UNM). However, students from CNM seeking a baccalaureate degree may also transfer to other institutions.

Students interested in transfer to UNM should consult the UNM Physics and Astronomy Department. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Curricular Outcomes:

- Apply knowledge of physics and mathematics
- Identify, formulate and solve physics problems
- Demonstrate an ability to utilize basic laboratory equipment
- Conduct experiments, analyze and interpret data
- Communicate effectively
- Collaborate with peers in a laboratory setting
- Recognize/identify professional responsibility
- Recognize/identify the impact of the applications of physics in a global environmental and societal context

Certificate and Degree Options

- Physics, Associate of Science

Physics, Associate of Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- MATH 1410

  and

- MATH 1415

- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)

- MATH 1710 - Calculus I 4 credit hour(s)
- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)
- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)
- Humanities Requirement 3 credit hours
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- MATH 1715 - Calculus II 4 credit hour(s)
- PHYS 1810 - Physics for Scientists and Engineers II 4 credit hour(s)
- PHYS 1892 - Physics for Scientists and Engineers II Laboratory 1 credit hour(s)

Term 3

- CHEM 1710 - General Chemistry I 3 credit hour(s)
- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)
- MATH 2710 - Calculus III 4 credit hour(s)
- PHYS 2710 - Physics for Scientists and Engineers III 4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hours

Term 4

- CHEM 1810 - General Chemistry II 3 credit hour(s)
- CHEM 1892 - General Chemistry II Lab 1 credit hour(s)

- CSCI 1151 - Intro to Programming fo Non-Computer Science Majors 4 credit hour(s)

  or

- CSCI 1152 - Intro to Programming for Computer Science Majors 4 credit hour(s)

  or

- CSCI 1153 - Programming in Matlab 4 credit hour(s)

- Humanities Requirement 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hours

Associate of Science in Physics 65 credit hour(s)

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

Plumbing and Gas Fitting

Program Description

The Plumbing Certificate and Associate Degree programs provide 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 and Associate Degree programs 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Plumbing and Gas Fitting, Certificate of Completion
- Plumbing and Gas Fitting, Associate of Applied Science

Plumbing and Gas Fitting, Certificate of Completion

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency

Term 1

- PLMB 1105 - Plumbing and Safety Fundamentals 3 credit hour(s)
- OSH 2006 - Occupational Safety for Construction I 1 credit hour(s)
- PLMB 1305 - Trades Math 1 credit hour(s)
- PLMB 1120 - Drain Waste and Vent I 2 credit hour(s)
- PLMB 1110 - Blueprint Reading 2 credit hour(s)
- PLMB 1115 - Introduction to Gas Fitting and Pipe Laying 2 credit hour(s)
- PLMB 1130 - Piping Systems 2 credit hour(s)

Term 2

- PLMB 1125 - Drain Waste and Vent II 2 credit hour(s)
- PLMB 1225 - Building Maintenance and Repair 2 credit hour(s)
- PLMB 1215 - Plumbing Theory and Repair 2 credit hour(s)
- PLMB 1220 - Plumbing Code Applications 3 credit hour(s)
- PLMB 1235 - Gas Code Applications 3 credit hour(s)

Term 3

- PLMB 1205 - Backflow Prevention 2 credit hour(s)
- PLMB 1210 - Commercial Plumbing 2 credit hour(s)
- PLMB 1230 - Hydronics and Plumbing Systems 2 credit hour(s)
- PLMB 1320 - Solar Thermal Systems 3 credit hour(s)
- PLMB 1330 - Energy and Water Conservation Systems 3 credit hour(s)

Certificate of Completion in Plumbing 37 credit hour(s)

Plumbing and Gas Fitting, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Term 1

- OSH 2006 - Occupational Safety for Construction I 1 credit hour(s)
- PLMB 1105 - Plumbing and Safety Fundamentals 3 credit hour(s)
- PLMB 1110 - Blueprint Reading 2 credit hour(s)
- PLMB 1115 - Introduction to Gas Fitting and Pipe Laying 2 credit hour(s)
- PLMB 1120 - Drain Waste and Vent I 2 credit hour(s)
- PLMB 1130 - Piping Systems 2 credit hour(s)
- PLMB 1305 - Trades Math 1 credit hour(s)

Term 2

- ENG 1101 - College Writing 3 credit hour(s)
- PLMB 1125 - Drain Waste and Vent II 2 credit hour(s)
- PLMB 1215 - Plumbing Theory and Repair 2 credit hour(s)
- PLMB 1220 - Plumbing Code Applications 3 credit hour(s)
- PLMB 1225 - Building Maintenance and Repair 2 credit hour(s)
- PLMB 1235 - Gas Code Applications 3 credit hour(s)

Term 3

- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher
- PLMB 1205 - Backflow Prevention 2 credit hour(s)
- PLMB 1210 - Commercial Plumbing 2 credit hour(s)
- PLMB 1230 - Hydronics and Plumbing Systems 2 credit hour(s)
- PLMB 1320 - Solar Thermal Systems 3 credit hour(s)
- PLMB 1330 - Energy and Water Conservation Systems 3 credit hour(s)

Term 4

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- HVAC 1105 - Refrigerant Fundamentals 3 credit hour(s)
- HVAC 1110 - Basic Electricity 3 credit hour(s)
- HVAC 1120 - Motors & Controls 3 credit hour(s)
- HVAC 1205 - Air Conditioning 2 credit hour(s)
- HVAC 1225 - Heating Systems 2 credit hour(s)

Term 5

- Humanities Requirement 3 credit hour(s)

  or

- Social/Behavioral Science Requirement 3 credit hour(s)

- IT 1010 - Introduction to Computers 3 credit hour(s)
- PLMB 2999 - Plumbing Capstone Course 1 credit hour(s)
- WELD 1062 - Welding Fundamentals 3 credit hour(s)

Associate of Applied Science in Plumbing & Gas Fitting 69-70 credit hour(s)

Political Science

Program Description

Political Science is the study of political and governmental human behavior. Interested students can learn about career opportunities and pathways in political science and related fields from the American Political Science Association.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The two-year program is designed to meet the requirements for an Associate of Arts in Political Science from CNM and prepare a student to obtain a Bachelor of Arts in Political Science at University of New Mexico. However, students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students interested in transfer to UNM should consult the UNM Political Science department website and/or advisor at (505) 277-5104. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Certificate and Degree Options

- Political Science, Associate of Arts

Political Science, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
-
- MATH 1210

  or
- MATH 1310
-
- Reading 2 Proficiency

Term 1

- Program Approved Elective 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- Program Approved Elective 6 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)

Term 3

- Program Approved Elective 3 credit hour(s)
-
- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Laboratory Science Requirement 4 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Humanities Requirement 3 credit hour(s)

Term 4

- Program Approved Elective 3 credit hour(s)
- Elective 3 credit hour(s) (Math Recommended)
- Elective 3 credit hour(s) (Humanities Recommended)
- Elective 3 credit hour(s) (Fine Arts Recommended)
- Elective 3 credit hour(s) (Biological/Physicial Science Recommended)
-

Associate of Arts in Political Science 62-64 credit hour(s)

This information is meant to serve as a general guide for students intending to major in Political Science. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact the four-year transfer school to confirm specific admission and degree requirements.

Program Approved Electives

Please refer to the UNM Political Science Major and Minor Requirements as you select which courses to take at CNM. Choose from the following list of CNM courses

- PSCI 1110 - The Political World 3 credit hour(s)
- PSCI 2200 - U.S. Politics 3 credit hour(s)
- PSCI 2220 - Comparative Government and Politics 3 credit hour(s)
- PSCI 2240 - International Politics 3 credit hour(s)
- PSCI 2260 - Political Ideas 3 credit hour(s)

Pre-Health Sciences

Select the Pre-Health Sciences Program you are Interested in.

- Pre-Health Sciences, Associate of Arts for transferring to a Bachelors Program*
- Pre-Health Sciences, Associate of Arts for a Health Related Field

Pre-Health Sciences, Associate of Arts for transferring to a Bachelors Program*

Program Information

The Pre-Health Sciences degree is an associate of arts degree that prepares students to transfer to UNM or other four-year degree programs in numerous health-related fields. It fulfills the general education core courses for 4-year degrees required by the state of New Mexico. Students can choose a program below to view specific course requirements.

Students from CNM seeking a baccalaureate degree should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult an Academic Advisor in the Academic Advisement and Career Development office.

* This information is meant to serve as a general guide for students intending to major in health-related fields. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact the four-year transfer school to confirm specific admission and degree requirements. There may be program-specific requirements that must be met, and many programs require a competitive admissions process.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Certificate and Degree Options

- Pre-Health Science, General Health Sciences
- Pre-Health Science, Pre-Dental Hygiene Concentration
- Pre-Health Science, Pre-Emergency Medical Services Concentration
- Pre-Health Science, Pre-Exercise Science Concentration
- Pre-Health Science, Pre-Health Education: Community Health Concentration
- Pre-Health Science, Pre-Health Education: School Health Concentration
- Pre-Health Science, Pre-Medical Laboratory Sciences Concentration
- Pre-Health Science, Pre-Nursing Transfer Concentration
- Pre-Health Science, Pre-Pharmacy Concentration
-

Pre-Health Sciences, Associate of Arts for a Health Related Field

Program Information

The Pre-Health Sciences concentration is an Associate of Arts Degree program that prepares students to apply for health-related programs at CNM. It fulfills the general education core courses for 4-year degrees required by the state of New Mexico and the University of New Mexico core curriculum.

Students interested in pursuing any of the CNM health programs should refer to the list of requirements for their intended program, and speak with an advisor for help developing an individualized academic plan.

Students from CNM seeking a baccalaureate degree should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult an Academic Advisor in the Academic Advisement and Career Development office.

This information is meant to serve as a general guide for students intending to major in health-related fields. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact the four-year transfer school to confirm specific admission and degree requirements. There may be program-specific requirements that must be met, and many programs require a competitive admissions process.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Certificate and Degree Options

- Pre-Health Science, Pre-Biotechnology Concentration
- Pre-Health Science, Pre-Dental Assisting Concentration
- Pre-Health Science, Pre-Diagnostic Medical Sonography Concentration
- Pre-Health Science, Pre-Medical Laboratory Technician Concentration
- Pre-Health Science, Pre-Nursing Concentration
- Pre-Health Science, Pre-Paramedic Concentration
- Pre-Health Science, Pre-Radiologic Technology Concentration
- Pre-Health Science, Pre-Respiratory Therapy Concentration
- Pre-Health Science, Pre-Veterinary Technology Concentration

Psychology

Program Description

Psychology is the science of behavior and mental processes. Students of psychology learn about a variety of topics including nervous system function, human development, learning, memory, the role of the mind in physical health, and individual behavior in social contexts. Interested students can learn about career opportunities and pathways in psychology and related fields from the American Psychological Association.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The two-year program listed below is designed to meet the requirements for an Associate of Arts in Psychology from CNM and prepare a student to obtain a Bachelor of Arts in Psychology at University of New Mexico. However, students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students interested in transfer to UNM should consult the UNM psychology department and/or advisor at (505) 277-4121. Students should always refer to the catalog of their intended transfer institution for admission, program, course, and graduation requirements. College catalogs are generally available online. Students should also consult a faculty advisor and/or the CNM Academic Advising Center.

Minor in Psychology at UNM

Psychology minors at UNM complete PSY 1105 Introduction to Psychology and any 5 other psychology courses for a total of 18 credit hours, and 2 of those courses (6 credit hours) must be taken at UNM. Therefore, up to 4 total psychology courses (12 credit hours), selected from any psychology courses offered at CNM, can be applied toward graduation requirements for a psychology minor at UNM.

Certificate and Degree Options

- Psychology, Associate of Arts

Psychology, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- MATH 1210

  or

- MATH 1310

- Reading 2 Proficiency

Term 1

- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- Psychology Approved Elective 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Biological/Physical Science and Lab Requirement 4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)

Term 3

- Psychology Approved Elective 3 credit hour(s)

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Biological/Physical Science and Lab Requirement 4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)
- Elective 3 credit hour(s) (Math recommended)

Term 4

- PSY 2200 - Statistical Principles 3 credit hour(s)
- Psychology Approved Elective 3 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Elective 3 credit hour(s) (Humanities Recommended)
- Elective 3 credit hour(s) (Biological/Physical Science Recommended)

Associate of Arts in Psychology 62-64 credit hour(s)

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

Psychology Approved Electives

Choose from the following list of courses

- PSY 2220 - Developmental Psychology 3 credit hour(s)
- PSY 2240 - Brain and Behavior 3 credit hour(s)
- PSY 2260 - Psychology of Learning and Memory 3 credit hour(s)
- PSY 2265 - Cognitive Psychology 3 credit hour(s)
- PSY 2271 - Social Psychology 3 credit hour(s)
- PSY 2280 - Health Psychology 3 credit hour(s)

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 Applied 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

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background

checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Radiologic Technology, Associate of Applied Science

Radiologic Technology, Associate of Applied Science

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency
-
- BIO 1410

  and
- BIO 1492
-
- CHEM 1410

  and
- CHEM 1492

  or
- CHEM 1710

  and
- CHEM 1792

Required Courses

- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s)

  and

- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)

- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)

  and

- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)

- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110) (Recommend MATH 1315 if planning on transferring to a 4-year degree)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

Term 1 (Spring Only)

This program's first term courses are offered in the spring term only. This may delay a student's program start date. Please check with an academic advisor for more information.

- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- RADT 1003 - Introduction to Radiologic Technology 1 credit hour(s)
- RADT 1005 - Fundamentals of Radiography 3 credit hour(s)
- RADT 1070 - Radiographic Positioning I 3 credit hour(s)
- RADT 1090 - Clinical Radiography I 5 credit hour(s)

Term 2

- RADT 1507 - Patient Care and Management Radiography 2 credit hour(s)
- RADT 1520 - Radiation Biology and Protection 2 credit hour(s)
- RADT 1570 - Radiographic Positioning II 3 credit hour(s)
- RADT 1590 - Clinical Radiography II 4 credit hour(s)

Term 3

- RADT 2005 - Introduction to Quality Assurance 2 credit hour(s)
- RADT 2010 - Radiographic Imaging I 3 credit hour(s)
- RADT 2090 - Clinical Radiography III 6 credit hour(s)
- RADT 2092 - Radiographic Film Critique Lab 1 credit hour(s)

Term 4

- RADT 2404 - Radiographic Imaging II 1 credit hour(s)
- RADT 2408 - Radiographic Pathology 2 credit hour(s)
- RADT 2410 - Radiographic Physics and Instrumentation 3 credit hour(s)
- RADT 2490 - Clinical Radiography IV 6 credit hour(s)

Term 5

- RADT 2810 - Radiologic Technology Seminar 2 credit hour(s)
- RADT 2890 - Clinical Radiography V 8 credit hour(s)

Associate of Applied Science in Radiologic Technology 78-79 credit hour(s)

Note:

A catalog change was made per catalog corrections team.

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. The CNM Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care.

This program's first term courses are offered in the fall term only. This may delay a student's program start date. Please check with an academic advisor for more information.

Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 high 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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Respiratory Therapy, Associate of Applied Science

Respiratory Therapy, Associate of Applied Science

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- High School Diploma or Equivalent
- Coordinated Entry Program

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

- BIO 1410

  and

- BIO 1492

  or

- BIO 1510/1592

- CHEM 1410

  and

- CHEM 1492

  or

- CHEM 1710

  and

- CHEM 1792
-
- HLTH 1001

Required Courses

- BIO 2110 - Microbiology 3 credit hour(s)
- BIO 2192 - Microbiology Laboratory 1 credit hour(s)
- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s)
- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)
- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)
- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

- MATH 1210 - Methods of Problem Solving 4 credit hour(s)

  or

- MATH 1310 - Intermediate Algebra 4 credit hour(s)

  or

- MATH 1315 - College Algebra 3 credit hour(s)

- PHIL 2247 - Biomedical Ethics 3 credit hour(s)

Term 1 (Fall Only)

- This program’s first term courses are offered in the fall term only. This may delay a student’s program start date. Please check with an academic advisor for more information.
- RT 1010 - Respiratory Therapy Principles and Practices I 0 credit hour(s)
- RT 1020 - Physics of Respiratory Therapy 3 credit hour(s)
- RT 1070 - Respiratory Therapy Principles and Practices I 4 credit hour(s)
- RT 1090 - Clinical Experiences I 4 credit hour(s)

Term 2

- RT 1030 - Pharmacology of Respiratory Therapy 3 credit hour(s)
- RT 1510 - Respiratory Therapy Principles and Practices II 0 credit hour(s)
- RT 1540 - Cardiopulmonary Pathophysiology I 1 credit hour(s)
- RT 1570 - Respiratory Therapy Principles and Practices II 4 credit hour(s)
- RT 1590 - Clinical Experiences II 4 credit hour(s)

Term 3

- RT 2010 - Advanced Respiratory Therapy I 0 credit hour(s)
- RT 2070 - Advanced Respiratory Therapy I 4 credit hour(s)
- RT 2040 - Cardiopulmonary Pathophysiology II 1 credit hour(s)
- RT 2090 - Advanced Clinical Experiences I 4 credit hour(s)

Term 4

- RT 2410 - Advanced Respiratory Therapy II 0 credit hour(s)
- RT 2470 - Advanced Respiratory Therapy II 4 credit hour(s)
- RT 2440 - Cardiopulmonary Pathophysiology III 1 credit hour(s)
- RT 2490 - Advanced Clinical Experiences II 4 credit hour(s)

Term 5

- RT 2810 - Advanced Respiratory Therapy III 0 credit hour(s)
- RT 2870 - Advanced Respiratory Therapy III 4 credit hour(s)
- RT 2840 - Cardiopulmonary Pathophysiology IV 1 credit hour(s)
- RT 2890 - Advanced Clinical Experiences III 4 credit hour(s)

Associate of Applied Science in Respiratory Therapy 74-75 credit hour(s)

Sociology

Program Description

Sociology is a social science that examines the social lives of individuals, groups, and societies. The discipline covers a range of topics, from the analysis of short contacts between anonymous individuals on the street to the study of global social processes. Information about career options for sociology majors is offered by the American Sociological Association.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The two-year program listed below is designed to meet the requirements for an Associate of Arts in Sociology from CNM and prepare a student to obtain a Bachelor of Arts in Sociology at University of New Mexico (UNM). Currently, UNM offers two concentrations for the sociology degree: pre-law and human services and social policy. These concentrations have slightly different requirements; courses accepted for each concentration are listed.

Students interested in transfer to UNM should consult the UNM Sociology Department and/or advisor at (505) 277-2501. However, students from CNM seeking a baccalaureate degree may also transfer to other institutions. Students should always refer to the catalog of their intended transfer institution for specific admission and curricular requirements. Students may also consult a CNM faculty advisor and/or the CNM Academic Advising Center for assistance.

Certificate and Degree Options

- Sociology, Associate of Arts

Sociology, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- MATH 1210

  or

- MATH 1310

- Reading 2 Proficiency

Term 1

- SOC 1101 - Introduction To Sociology 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)
- Mathematics Requirement 3-4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- Program Approved Elective 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)
- Humanities Requirement 3 credit hour(s)
- Foreign Language Elective 3-4 credit hour(s) (Choose from courses with the prefixes ARBC, FREN, GER, PORT, SPAN, except SPAN 2280)

Term 3

- Program Approved Elective 3 credit hour(s)
-
- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Laboratory Science Requirement 4 credit hour(s)
- Fine Arts Requirement 3 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 4

- SOC 2280 - Social Science Research 3 credit hour(s)
- Elective 3 credit hour(s) (Mathematics Recommended)
- Elective 3 credit hour(s) (Humanities Recommended)
- Elective 3 credit hour(s) (Fine Arts Recommended)
- Elective 3 credit hour(s) (Biological/Physical Science Recommended)
-

Associate of Arts in Sociology 62-64 credit hour(s)

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

Program Approved Electives

UNM transfer students should choose their CNM Sociology courses based on their intended emphasis in their sociology major at UNM. Choose from the following list of courses:

UNM Pre-Law Approved Electives

- SOC 2205 - Crime Public Policy and the Criminal Justice System 3 credit hour(s)
- SOC 2211 - Social Problems 3 credit hour(s)
- SOC 2213 - Deviant Behavior 3 credit hour(s)

UNM Human Services & Social Policy Approved Electives

- SOC 2211 - Social Problems 3 credit hour(s)
- SOC 2216 - Ethnic and Minority Groups 3 credit hour(s)
- SOC 2225 - Sociology of Family 3 credit hour(s)

Surgical Technology

Program Description

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 on 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. This program's first term courses are offered in the summer term only. This may delay a student's program start date. Please check with an academic advisor for more information. The program is accredited by the Commission on Accreditation of Allied Health Education Programs.

Special Requirements

New minimum clinical case requirement for program completion as indicated in the new 6th Edition of the Core

Curriculum of Surgical Technology

Required Program Courses: Must be completed before beginning the Surgical Technology core courses. 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.

Program Orientation: 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 provide a current telephone and mailing address through myCNM to insure proper notification of this meeting.

Criminal Background: Most of the health programs in HWPS require students undergo the New Mexico Department of Health caregivers criminal history screening program. This involves state and federal felony criminal background checks with fingerprints. This must be completed prior to starting their program or prior to beginning their clinical experiences. Students with a disqualifying conviction can appeal some of those convictions to the School of HWPS. Depending on the program, students may or may not be allowed to remain in the program pending appeal. Students who do not successfully appeal a disqualifying conviction will not be allowed to start or remain in the program. A successful appeal does not guarantee eligibility for licensure after graduation in professions that require licensure.

Drug Screen: In many HWPS programs students are required to undergo a routine drug screening prior to starting their program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

Surgical Technologists 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 throughout the state of New Mexico.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Surgical Technology, Certificate of Completion

Surgical Technology, Certificate of Completion

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- High School diploma or equivalent
- ENG 1101
- Math 2 Proficiency

Required Program Courses

- BIO 1310 - Human Anatomy and Physiology for Non-Majors 3 credit hour(s)

and

- BIO 1392 - Human Anatomy and Physiology for Non-Majors Laboratory 1 credit hour(s)

or

- BIO 2210 - Human Anatomy & Physiology I 3 credit hour(s)

and

- BIO 2292 - Human Anatomy and Physiology I Laboratory 1 credit hour(s)

and

- BIO 2310 - Human Anatomy and Physiology II 3 credit hour(s)

and

- BIO 2392 - Human Anatomy and Physiology II Laboratory 1 credit hour(s)

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)
- HIT 1020 - Medical Terminology and Anatomy 3 credit hour(s)
- ST 1001 - Introduction to Surgical Technology 2 credit hour(s)

Term 1 (Summer Only)

- This program's first term courses are offered in the summer term only. This may delay a student's program start date. Please check with an academic advisor for more information.
- HLTH 1001 - Clinical Preparation 1 credit hour(s)
- ST 1010 - Beginning Surgical Technology I 3 credit hour(s)
- ST 1092 - Surgical Technology Lab I 6 credit hour(s)

Term 2

- ST 1510 - Beginning Surgical Technology II 3 credit hour(s)
- ST 1590 - Surgical Technology Clinical I 8 credit hour(s)
- ST 1592 - Surgical Technology Lab II 2 credit hour(s)

Term 3

- ST 2010 - Surgical Technology III 3 credit hour(s)
- ST 2090 - Surgical Technology Clinical II 8 credit hour(s)
- ST 2092 - Surgical Technology Lab III 2 credit hour(s)

Certificate of Completion in Surgical Technology 48-52 credit hour(s)

Surveying Engineering

Program Description

Surveyors measure distances, direction and angles between points on, above and below the earth's surface. In the field, they select known survey reference points and determine the precise location of important features in the survey area using specialized equipment.

Surveyors also research legal records, look for evidence of previous boundaries, and analyze data to determine the location of boundary lines. They are sometimes called to provide expert testimony in court regarding their work or the work of other surveyors.

Surveyors also record their results, verify the accuracy of data, and prepare plots, maps, and reports using specialized software.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

The two-year Surveying Engineering program at CNM is designed to meet the requirements for an Associate of Science degree and prepare students to pursue of Bachelor of Science in Surveying Engineering at New Mexico State University or another institution.

Students should understand that the requirements for licensure as a Surveyor vary from state to state. Licensure in New Mexico requires a 4-year degree as well as other requirements.

Students should always refer to the catalog of their intended transfer institution for admission, program, course and graduation requirements. Students also should consult a faculty advisor and/or the CNM Academic Advising Center.

Also note that the math requirements in the CNM degree program are the absolute minimum. Students who are able should consider additional math courses.

Certificate and Degree Options

- Surveying Engineering, Associate of Science

Surveying Engineering, Associate of Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- MATH 1315
- Reading 2 Proficiency

Term 1

- MATH 1410 - Trigonometry 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- SUR 1001 - Introduction to Surveying Engineering 1 credit hour(s)
- CIS 1207 - Programming Logic and Design 3 credit hour(s)
- GIS 1001 - Introduction To GIS 3 credit hour(s)
- GIS 1006 - Land Information Systems 1 credit hour(s)

Term 2

- ENG 1101 - College Writing 3 credit hour(s)
- CAD 1001 - Basics Of CAD 1 credit hour(s)
- CM 2205 - Construction Surveying 3 credit hour(s)
- Humanities Requirement 3 credit hours
- MATH 1415 - Advanced Algebra 4 credit hour(s)
- Social/Behavioral Science Requirement 3 credit hour(s)

Term 3

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Humanities Requirement 3 credit hours
- GIS 1005 - CAD for GIS 3 credit hour(s)

- CIS 1275 - C++ Programming I 3 credit hour(s)

  or

- CIS 1250 - Python Programming I 3 credit hour(s) (Recommended for Students interested in Geographic Information Systems)

- MATH 1710 - Calculus I 4 credit hour(s)

Term 4

- ECON 2200 - Macroeconomics 3 credit hour(s)
- Laboratory Science Requirement 3 credit hour(s)
- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)
- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)
- SUR 1015 - Public Lands Survey System Boundaries 3 credit hour(s)
- SUR 1017 - Traffic Control and NSPS Survey Technician Certification Prep 2 credit hour(s)

Associate of Science Degree in Surveying Engineering 63 credit hour(s)

Teacher 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.

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.

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.

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 the Alternative Teacher Licensure for the recommended course sequence for each Alternative Teacher Licensure area.

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

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Teacher Education, Associate of Arts

Teacher Education, Associate of Arts

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency

- Math 2 Proficiency

or

- MATH 1310

- Reading 2 Proficiency

Concentrations

Career and Technical Education Concentration

Required Courses

- Biological/Physical Science Approved Electives 8 credit hour(s)

- COMM 1130 - Public Speaking 3 credit hour(s)

  or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or

- COMM 2270 - Communication Studies for Teachers 3 credit hour(s) (COMM 2270 Recommended)

- EDUC 1102 - Introduction to Teaching: Theory and Lab 4 credit hour(s) (FALL/SPRING)
- EDUC 2207 - Educational Psychology 3 credit hour(s)
- ENG 1101 - College Writing 3 credit hour(s)

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)

  or

- ENG 1119 - Technical Communications 3 credit hour(s)

- Fine Arts Approved Elective 3 credit hour(s)
- Humanities Approved Elective 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s) or higher
- Social/Behavioral Science Approved Elective 6 credit hour(s)
- Approved Technical Certificate/Associate of Applied Science Degrees 28+ credit hour(s)

Associate of Arts in Teacher Education, Career and Technical Concentration 70 credit hour(s)

Program Approved Electives

Biological/Physical Science Electives

Select From Two Different Subject Areas

- ASTR 1110 - Introduction to Astronomy II 3 credit hour(s)
- ASTR 1192 - Astronomy Lab 1 credit hour(s)
- BIO 1010 - Biology for Non-Majors 3 credit hour(s)
- BIO 1092 - Biology for Non-Majors Lab 1 credit hour(s)
- BIO 1110 - Environmental Science 3 credit hour(s)
- BIO 1192 - Environmental Science Laboratory 1 credit hour(s)
- BIO 1510/1592 - Molecular and Cell Biology w/Laboratory 4 credit hour(s)
- CHEM 1410 - Introduction to Chemistry 3 credit hour(s)
- CHEM 1492 - Introduction to Chemistry Laboratory 1 credit hour(s)
- CHEM 1710 - General Chemistry I 3 credit hour(s)
- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)
- PHYS 1510 - Physics I 4 credit hour(s)
- PHYS 1592 - Physics I Laboratory 1 credit hour(s)
- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)
- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)

Social/Behavioral Science Electives

Select From At Least Two Different Subject Areas

- ANTH 1101 - Intro Anthropology 3 credit hour(s)
- ANTH 1130 - Cultures of the World 3 credit hour(s)

- ECON 2200 - Macroeconomics 3 credit hour(s)
- ECON 2201 - Microeconomics 3 credit hour(s)
- PSCI 1110 - The Political World 3 credit hour(s)
- PSCI 2200 - U.S. Politics 3 credit hour(s)
- PSCI 2220 - Comparative Government and Politics 3 credit hour(s)
- PSCI 2240 - International Politics 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Humanities Electives

- Any HIST - History
- HUM 1111 - Cultures and Civilization Ancient to Renaissance 3 credit hour(s)
- HUM 1121 - Cultures and Civilization Renaissance to Present 3 credit hour(s)
- ENG 1150 - Study Of Literature 3 credit hour(s)
- ENG 2206 - Popular Literature: Detective Novel 3 credit hour(s)
- ENG 2207 - Popular Literature: Science Fiction 3 credit hour(s)
- ENG 2208 - Popular Literature: Espionage Fiction 3 credit hour(s)
- ENG 2209 - Popular Literature: Western 3 credit hour(s)
- ENG 2210 - Film as Literature 3 credit hour(s)
- ENG 2250 - Analysis of Literature 3 credit hour(s)
- ENG 2251 - Introduction to Dramatic Literature 3 credit hour(s)
- ENG 2252 - Introduction to Shakespeare 3 credit hour(s)
- ENG 2262 - Survey of Earlier World Literature 3 credit hour(s)
- ENG 2263 - Survey of Later World Literature 3 credit hour(s)
- ENG 2270 - Modern Literature 3 credit hour(s)
- ENG 2285 - Survey of Later English Literature 3 credit hour(s)
- ENG 2287 - Earlier American Literature 3 credit hour(s)
- ENG 2288 - Later American Literature 3 credit hour(s)
- PHIL 1102 - Ethics in Society 3 credit hour(s)
- PHIL 1110 - Introduction to Philosophical Thought 3 credit hour(s)
- PHIL 1156 - Logic and Critical Thinking 3 credit hour(s)
- PHIL 2245 - Business Ethics 3 credit hour(s)
- PHIL 2250 - Philosophy of Education 3 credit hour(s)
- PHIL 2257 - Formal Logic 3 credit hour(s)
- RLGN 1107 - Living World Religions 3 credit hour(s)
- RLGN 2263 - Eastern Religions 3 credit hour(s)

Fine Arts Electives

- ARTH 1101 - Introduction to Art 3 credit hour(s)
- ARTH 2201 - History Of Art I 3 credit hour(s)
- ARTH 2250 - Modern Art 3 credit hour(s)
- ARTH 2251 - Art of the American Southwest 3 credit hour(s)
- MUS 1139 - Early Music Appreciation 3 credit hour(s)
- MUS 1140 - Modern Music Appreciation 3 credit hour(s)
- THEA 1122 - Introduction to Theatre 3 credit hour(s)

Approved Technical Certificate/AAS Degrees

Students must see program director if certificate/degree is not included in this list as eligibility for degree is guided by teacher licensure regulations.

- Automotive Technology, Certificate of Completion
- Baking, Certificate of Completion
- Carpentry, Certificate of Completion
- Construction Management Technology, Associate of Applied Science
- Construction Technology, Associate of Applied Science
- Culinary Arts, Associate of Applied Science
- Electrical Trades, Certificate of Completion
- Electronics Technology, Certificate
- Hospitality and Tourism, Associate of Arts
- Hospitality and Tourism, Certificate of Completion
- Machine Tool Technology, Certificate of Completion
- Manufacturing Technology, Degree
- Manufacturing Technology, Certificate
- Mechanical Technology, Degree
- Metals Technology, Associate of Applied Science
- Photonics Technology, Degree
- Photonics Technology, Certificate
- Professional Cooking, Certificate
- Welding, Certificate of Completion

Bilingual Elementary, Elementary, and Special Education Concentrations

Recommended Sequence of Courses

Term 1

- Concentration Course Requirement 3-5 credit hour(s)
- EDUC 2265 - Computers in Schools 3 credit hour(s)
  or
- IT 1010 - Introduction to Computers 3 credit hour(s) (EDUC 2265 Recommended for Transfer)
- ENG 1101 - College Writing 3 credit hour(s)
- HIST 1101 - Western Civilization I 3 credit hour(s)
  or
- HIST 1102 - Western Civilization II 3 credit hour(s)
  or
- HIST 1161 - History of the United States I 3 credit hour(s)
  or
- HIST 1162 - History of the United States II 3 credit hour(s)

Term 2

- Concentration Course Requirement (Bilingual Concentration Only) 3-4 credit hour(s)
- EDUC 2204 - Child Development 3 credit hour(s)
  or
- EDUC 2207 - Educational Psychology 3 credit hour(s)
- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- HIST 1101 - Western Civilization I 3 credit hour(s)
  or
- HIST 1102 - Western Civilization II 3 credit hour(s)
  or
- HIST 1161 - History of the United States I 3 credit hour(s)
  or
- HIST 1162 - History of the United States II 3 credit hour(s)
- MATH 1110 - Mathematics for Elementary School Teachers I 3 credit hour(s)

Term 3

- ARTH 1101 - Introduction to Art 3 credit hour(s)
  or
- ARTH 2201 - History Of Art I 3 credit hour(s)
  or
- ARTH 2202 - History Of Art II 3 credit hour(s)
- MATH 1115 - Mathematics for Elementary School Teachers II 3 credit hour(s)
  or
- MATH 1315 - College Algebra 3 credit hour(s) or higher
- HIST 1101 - Western Civilization I 3 credit hour(s)

or

- HIST 1102 - Western Civilization II 3 credit hour(s)

or

- HIST 1161 - History of the United States I 3 credit hour(s)

or

- HIST 1162 - History of the United States II 3 credit hour(s)
-
- Laboratory Science Requirement 4 credit hour(s)

Term 4

- Concentration Course Requirement 3-5 credit hour(s)

- COMM 1130 - Public Speaking 3 credit hour(s)

or

- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

or

- COMM 2270 - Communication Studies for Teachers 3 credit hour(s) (Recommended)

- MUS 1139 - Early Music Appreciation 3 credit hour(s)

or

- MUS 1140 - Modern Music Appreciation 3 credit hour(s)

or

- THEA 1122 - Introduction to Theatre 3 credit hour(s)

- Social/Behavioral Science Approved Elective 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)

Term 5

- Concentration Course Requirement (Bilingual Concentration Only) 3-4 credit hour(s)
- HIST 2260 - History of New Mexico 3 credit hour(s)
- Social/Behavioral Science Approved Elective 3 credit hour(s)
- Laboratory Science Requirement 4 credit hour(s)

Associate of Arts in Teacher Education, Bilingual, Elementary, Special Education Concentration 64-72 credit hour(s)

Concentration Course Requirements

Bilingual Elementary Concentration Course Requirements

- ANTH 1110 - Language Culture and the Human Animal 3 credit hour(s)
- EDUC 1102 - Introduction to Teaching: Theory and Lab 4 credit hour(s) (FALL/SPRING)
- SPAN 1101 - Beginning Spanish 4 credit hour(s) or higher
- SPAN 1102 - Beginning Spanish II 4 credit hour(s) or higher

Elementary Concentration Course Requirements

- EDUC 1102 - Introduction to Teaching: Theory and Lab 4 credit hour(s) (FALL/SPRING)
- Social/Behavioral Science Approved Elective 3 credit hour(s)

Special Education Concentration Course Requirements

- Social/Behavioral Science Approved Elective 3 credit hour(s)
- SPED 2201 - Education of the Exceptional Person 3 credit hour(s) (FALL/SPRING)
- SPED 2290 - Introduction to Special Education 2 credit hour(s) (FALL/SPRING)

Program Approved Electives

Social/Behavioral Science Electives - Teacher Education

Select From At Least Two Different Subject Areas

- ANTH 1101 - Intro Anthropology 3 credit hour(s)

- ANTH 1130 - Cultures of the World 3 credit hour(s)
- ECON 2200 - Macroeconomics 3 credit hour(s)
- ECON 2201 - Microeconomics 3 credit hour(s)
- PSCI 1110 - The Political World 3 credit hour(s)
- PSCI 2200 - U.S. Politics 3 credit hour(s)
- PSCI 2220 - Comparative Government and Politics 3 credit hour(s)
- PSCI 2240 - International Politics 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

Secondary Concentration

Recommended Sequence of Courses

Term 1

- EDUC 2265 - Computers in Schools 3 credit hour(s) (Recommended for Transfer)

  or
- IT 1010 - Introduction to Computers 3 credit hour(s)

- ENG 1101 - College Writing 3 credit hour(s)

- HIST 1101 - Western Civilization I 3 credit hour(s)

  or
- HIST 1102 - Western Civilization II 3 credit hour(s)

  or
- HIST 1161 - History of the United States I 3 credit hour(s)

  or
- HIST 1162 - History of the United States II 3 credit hour(s)

- MATH 1315 - College Algebra 3 credit hour(s) or higher
- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 2

- EDUC 2204 - Child Development 3 credit hour(s)

  or
- EDUC 2207 - Educational Psychology 3 credit hour(s)

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)

- HIST 1101 - Western Civilization I 3 credit hour(s)

  or
- HIST 1102 - Western Civilization II 3 credit hour(s)

  or
- HIST 1161 - History of the United States I 3 credit hour(s)

  or
- HIST 1162 - History of the United States II 3 credit hour(s)

- Biological/Physical Science Approved Elective 4 credit hour(s)

Term 3

- ARTH 1101 - Introduction to Art 3 credit hour(s)

  or
- ARTH 2201 - History Of Art I 3 credit hour(s)

  or
- ARTH 2202 - History Of Art II 3 credit hour(s)

- EDUC 1102 - Introduction to Teaching: Theory and Lab 4 credit hour(s) (FALL/SPRING)

- HIST 1101 - Western Civilization I 3 credit hour(s)

  or
- HIST 1102 - Western Civilization II 3 credit hour(s)

  or
- HIST 1161 - History of the United States I 3 credit hour(s)

  or
- HIST 1162 - History of the United States II 3 credit hour(s)

- Biological/Physical Science Approved Elective 4 credit hour(s)
- Social/Behavioral Science Approved Elective 3 credit hour(s)

Term 4

- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

  or
- COMM 2270 - Communication Studies for Teachers 3 credit hour(s) (Recommended)

- MUS 1139 - Early Music Appreciation 3 credit hour(s)

  or
- MUS 1140 - Modern Music Appreciation 3 credit hour(s)

  or
- THEA 1122 - Introduction to Theatre 3 credit hour(s)

- Social/Behavioral Science Approved Elective 3 credit hour(s)
- HIST 2260 - History of New Mexico 3 credit hour(s)
- Biological/Physical Science Apprived Elective 4 credit hour(s)

Associate of Arts in Teacher Education, Secondary Concentration 61 credit hour(s)

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.

Program Approved Electives

Biological/Physical Science Electives (Must Be From Three Different Subject Areas)

- ASTR 1110 - Introduction to Astronomy II 3 credit hour(s)
- ASTR 1192 - Astronomy Lab 1 credit hour(s)
- BIO 1010 - Biology for Non-Majors 3 credit hour(s)
- BIO 1092 - Biology for Non-Majors Lab 1 credit hour(s)

- BIO 1110 - Environmental Science 3 credit hour(s)
- BIO 1192 - Environmental Science Laboratory 1 credit hour(s)

  or
- BIO 1310 - Human Anatomy and Physiology for Non-Majors 3 credit hour(s)
- BIO 1392 - Human Anatomy and Physiology for Non-Majors Laboratory 1 credit hour(s) (Recommended for Physical Education only)

- EPS 1101 - Introduction to Geology 3 credit hour(s)
- EPS 1192 - Introduction to Geology Laboratory 1 credit hour(s)
- GEOG 1101 - Physical Geography 3 credit hour(s)
- GEOG 1192 - Physical Geography Lab 1 credit hour(s)

ELECTIVES BELOW HIGHLY RECOMMENDED FOR THOSE INTERESTED IN TEACHING MATH OR SCIENCE

- BIO 1510/1592 - Molecular and Cell Biology w/Laboratory 4 credit hour(s)

- CHEM 1410 - Introduction to Chemistry 3 credit hour(s)
- CHEM 1492 - Introduction to Chemistry Laboratory 1 credit hour(s)

or

- CHEM 1710 - General Chemistry I 3 credit hour(s)
- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)

- PHYS 1510 - Physics I 4 credit hour(s)
- PHYS 1592 - Physics I Laboratory 1 credit hour(s)

or

- PHYS 1710 - Physics for Scientists and Engineers I 4 credit hour(s)
- PHYS 1792 - Physics for Scientists and Engineers I Laboratory 1 credit hour(s)

Social/Behavioral Science Electives (Select From At Least Two Different Subject Areas)

- ANTH 1101 - Intro Anthropology 3 credit hour(s)
- ANTH 1130 - Cultures of the World 3 credit hour(s)
- ECON 2200 - Macroeconomics 3 credit hour(s)
- ECON 2201 - Microeconomics 3 credit hour(s)
- PSCI 1110 - The Political World 3 credit hour(s)
- PSCI 2200 - U.S. Politics 3 credit hour(s)
- PSCI 2220 - Comparative Government and Politics 3 credit hour(s)
- PSCI 2240 - International Politics 3 credit hour(s)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)
- SOC 1101 - Introduction To Sociology 3 credit hour(s)

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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Technology Management and Training, Associate of Arts

Technology Management and Training, Associate of Arts

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Department Approval Program
- English 2 Proficiency
- MATH 1310
- Reading 2 Proficiency

Term 1

- ENG 1101 - College Writing 3 credit hour(s)
- MATH 1315 - College Algebra 3 credit hour(s) or higher

- ECON 2200 - Macroeconomics 3 credit hour(s)

  or
- ECON 2201 - Microeconomics 3 credit hour(s)

- SOC 1101 - Introduction To Sociology 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 2

- ENG 1102 - Analytic and Argumentative Writing 3 credit hour(s)
- MATH (higher than MATH 1315) 3 credit hour(s)

- Laboratory Science 4 credit hour(s)

  or
- ANTH 1150 - Evolutionary Anthropology 3 credit hour(s)

- PSY 1105 - Introduction to Psychology 3 credit hour(s)

Term 3

- Foreign Language Elective 3 credit hour(s)

- Laboratory Science 3 credit hour(s)

  or
- ANTH 1150 - Evolutionary Anthropology 3 credit hour(s)

- COMM 1130 - Public Speaking 3 credit hour(s)

  or
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s)

- Humanities Elective 3 credit hour(s)

Term 4

- Humanities Elective 3 credit hour(s)

- ENG 2219 - Technical Writing 3 credit hour(s)

  or

- PHIL 1156 - Logic and Critical Thinking 3 credit hour(s)

- BA 1101 - Introduction to Business 3 credit hour(s)
- Fine Arts Elective 3 credit hour(s)

Associate of Arts in Technology Management and Training 82 credit hour(s)

Including the 30 technical credits required from associate's degree

Transportation 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Transportation Technology, Associate of Applied Science

Transportation Technology, Associate of Applied Science

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Concentrations

- Automotive Technology Concentration

Term 1

- AUTC 1110 - Introduction to Automotive Systems 4 credit hour(s)
- AUTC 1120 - Brake Systems 4 credit hour(s)
- AUTC 1130 - Suspension and Alignment 4 credit hour(s)
- AUTC 1140 - Automotive Electrical 4 credit hour(s)

Term 2

- AUTC 1210 - Manual Transmissions 4 credit hour(s)
- AUTC 1220 - Engine Repair 4 credit hour(s)
- AUTC 1230 - Automatic Transmissions 4 credit hour(s)
- AUTC 1240 - Automotive Electronics 4 credit hour(s)

Term 3

- AUTC 2111 - Air Conditioning and Heating 3 credit hour(s)
- AUTC 2120 - Engine Performance I 4 credit hour(s)
- AUTC 2130 - Engine Performance II 4 credit hour(s)
- AUTC 2198 - Automotive Internship 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 4

- ENG 1101 - College Writing 3 credit hour(s)
- Program Approved Requirement 6-9 credit hour(s)

Term 5

- AUTC 2999 - Transportation Technology Capstone 1 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s) or higher
- Humanities/Fine Arts Requirement 3 credit hour(s)

  or
- Social/Behavioral Science Requirement 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Diesel Equipment Technology Concentration

Term 1

- DETC 1110 - Introduction to Diesel Technology 4 credit hour(s)
- DETC 1120 - Heavy Duty Brake Systems 4 credit hour(s)
- DETC 1130 - Heavy Duty Suspension and Steering 4 credit hour(s)
- DETC 1150 - Diesel Equipment Electrical Systems 4 credit hour(s)

Term 2

- DETC 1210 - Heavy Duty Engine Repair 4 credit hour(s)
- DETC 1220 - Automatic Transmissions and Hydraulics 4 credit hour(s)
- DETC 1230 - Medium/Heavy Duty Air Conditioning and Heating 3 credit hour(s)
- DETC 1240 - Diesel Equipment Electronic Systems 4 credit hour(s)

Term 3

- DETC 1140 - Manual Shift Transmissions and Axles 4 credit hour(s)
- DETC 2110 - Preventive Maintenance 4 credit hour(s)
- DETC 2120 - Diesel Engine Performance 4 credit hour(s)
- DETC 2198 - Diesel Equipment Internship 1 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)

Term 4

- ENG 1101 - College Writing 3 credit hour(s)
- Program Approved Requirement 6-9 credit hour(s)

Term 5

- AUTC 2999 - Transportation Technology Capstone 1 credit hour(s)
- COMM 2221 - Interpersonal Communication Studies 3 credit hour(s) or higher
- Humanities/Fine Arts Requirement 3 credit hour(s)

  or
- Social/Behavioral Science Requirement 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher

Associate of Applied Science Degree in Transportation Technology, Concentrations in Automotive or Diesel Equipment Technology 66-70 credit hour(s)

Program Approved Requirements

Students must complete all courses in one of the following options.

Class B CDL Skills

- TRDR 1105 - Class B Basic Operational Theory 6 credit hour(s)
- TRDR 1692 - Class B Operational Lab 3 credit hour(s)

Welding Skills

- AUTC 2250 - Transportation Alternative Fuels 2 credit hour(s)
- OSH 2016 - Occupational Safety I 1 credit hour(s)
- WELD 1062 - Welding Fundamentals 3 credit hour(s)

Truck Driving

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.

Note: Lab Courses are held at off-campus locations. Please see the Schedule of Classes.

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 or Lawful Permanent Residency)
- 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

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Class B CDL, Certificate of Achievement
- Truck Driving, Certificate of Achievement

Class B CDL, Certificate of Achievement

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- High School Diploma or Equivalent
- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- TRDR 1105 - Class B Basic Operational Theory 6 credit hour(s)

  or
- TRDR 1102 - Basic Operational Theory 8 credit hour(s)

- TRDR 1692 - Class B Operational Lab 3 credit hour(s)

Certificate of Achievement in Class B CDL 9-11 credit hour(s)

Truck Driving, Certificate of Achievement

Recommended Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- English 1 Proficiency
- Math 1 Proficiency
- Reading 1 Proficiency

Term 1

- TRDR 1102 - Basic Operational Theory 8 credit hour(s)
- TRDR 1293 - Class A Basic Operational Lab 3 credit hour(s)
- TRDR 1392 - Class A Advanced Operational Practices 2 credit hour(s)

Certificate of Achievement in Truck Driving 13 credit hour(s)

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) Council on Education (COE) and Committee on Veterinary Technician Education and Activities (CVTEA) nationally accredits the Program.

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Special Requirements

Students must complete an application process administered through the Coordinated Program Entry Office and be selected to enter this program.

Immunizations: All health programs require that students provide documentation of current immunizations completed before beginning clinical courses.

Physical Requirements: Students must be in good physical and psychological health. Students may be asked to provide documentation of a recent physical examination. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. 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 School of Health, Wellness & Public Safety (HWPS) Office for more information.

Program Fees: Program fees cover costs incurred on behalf of the student for student-issued equipment, background checks, drug screens, initial treatment/counseling in the event of a needle stick or exposure to bodily fluids, etc.

Transportation: Students are responsible for their own transportation to off-campus training sites (i.e. clinical courses at hospitals, internships, etc.).

Career and Educational Opportunities

Gainful Employment information is available from Job Connection Services.

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 Program Exit Competencies) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to the Graduating From CNM section, cnm.edu or the Students tab in my CNM.

Certificate and Degree Options

- Veterinary Technology, Associate of Applied Science

Veterinary Technology, Associate of Applied Science

Required Sequence of Courses

Program Proficiencies and/or Prerequisites

Students must demonstrate proficiency in these areas either by placement scores or specific course work.

- Coordinated Entry Program
- English 2 Proficiency
- Math 2 Proficiency
- Reading 2 Proficiency

Required Program Courses

- BIO 1410 - Biology for Health Sciences 3 credit hour(s)

  and
- BIO 1492 - Biology for Health Sciences Laboratory 1 credit hour(s)

  or
- BIO 1510/1592 - Molecular and Cell Biology w/Laboratory 4 credit hour(s)

- CHEM 1410 - Introduction to Chemistry 3 credit hour(s)

  and
- CHEM 1492 - Introduction to Chemistry Laboratory 1 credit hour(s)

  or
- CHEM 1710 - General Chemistry I 3 credit hour(s)

  and
- CHEM 1792 - General Chemistry I Lab 1 credit hour(s)

- ENG 1101 - College Writing 3 credit hour(s)
- IT 1010 - Introduction to Computers 3 credit hour(s)
- MATH 1210 - Methods of Problem Solving 4 credit hour(s) or higher (except MATH 2110 and MATH 2096) (MATH 1315 Recommend if planning on transferring to a 4-year degree)
- PSY 1105 - Introduction to Psychology 3 credit hour(s)

Term 1 (Fall Only)

This program's first term courses are offered in the fall term only. This may delay a student's program start date.

Please check with an academic advisor for more information.

- Program Approved Elective 1-2 credit hour(s)
- VT 1004 - Veterinary Medical Terminology 1 credit hour(s)
- VT 1006 - Veterinary Office Skills 1 credit hour(s)
- VT 1008 - Applied Mathematics for Veterinary Technicians 1 credit hour(s)
- VT 1010 - Introduction to Veterinary Technology 2 credit hour(s)
- VT 1012 - Introduction to Animal Care 2 credit hour(s)
- VT 1070 - Animal Comparative Anatomy and Physiology I 3 credit hour(s)

Term 2

- VT 1210 - Animal Comparative Anatomy and Physiology II 3 credit hour(s)
- VT 1251 - Radiology for Veterinary Technicians Lecture 1 theory credit hour(s)
- VT 1252 - Radiology for Veterinary Technicians Laboratory 1 lab credit hour(s)
- VT 1272 - Surgical Technology for Veterinary Technicians 2 credit hour(s)
- VT 1292 - Veterinary Office Skills Lab 1 credit hour(s)

Term 3

- VT 2010 - Clinical Pathology for Veterinary Technicians I 4 credit hour(s)
- VT 2015 - Non-Infectious and Infectious Diseases for Veterinary Technicians 3 credit hour(s)
- VT 2180 - Veterinary Technology Clinical I 4 credit hour(s)

Term 4

- VT 2610 - Clinical Pathology for Veterinary Technicians II 4 credit hour(s)
- VT 2651 - Anesthesiology for Veterinary Technicians Lecture 2 theory credit hour(s)
- VT 2652 - Anesthesiology For Veterinary Technicians Lab 1 lab credit hour(s)
- VT 2674 - Applied Therapeutics and Care for Veterinary Technicians I 3 credit hour(s)
- VT 2690 - Veterinary Technology Clinical II 4 credit hour(s)

Term 5

- VT 2803 - Pharmacology for Veterinary Technicians 3 credit hour(s)
- VT 2810 - Veterinary Technology Clinical III 5 credit hour(s)
- VT 2884 - Applied Therapeutic II Avian Laboratory Exotic and Large Animals 4 credit hour(s)
- VT 2892 - Dentistry for Veterinary Technicians 1 credit hour(s)

Associate of Applied Science in Veterinary Technology 77-79 credit hour(s)

Program Approved Electives

- VT 1001 - Animal Science Terminology 1 theory credit hour(s)
- VT 1003 - Preparation for Professional Success 1 theory credit hour(s)
- VT 1192 - Supplemental Lab for Veterinary Technology (CR/NC) 1 credit hour(s)
- VT 2592 - Advanced Supplemental Lab for Veterinary Technology (CR/NC) 1 credit hour(s)

Course Descriptions

Accounting

ACCT 1096-1996 - Special Topics

1-6 credit hour(s) (Prerequisites: ACCT 1111 and ACCT 1112 and ACCT 1210; or department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ACCT 1109 - Business Math

3 credit hour(s) (Recommended prerequisite: MATH 0930 or appropriate placement scores. This course is a prerequisite for ACCT 1112 and a pre- or co-requisite for ACCT 1110)

Applies basic arithmetic operations to business applications and accounting.

ACCT 1110 - Accounting I

6 credit hour(s) (Recommended Prerequisites: MATH 0930 + RDG 0950 or appropriate placement scores) (Pre- or corequisite: ACCT 1109 or MATH 1315)

This course is offered via distance learning only. 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 or ACCT 1112).
Note(s)
ACCT 1111 + ACCT 1112 are equivalent to this course.

ACCT 1111 - Accounting IA

3 credit hour(s) (Recommended prerequisites: MATH 0930 + RDG 0950 or appropriate placement scores)

Students analyze and record business transactions, implement accrual basis accounting and prepare basic financial statements. ACCT 1111 + ACCT 1112 are equivalent to ACCT 1110.
Note(s)
Note: Students going on to ACCT 1112 should take ACCT 1109 concurrently with ACCT 1111.

ACCT 1112 - Accounting IB

3 credit hour(s) (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 + 1112 are equivalent to ACCT 1110.

ACCT 1120 - Payroll Accounting

3 credit hour(s) (Recommended prerequisite: ACCT 1111 or ACCT 1110) (Pre- or corequisite: IT 1010)

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 credit hour(s) (Prerequisites: ACCT 1109 + IT 1010 + [ACCT 1112 or ACCT 1110] or department approval) (Pre- or corequisite: ENG 1101 or BA 1121)

Simulates the complete accounting process using practice sets to expand skills in the performance of accounting functions.

ACCT 1210 - Accounting II

3 credit hour(s) Prerequisites: (ACCT 1109 + ACCT 1110 + IT 1010) or (ACCT 1109 + ACCT 1111 + 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 1301 - Volunteer Tax Preparation

2 credit hour(s) 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 credit hour(s)

(Prerequisites: 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. A minimum of 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 the certification exam.

ACCT 1398 - Volunteer Tax Internship

1 credit hour(s)

(Pre- or Corequisite: ACCT 1301)

Students apply current tax code to prepare individual tax returns for low-income and elderly taxpayers. A minimum of 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 the certification exam.

Offered spring term.

ACCT 1410 - Quickbooks Complete

3 credit hour(s) (Recommended prerequisite: ACCT 1111)

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. This course replaces ACCT 1411 + ACCT 1412 + ACCT 1413.
Note(s)
30 theory + 45 lab hours

ACCT 2095 - Cooperative Education

3 credit hour(s) (Prerequisites: ACCT 1140 + department approval)

Provides students the opportunity to work a minimum of 135 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 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisites: ACCT 1111 and ACCT

1112 and ACCT 1210 or division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ACCT 2097 - Independent Study

1-8 credit hour(s) (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

3 credit hour(s) (Prerequisite: ACCT 1140 + department approval)

Provides students the opportunity to work a minimum of 135 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 credit hour(s) (Prerequisite: ACCT 1140 or department approval) (Pre- or corequisite: ENG 1101 + MATH 1210)

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 with regard to assets.

ACCT 2102 - Intermediate Accounting IB

3 credit hour(s) (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 credit hour(s) (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 2230 - Cost Management Accounting

3 credit hour(s) (Prerequisites:(ACCT 1210 + CIS 1173) or (ACCT 1210 + Department Approval)

Expands the student's ability to use job order and process costing systems as well as the student's ability to apply and analyze accounting information for decision making in planning and controlling business activities. This includes the collecting of cost information, cost estimation and allocation, standard costs, budgeting and cost-volume-profit relationships.

ACCT 2340 - Tax Accounting

3 credit hour(s) (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 credit hour(s)

(Prerequisite: ACCT 1110 or ACCT 1111 or department approval)

(Recommended Prerequisite: ACCT 2340)

Covers fundamental characteristics of income taxes for corporations, partnerships, sub-chapter S corporations and fiduciaries.

ACCT 2420 - Computerized Accounting

3 credit hour(s) (Prerequisite: ACCT 1140 or division approval)

Employs integrated accounting software for payroll, inventory control, accounts payable, accounts receivable and general ledger functions. Course reviews the accounting cycle.
Note(s)
30 theory + 45 lab hours

ACCT 2510 - Governmental Accounting

3 credit hour(s) (Prerequisite: ACCT 1140 or ACCT 2101 or department approval)

Examines fund accounting for governmental entities.

ACCT 2520 - Auditing

3 credit hour(s) (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.

ACCT 2999 - Capstone Course

1 credit hour(s)

(Prerequisite: (ACCT 2101 + ACCT 2340 + ACCT 2420) or (ACCT 2101 + ACCT 2420 + ACCT 1301 + ACCT 1398)

Focuses on assessment of student learning outcomes for the Accounting program of study. Students graduating under catalogs prior to Fall 2011 should take this course in lieu of BA 2999. (Should be taken in student's last term)

African American Studies

AFST 1150 - Introduction to African American Studies

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of African Americans.

Air Conditioning, Heating & Refrigeration

ACHR 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

(all courses ending in 96 are special topics) See *Schedule of Classes*.

ACHR 2096-2996 - Special Topics

1-7 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ACHR 2297 - Independent Study

1-7 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

Air Force Aerospace Studies

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 credit hour(s) (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 credit hour(s) (Corequisite: AFAS 1292 + concurrent enrollment in leadership laboratory required for cadet status)

Provides an introduction to the USAF, including an overview of basic characteristics, missions and organization of the USAF. Meets once weekly. Spring only.

AFAS 1192 - Leadership Laboratory I

1 credit hour(s) 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 credit hour(s) Continues course of study begun in AFAS 1120/AFAS 1192. Graded CR/NC. Enrollment in the laboratory is required with AFAS 1121 course. Spring only.

AFAS 2192 - Leadership Laboratory 3

1 credit hour(s) 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 2229 - Field Training Fitness Prep

1 credit hour(s) (Pre- or corequisite: AFAS 1192 or AFAS 1292)

Prepares cadets for leadership through various methods of military fitness training. Course instills Air Force physical fitness standards and provides training in all aspects of health, including physical fitness, nutritional awareness, stress management, and other aspects of health. Requires lab activities in the fitness center.

AFAS 2250 - The Evolution of USAF Air and Space Power I

1 credit hour(s) (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 for 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 credit hour(s) (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 credit hour(s) Continues course of study begun in AFAS 2250/AFAS 2192. Graded CR/NC. Enrollment in the laboratory is required with AFAS 2251. Spring only.

Anthropology

ANTH 1101 - Intro Anthropology

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Surveys the breadth of anthropology, including archaeology, biological anthropology, cultural anthropology and linguistic anthropology.

ANTH 1110 - Language Culture and the Human Animal

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) Prerequisite: RDG 0950 or appropriate placement scores

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 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ANTH 2209 - Anthropology Practicum

Variable credit hour(s) Prequisite: Permission of Instructor

Provides opportunities for students in anthropology practice by working with professionals conducting theoretical, laboratory, and/or field research in cultural, linguistic, physical/biological anthropology and archaeology.

ANTH 2222 - Ancient Mesoamerica

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 2251 - Forensic Anthropology

3 credit hour(s)

Prerequisite: RDG 0950 or appropriate placement scores

Recommended: ANTH 1150

Examines human skeletal anatomy in detail, with special emphasis on the characteristics relevant to forensic scientists. Introduces the processes and issues surrounding the discovery and identification of human skeletal remains (including human rights issues).

ANTH 2255 - Southwestern Archaeology

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Presents interpretations and dynamics of Southwestern archaeology from the time of the earliest inhabitants until European contact.

ANTH 2265 - The Anthropology of Drugs

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 political economy of world trade in both licit and illicit drugs.

Arabic

ARBC 1101 - Beginning Arabic I

4 credit hour(s) Prerequisite: RDG 0950 or appropriate placement scores

Introduces listening, speaking, writing, grammatical skills and cultural understanding for students with no previous exposure to Arabic.

ARBC 1102 - Beginning Arabic II

4 credit hour(s) Prerequiste: ARBC 1101 or department approval

Continues course of study begun in Arabic I: listening, speaking, writing, grammatical skills and cultural understanding.

ARBC 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

Architectural Drafting

ARDR 1010 - CAD Analysis I

2 credit hour(s) (Pre- or corequisite: CAD 1001)

Applies the usage of CAD to Architectural/Engineering drafting. (20 theory + 30 lab hours per term)

Note(s)
20 theory + 30 lab hours

ARDR 1101 - Building Materials and Methods I

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Studies construction system, 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)
Note(s)
30 theory + 45 lab hours

ARDR 1105 - Architectural Drafting I

4 credit hour(s)

(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. (15 theory + 135 lab hours per term)
Note(s)
Students must provide their own drafting kits.

15 theory + 135 lab hours

ARDR 1110 - Architectural Mathematics

3 credit hour(s) (Prerequisite: MATH 0930 or appropriate placement scores, 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)
Note(s)
30 theory + 45 lab hours

ARDR 1201 - Building Materials and Methods II

3 credit hour(s) (Prerequisites: 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)
Note(s)
30 theory + 45 lab hours

ARDR 1205 - Architectural CAD II

7 credit hour(s) (Prerequisite: ARDR 1105) (Pre- or corequisite: ARDR 1201 + ARDR 1220)

Applies computer-aided drafting, including 3D modeling, to the production of architectural design development drawings using industry standard graphic, dimensioning and notation systems. (45 theory + 180 lab hours per term)
Note(s)
(45 theory + 180 lab hours per term)

ARDR 1220 - CAD Analysis II

3 credit hour(s) (Pre- or corequisite: ARDR 1205 or department approval)

Applies current software applications, including 3D modeling, to the production of A/E construction drawings.
Note(s)

30 theory hours

45 lab hours

ARDR 1306 - Architectural CAD III

4 credit hour(s) (Prerequisite: ARDR 1105). (Pre- or corequisite: ARDR 1320).

Applies computer-aided drafting to the production of architectural design development drawings using industry standard graphic, dimensioning and notation systems.
Note(s)
(15 theory hours +135 lab hours per term)

ARDR 1320 - CAD Analysis III

3 credit hour(s) (Prerequisite: ARDR 1010 or department approval) (Pre- or corequisite: ARDR 1306 or department approval)

Applies current software applications to the production of A/E construction drawings.
Note(s)

30 theory hours

45 lab hours

ARDR 1492 - Architectural Design

2 credit hour(s) (Pre- or corequisite: ARDR 1105)

Presents design principles, theories, methods and process. Facilitates learning through student- designed project.
Note(s)
(75 lab hours per term)

ARDR 2096-2996 - Special Topics

1-7 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ARDR 2105 - Structural Systems CAD

4 credit hour(s) (Prerequisite: ARDR 1205 + ARDR 1306.) (Corequisite: ARDR 2110 + ARDR 2120)

Develops standard structural engineering drawings in steel, concrete, and/or wood structural systems.
Note(s)
(15 theory hours + 135 lab hours per term)

ARDR 2110 - Structural Systems Analysis

3 credit hour(s) (Corequisite: ARDR 2105)

Introduces structural design and graphics in wood, steel and concrete, and elementary beam design problems.
Note(s)
(30 theory + 45 lab hours per term)

ARDR 2120 - Structural Systems Software Applications

2 credit hour(s) (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.
Note(s)
(15 theory + 60 lab hours per term)

ARDR 2192 - Site Analysis

2 credit hour(s) (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.
Note(s)
(75 lab hours per term)

ARDR 2205 - Mechanical/Electrical/Plumbing Systems CAD

4 credit hour(s) (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.
Note(s)
(15 theory hours + 135 lab hours per term)

ARDR 2210 - Mechanical/Electrical Systems Analysis

3 credit hour(s) (Corequisite: ARDR 2205)

Studies general theory and layout information and code requirements for non-residential systems. Includes lighting, plumbing and air conditioning.
Note(s)
(30 theory + 45 lab hours per term)

ARDR 2220 - Mechanical/Electrical/Plumbing Systems Software Applications

2 credit hour(s) (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.
Note(s)
(15 theory + 60 lab hours per term)

ARDR 2295 - Cooperative Education

3 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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

1 credit hour(s) (Prerequisite: Department approval).

Focuses on assessment of exit competencies for program of study. Students prepare documents and practice skills necessary for a job search. This class should be taken in student's last term.
Note(s)
(30 lab hours per term).

Art History

ARTH 1101 - Introduction to Art

3 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores)

Presents fundamental concepts of visual arts - the language of form and media of artistic expression. Possible museum exhibition attendance.

ARTH 2096-2996 - Special Topics

3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ARTH 2200 - Women In Art

3 credit hour(s) Prerequisites: RDG 0950 + ENG 0950; or appropriate placement scores)

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 or art.

ARTH 2201 - History Of Art I

3 credit hour(s) Prerequisites: RDG 0950 + ENG 0950; or appropriate placement scores)

Surveys Near Eastern, Egyptian, Greek, Roman, early Christian, Byzantine, early Medieval, Romanesque and Gothic art and architecture. Fall and summer only.

ARTH 2202 - History Of Art II

3 credit hour(s) Prerequisites: RDG 0950 + ENG 0950; or appropriate placement scores)

Surveys Italian and Northern Renaissance, Baroque, Rocco and 19th century Western European painting, sculpture and architecture. Spring and summer only.

ARTH 2250 - Modern Art

3 credit hour(s) Prerequisites: RDG 0950 + ENG 0950; or appropriate placement scores)

Surveys major figures, movements, and stylistic developments in Western art from 1850 to the present.

ARTH 2251 - Art of the American Southwest

3 credit hour(s) Prerequisites: RDG 0950 + ENG 0950; or appropriate placement scores)

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 credit hour(s) Prerequisites: RDG 0950 + ENG 0950; or appropriate placement scores)

Surveys the history of Western architecture from the pyramid to the post-modernist house; technological, stylistic and functional characteristics of monuments within their cultural contexts.

Art Studio

ARTS 1102 - Introduction to Studio Arts

3 credit hour(s) Prerequisite: RDG 0950 or appropriate placement scores

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 credit hour(s) Prerequisite: RDG 0950 or appropriate placement scores

Provides direct experience in exploring basic drawing concepts. Introduces the fundamentals of drawing, including 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 credit hour(s) Prerequisite: RDG 0950 or appropriate placement scores

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 credit hour(s) (Prerequisite: RDG 0950 + ARTS 1106 or appropriate placement scores)

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 1125 - Art Practices I

3 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950)

This is an interdisciplinary course, exploring the processes, ideas and diverse media of visual arts. The course addresses the thematic concepts that are central to the nature of art making today. Students will investigate issues of LIGHT, FRAME, and MARK while developing an understanding of the elements and principles of design.

ARTS 1126 - Art Practices II

3 credit hour(s) (Prerequisites: RDG 0950 + ENG 0950 + ARTS 1121 or ARTS 1125)

This is an interdisciplinary course, exploring the processes, ideas and diverse media of visual arts. The course addresses the thematic concepts that are central to the nature of art making today. Students will investigate issues of MOTIVE and CHANGE while developing concepts, techniques, and processes involved in working in the third dimension.

ARTS 1168 - Ceramics I

3 credit hour(s) (Prerequisite: ARTS 1122 or ARTS 1126)

This is an introductory course in Ceramics with emphases on both hand-built construction and wheel-throwing techniques. Design aesthetics will focus on the creative development of clay objects examining cultural, historical, and personal modes of expression. Glazing and kiln firing processes will be introduced. Health and safety procedures will be emphasized.

ARTS 2096-2996 - Special Topics

3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ARTS 2204 - Life Drawing I

3 credit hour(s) Prerequisites: RDG 0950 or appropriate placement scores + ARTS 1106

Continues descriptive and perceptual drawing skills building of 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 the use and study of models.

ARTS 2205 - Drawing II

3 credit hour(s) (Prerequisite: ARTS 1106)

Continues course of study initiated in ARTS 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 credit hour(s) (Prerequisites: RDG 0950 + ARTS 1106 + ARTS 1121 or ARTS 1125 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 + ARTS 1106 + ARTS 1121 or ARTS 1125 or appropriate placement scores)

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 credit hour(s) (Prerequisites: RDG 0950 + ARTS 1122 or ARTS 1126 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 + ARTS 1106 or appropriate placement scores)

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 2212 - Aspects of Painting, Drawing & Multimedia

3 credit hour(s) (Pre- or corequisite: ARTS 2205 or ARTS 2207)

Aspects of Painting and Drawing is an intermediate studio course providing direct experience in the development of a connected series of artworks through the use of varied media. Emphasis will be placed on solving problems through thematic development of artworks, while building on fundamental skills learned in Drawing and/or Painting.

ARTS 2214 - Life Drawing II

3 credit hour(s)

(Prerequisite: RDG 0950 + ARTS 1106 or appropriate placement scores)

(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 credit hour(s) (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 credit hour(s) (Prerequisite: RDG 0950 + ARTS 2207 or appropriate placement scores)

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.

Asian American Studies

AAST 1150 - Introduction to Asian American Studies

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of Asian Americans.

Astronomy

ASTR 1010 - Introduction to Astronomy I

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

ASTR 1110 - Introduction to Astronomy II

3 credit hour(s) (Prerequisite: RDG 0950 + MATH 0940; or appropriate placement scores)

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 Lab

1 credit hour(s) (Pre- or corequisite: ASTR 1110)

Investigates in optional laboratory setting the principles discussed in ASTR 1110.
Note(s)
45 lab hours

ASTR 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

Automotive Technology

AUTC 1110 - Introduction to Automotive Systems

4 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 + MATH 0750 or appropriate placement scores 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 hours/90 lab hours)

AUTC 1120 - Brake Systems

4 credit hour(s) (Pre- or corequisites: 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 credit hour(s) (Pre- or corequisites: AUTC 1110 + AUTC 1140; 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)

AUTC 1140 - Automotive Electrical

4 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 + MATH 0750 or appropriate placement scores or department approval)

Presents critical skills necessary for identifying and correcting problems found in automotive electrical/ electronic systems. Included 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 credit hour(s) (Pre- or corequisites: 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 credit hour(s) (Prerequisites: AUTC 1110.) (Pre- or corequisites: 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 credit hour(s) (Prerequisites: AUTC 1110.) (Pre- or corequisites: 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 credit hour(s) (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 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

AUTC 2111 - Air Conditioning and Heating

3 credit hour(s) (Prerequisite: AUTC 1240; 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.
Note(s)
(15 theory + 75 lab hours per term).

AUTC 2120 - Engine Performance I

4 credit hour(s) (Prerequisite: AUTC 1240 or department approval)

Provides the information for basic test and repairs on computer controlled automotive drive trains. It 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 and knowledge contained in the ASE/NATEF engine performance program standards. (30 theory + 75 lab hours per term)

AUTC 2130 - Engine Performance II

4 credit hour(s) (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 an overview of hybrid systems. It provides further advanced mastery of ASE/NATEF engine performance program standards. (30 theory + 90 lab hours per term)

AUTC 2197 - Independent Study

1-6 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

AUTC 2198 - Automotive Internship

1 credit hour(s) (Pre- or corequisite: AUTC 2130; or department approval).

Students will identify an automotive repair facility, apply for an internship position, and complete a forty hour (one work week) internship. Provides real world shop experience during the students last term in the certificate program.
Note(s)
(45 Lab Hours per term).

AUTC 2250 - Transportation Alternative Fuels

2 credit hour(s) (Prerequisite: RDG 0750 + MATH 0750).

Presents the history, present practices, political issues, and future of alternative fuels for the transportation industry. Includes discussions and hands-on demonstrations of hybrid, CNG/propane, electric, hydrogen (fuel cell), and biodiesel technologies. May include guest speakers from local industries.
Note(s)
(30 Theory/0 Lab Hours).

AUTC 2999 - Transportation Technology Capstone

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).
Note(s)
(15 Theory/0 Lab Hours).

Aviation Maintenance

AVMT 1240 - Aircraft Forms, Regulations, Publications and Mathematics

4 credit hour(s) (Recommended prerequisites: ENG 0950 + RDG 0950 + MATH 0940 or appropriate placement scores)

Provides overview of technician's privileges and limitations. Includes familiarization with FAA forms and records. Presents mathematical computations of fundamental electrical circuit parameters. Includes drawings, symbols and schematic diagrams.
Note(s)
(45 theory hours/45 lab hours)

AVMT 1260 - Basic Electricity I and Aircraft Weight and Balance

4 credit hour(s) (Recommended prerequisites: ENG 0950 + RDG 0950 + MATH 0940 or appropriate placement scores) (Pre- or corequisites: AVMT 1240 or department approval)

Includes basic definitions, laws and concepts. Includes schematic, wiring and parts placement diagrams. The student will 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.
Note(s)
(30 theory hours/90 lab hours)

AVMT 1270 - Basic Electricity II, Materials and Processes and Cleaning and Corrosion Control

4 credit hour(s) (Recommended prerequisites: ENG 0950 + RDG 0950 + MATH 0940 or appropriate placement scores) (Pre- or corequisite: AVMT 1240 + AVMT 1260 or department approval)

Includes practical application of reading schematics, wiring diagrams along with parts placement diagrams, testing and troubleshooting electrical and electronic components and circuits. Also presents materials and processes as they relate to aircraft materials and tool usage.
Note(s)
(30 theory hours/90 lab hours)

AVMT 1280 - Aviation Physics, Aircraft drawings, Ground Operations and Servicing, Fluid Lines and Fittings and Corrosion Control

5 credit hour(s) (Recommended prerequisites: ENG 0950 + RDG 0950 + MATH 0940 or appropriate placement scores) (Pre- or corequisite: 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.
Note(s)
(60 theory hours/45 lab hours)

AVMT 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
all courses ending in 96 are special topics

AVMT 2097 - Independent Study

1-6 credit hour(s) (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.

AVMT 2220 - Aircraft Wood Structures, Covering, Finishing and Bonded Structures

5 credit hour(s)

(Pre- or corequisite: AVMT 1280 + department approval)

Presents theories and techniques of aircraft wood structures. Presents inspection, test and repair of aircraft fabric and wood structures. Presents aircraft structural design and methods of working with selected materials. Characteristics of composites, inspections and repairs.

Note(s)
(45 theory hours/90 lab hours)

AVMT 2225 - Atmosphere Control Fire Detection Ice and Rain Protection Systems

5 credit hour(s) (Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270) (Pre- or corequisite: AVMT 1280 or permission of program director)

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.
Note(s)
(75 theory hours/15 lab hours)

AVMT 2230 - Aircraft Sheet Metal

4 credit hour(s) (Prerequisites: 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.
Note(s)
(30 theory hours/90 lab hours)

AVMT 2236 - Aircraft Landing Gear Hydraulic Pneumatic and Fuel Systems

4 credit hour(s) (Prerequisites: AVMT 1280 or department approval)

Presents identification, inspection, repair and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic systems.
Note(s)

45 theory hours

45 lab hours

AVMT 2240 - Aircraft Electrical Systems

3 credit hour(s) (Prerequisites: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280 or department approval)

Presents proper operation, inspection, servicing and troubleshooting of DC (Direct Current) generator, and DC alternator, AC (Alternating Current) alternator, voltage

regulator, reverse current relay, generator and alternator protection devices. Also includes solenoids and relays.
Note(s)
(30 theory hours/45 lab hours)

AVMT 2243 - Aircraft Instruments Position and Warning and Communication and Navigation Systems

5 credit hour(s) (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.
Note(s)
(60 theory hours/45 lab hours)

AVMT 2245 - Airframe Assembly Rigging and Welding

5 credit hour(s) (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.
Note(s)
(60 theory hours/45 lab hours)

AVMT 2250 - Reciprocating Engines

4 credit hour(s) (Pre- or corequisite: AVMT 1280 or department approval).

Presents historical development and application of reciprocating engines. Includes the theory of internal combustion, design and environmental factors, which influence propulsion. Covers reciprocating engine troubleshooting, inspection, service, repair and overhaul. Covers operational characteristics and engine test techniques on the aircraft and in test cells.

AVMT 2260 - Aircraft Turbine Engines I

6 credit hour(s) (Prerequisites: AVMT 1240, AVMT 1260, AVMT 1270, AVMT 1280 or permission of program director.) (Pre- or corequisite(s): AVMT 2262)

Presents historical development and application of turbine engines along with the theory of thrust. Includes the design and environmental factors which influences 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 credit hour(s) (Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280 or department approval) (Pre- or corequisite: AVMT 2260)

Presents the tear down, inspection and rebuilding 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.
Note(s)
(30 theory hours/90 lab hours)

AVMT 2265 - Engine Fuel and Metering Systems

6 credit hour(s) (Prerequisites: 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.
Note(s)
(75 theory hours/45 lab hours)

AVMT 2270 - Engine Electrical Systems

4 credit hour(s) (Prerequisites AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280 or department approval)

Presents the inspection, service, troubleshooting, overhaul and repair of engine electrical systems and components.
Note(s)
(45 theory hours/45 lab hours)

AVMT 2275 - Engine Instruments Cooling Exhaust Ignition and Starting Systems

5 credit hour(s) (Prerequisites AVMT 1240, AVMT 1260, AVMT 1270, AVMT 1280 or permission of program director.)

Presents 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.
Note(s)
(60 theory hours/45 lab hours)

AVMT 2280 - Propeller Systems, Engine Inspections and Test and Review

5 credit hour(s) (Prerequisites: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280 + AVMT 2250 + AVMT 2393 + AVMT 2260 + AVMT 2262 + AVMT 2265) (Pre- or corequisites: AVMT 2270 + 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.
Note(s)
(60 theory hours/45 lab hours)

AVMT 2292 - Airframe Inspection and Test and Review

2 credit hour(s) (Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280 + AVMT 2220 + AVMT 2225 + AVMT 2230 + AVMT 2236 + AVMT 2240) (Pre- or corequisite: AVMT 2243 + AVMT 2245 + department approval)

Presents aircraft airframe inspection techniques and 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 allows extra course time to satisfy FAA time rules.
Note(s)

90 lab hours

AVMT 2393 - Reciprocating Engines Lab

3 credit hour(s) (Prerequisite: AVMT 1280 or department approval) (Pre- or corequisite: AVMT 2250)

Applies the practical application of the tear down, inspection and rebuild of aircraft reciprocating engines. Also includes troubleshooting, inspection, service, repair and overhaul procedures.
Note(s)

135 lab hours

Basic Patient Care Skills

BPCS 1010 - Basic Patient Care Skills

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0950 or appropriate placement scores + department approval)

Introduces students to the principles of providing basic patient care including communication, patient safety and medical asepsis. Laboratory hours provide instruction and supervised practice of personal care skills, body mechanics, turning and transferring patients, vital signs, measuring and recording intake and output, restorative care. Demonstration of competency in all skills will be required at completion of course.
Note(s)

15 theory hours

45 lab hours

Biology

BIO 1010 - Biology for Non-Majors

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores.)

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 Lab

1 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores.) (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.
Note(s)
45 lab hours

BIO 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

BIO 1110 - Environmental Science

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score.)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores) (Pre- or Corequisite: BIO 1110)

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.
Note(s)
45 lab hours

BIO 1310 - Human Anatomy and Physiology for Non-Majors

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores

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 credit hour(s) (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.
Note(s)
45 lab hours

BIO 1410 - Biology for Health Sciences

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores) (Recommended prerequisite: CHEM 1410)

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 credit hour(s) (Prerequisite: MATH 0930 or appropriate placement scores). (Pre- or corequisite: BIO 1410).

Introduces exercises and demonstrations related to cell biology, biochemical processes and genetics. (45 lab hours per term)
Note(s)
45 lab hours

BIO 1510/1592 - Molecular and Cell Biology w/Laboratory

4 credit hour(s) (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.
Note(s)
45 theory + 45 lab hours

BIO 1610/1692 - Genetics w/Laboratory

4 credit hour(s) (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.
Note(s)
45 theory + 45 lab hours

BIO 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are topics courses)

BIO 2110 - Microbiology

3 credit hour(s) (Prerequisites: [BIO 1410 + BIO 1492 or BIO 1510/1592] + CHEM 1410 or CHEM 1710 or appropriate placement scores) (Recommended corequisite: BIO 2192).

Introduces concepts of microbiology, host-parasite relationships, infection and immunity.

BIO 2192 - Microbiology Laboratory

1 credit hour(s) (Prerequisites: BIO 1410/BIO 1492 or pre- or corequisite of BIO 1610/1692; CHEM 1410/CHEM 1492 or CHEM 1710/CHEM 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.
Note(s)
45 lab hours

BIO 2210 - Human Anatomy & Physiology I

3 credit hour(s) (Prerequisites: BIO 1410 + BIO 1492 or BIO 1510/1592 + CHEM 1410 or CHEM 1710 or appropriate placement scores) (Recommended 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 credit hour(s) (Prerequisites: BIO 1410/BIO 1492 or pre- or corequisite of BIO 1610/1692; CHEM 1410/CHEM 1492 or CHEM 1710/CHEM 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 2110, including specimen dissection and cadaver study.
Note(s)
45 lab hours

BIO 2310 - Human Anatomy and Physiology II

3 credit hour(s) (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 credit hour(s) (Prerequisites: BIO 2292) (Pre- or corequisite: BIO 2310)

Provides lab exercises in anatomy and physiology, which complement BIO 2210, including specimen dissection and cadaver study.
Note(s)
45 lab hours

BIO 2410/2492 - Ecology & Evolution w/Laboratory

4 credit hour(s) (Prerequisite: BIO 1510/1592 + 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.
Note(s)
45 theory + 45 lab hours

BIO 2510/2592 - Plant & Animal Form and Function w/ Laboratory

4 credit hour(s) (Prerequisite: BIO 1510/1592 + 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.
Note(s)
45 theory + 45 lab hours

BIO 2710 - Pathophysiology I

3 credit hour(s) (Prerequisites: BIO 2110, BIO 2310, BIO 2210 and 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 credit hour(s) (Prerequisite: BIO 2710)

Continues course of study begun in BIO 2710, covering pathology of cardiovascular, pulmonary, gastrointestinal, urinary and endocrine systems.

Biotechnology

BIOT 1005 - Math For Biot Lab

3 credit hour(s) 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 Biotechnolgy

2 credit hour(s) 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 1210/1270 - Biotechnology Laboratory Techniques I

4 credit hour(s) (Prerequisites: 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)

BIOT 1211 - Biotechnology Seminar II

1 credit hour(s) (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.

BIOT 1510/1570 - Biotechnology Laboratory Techniques II

5 credit hour(s) Prerequisite: BIOT 1210/1270, Pre- or corequisites: 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.

BIOT 1512 - Biotechnology Seminr III

1 credit hour(s) (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 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

BIOT 2098 - Internship

8 credit hour(s) Prerequisite: BIOT 2410/2470 + 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.
Note(s)
315 Internship hours + 45 lab hours

BIOT 2410/2470 - Biotechnology Laboratory Techniques III

5 credit hour(s) Prerequisite: BIOT 1510/1570, Corequisite: BIOT 2413 + BIOT 2475

Applies concepts and techniques begun in BIOT 1510/1570 to the characterization of proteins. Techniques include protein isolation, polyacrylamide gel electrophoresis, isoectric focusing, 2-D gel analysis, ELISAs, recombinant protein purification and column chromatography. Students will also prepare for a cumulative final exam.

BIOT 2413 - Biotechnology Seminar IV

1 credit hour(s) 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 credit hour(s) 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.
Note(s)
30 theory + 45 lab hours

BIOT 2810 - Biotechnology Seminar

2 credit hour(s) (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.

Business Administration

BA 1015 - Introduction to Internet Commerce

1 credit hour(s) Introduces E-Commerce business models and payment systems. Internet operation and concept including domain naming, ISP, ASP, FTP, e-mail, routing, bandwidth and security are presented.

BA 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

BA 1101 - Introduction to Business

3 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores 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.

BA 1103 - Introduction to International Business

3 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores 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 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores 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 credit hour(s) (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 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores.)

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 credit hour(s) (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 credit hour(s) (Prerequisite: RDG 0750 + ENG 0750 or appropriate placement scores 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 skills and presentation skills.

BA 1133 - Principles of Management

3 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores or department approval)

Presents concepts and theories of quality improvement. 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 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores; 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 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores; 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 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores; or department approval)

Focuses on the personal and financial planning process with an emphasis on record keeping.

BA 1166 - Personal Investment Management

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement score; or department approval)

Presents the basics of investment, securities markets, stocks and bonds, mutual funds, and other alternatives of investments. Risks associated with each and sources of investment information are discussed.

BA 1167 - Retirement Investment

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores)

Focuses on retirement and estate planning.

BA 2095 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Provides an opportunity for a structured educational (paid) work experience related to a student's academic goals. Cooperative Education is a partnership between the student and both the educational institution and the employer, with specific responsibilities for each party. Requires a minimum of 135 hours and must involve a new learning experience.

BA 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

BA 2097 - Independent Study

1-8 credit hour(s) (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

3 credit hour(s) (Prerequisite: department approval)

Provides an opportunity for a structured (unpaid) work experience related to a student's academic goals. The internship is a partnership between the student and both the educational institution and the employer, with specific responsibilities for each party. Requires a minimum of 135 hours and must involve a new learning experience.

BA 2103 - Entrepreneurship and Business Plan Development

6 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores or department approval)

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 2104 - Entrepreneurship in a Global Setting

3 credit hour(s) (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores; 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 the entrepreneurial ventures are covered.

BA 2120 - Financing an Import/Export Business

1 credit hour(s) (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 credit hour(s) (Prerequisite: BA 1101 or BA 1103 or department approval)

Focuses on importing terminology, importing Incoterms (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 credit hour(s) (Prerequisite: BA 1101 or BA 1103 or department approval)

Focuses on exporting terminology, exporting Incoterms (standard trade definitions), flow of exporting documents, customs broker assistance with exporting issues, exporting quality control, currency, ethics and environment for exporters, trade shows and property rights.

BA 2153 - Team Building for Quality

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement score; or department approval)

Focuses on differentiating between team work and group work, specific situations when team work 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 team work, understanding and managing phases in team development, recognizing and managing obstacles to team success.

BA 2154 - Re-Engineering for Quality

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement score; 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 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement score; or department approval)

Presents the urgent need for leadership in today's businesses, communities and families; focuses on understanding the differences 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 2156 - Fundamentals of Lean Management

1 credit hour(s) (Prerequisites: RDG 0750 or appropriate placement scores or department approval)

Introduces basic principles and tools of lean manufacturing and service delivery and focuses on practical and profitable management. Methods to maximize operational effectiveness accelerate cycle time, reduce inventory and increase reliability and responsiveness to customers are examined.

BA 2196 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

BA 2220 - Web Marketing

3 credit hour(s) (Recommended prerequisite: BA 1115)

Focuses on how to plan, 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 credit hour(s) (Prerequisite: BA 1101 or BA 1103 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 credit hour(s) (Prerequisites: BA 1101 and BA 1121 or department approval)

Introduces the methods, policies and organization involved in the exchange of goods and services between producers and consumers. Topics include the 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 2226 - Sales

3 credit hour(s) (Prerequisite: 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 - Promotion Strategies

3 credit hour(s) (Prerequisite: BA 1101 or BA 1105 or department approval)

Presents an overview of the advertising and promotion industry as a creative process and a business. The course provides the student with a broad knowledge of promotions as a career. Students will evaluate media strategy, and will plan and analyze an integrated marketing communication (IMC) campaign. The advertising code of ethics will be discussed and presented.

BA 2230 - Customer Relations

3 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores)

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 credit hour(s) (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 credit hour(s) (Prerequisites: 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 2236 - Retail Management

3 credit hour(s) (Prerequisite: BA 1101 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 credit hour(s) (Prerequisites: 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 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores or department approval.)

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 2244 - Legal Issues in E-Commerce

3 credit hour(s) (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 credit hour(s) Focuses on the fiduciary relationship between real estate agent and client, ownership rights, law of agency and law of contracts. This 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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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.

BA 2274 - Real Estate Investment

3 credit hour(s) (Recommended Prerequisites: BA 2270 and 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 credit hour(s) (Recommended Prerequisites: BA 2270 + BA 2271)

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 credit hour(s) 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 credit hour(s) (Prerequisite: 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 credit hour(s) (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 credit hour(s) (Prerequisites: 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 study the competing values and interests involved in ethical situations, and to develop a framework and strategy to make practical decisions.

BA 2282 - Leadership and Group Dynamics

3 credit hour(s) (Prerequisite:BA 1131 or BA 2234; or BA 1121 or ENG 1101; or department approval)

Focuses on the development of leadership skills. Course is designed to provide basic steps in leadership and group dynamics to help individuals develop a personal philosophy of leadership of the moral and ethical responsibility of leadership.

BA 2284 - Strategic Management

3 credit hour(s) (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 credit hour(s) (Prerequisites: departmental approval)

Focuses on assessment of student learning outcomes for program of study. (Taken in student's last term)

Carpentry

CARP 1005 - Carpentry Blueprint Reading I

4 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores, or department approval)

Covers lumber sizing, scaling, centering and triangle theory, interpretation of elevation drawings, floor plans, symbols, notations, dimensions and structural information.

CARP 1030 - Carpentry Theory 1

3 credit hour(s) (Prerequisite: ENG 0750 or appropriate placement scores) (Pre- or corequisite CARP 1005 or department approval).

Introduces students to the construction trade and explains floor framing systems, wall, ceiling, stair, and roof framing and the installation of exterior doors and windows.

CARP 1320 - Carpentry Fundamentals

3 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores)

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 hours/90 lab hours)

CARP 1325 - Construction Trades Blueprint Reading

3 credit hour(s) 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 1392 - Construction Lab A

5 credit hour(s) Provides beginning carpentry students practical hands on learning by taking advantage of building opportunities on an off campus. (0 theory hours/225 lab hours)

CARP 1492 - Construction Lab B

5 credit hour(s) Provides advanced carpentry students practical hands on learning by taking advantage of building opportunities on an off campus. (0 theory hours/225 lab hours)

CARP 1592 - Furniture Making

2 credit hour(s) (Prerequisites: CARP 1320 + MATH 0750 + RDG 0750)

Covers fundamental design and construction of simple furniture including safety and use of hand and power tools. Includes designing and constructing a furniture project. (0 theory hours/90 lab hours)

CARP 1692 - Advanced Furniture Making

2 credit hour(s) (Prerequisites: CARP 1320 + MATH 0750 + RDG 0750)

Covers advanced design and construction of simple furniture including safety and use of hand and power tools. Includes designing and constructing a furniture project. (0 theory hours/90 lab hours)

CARP 1792 - Cabinetmaking

2 credit hour(s) (Prerequisites: CARP 1320 + MATH 0750 + RDG 0750)

Fundamentals of cabinet construction. Emphasis is on safety and use of tools. European construction is emphasized. (0 theory hours/90 lab hours)

CARP 1892 - Spanish Colonial Furniture Making

2 credit hour(s) (Prerequisite: CARP 1320)

Students will learn basic joinery, hand carving and popular colonial furniture making techniques common to Spanish colonial furniture; includes designing and constructing a furniture project.
Note(s)

90 lab hours

CARP 2005 - Carpentry Blueprint Reading II

4 credit hour(s) (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 2030 - Carpentry Theory 2

3 credit hour(s) (Recommended prerequisite: CARP 1030 or department approval). (Pre- or corequisite: CARP 1005).

Introduces common materials and methods used for exterior and interior finish, moisture protection, exterior wall coverings, drywall and interior doors, trim and cabinet installation.
Note(s)
(Theory)

CARP 2096-2996 - Special Topics

1-7 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CARP 2130 - Metal Stud Framing

2 credit hour(s) (Pre- or corequisite: CARP 2030 + CARP 2005 or department approval).

Introduces common materials and methods used in metal framing and commercial carpentry. Provides practical, hands-on, experience erecting and installing metal stud framing.
Note(s)
(15 hours Theory + 45 Lab per term)

CARP 2230 - Concrete Forming and Rigging

2 credit hour(s) (Pre- or corequisite: CARP 2030 + CARP 2005 or department approval)

Introduces common materials and methods used for forming and placing concrete including rigging and lifting techniques used in a commercial setting. (15 theory hours/45 lab hours)

CARP 2997 - Independent Study

1-7 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

CARP 2999 - Carpentry Capstone Course

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

Chemistry

CHEM 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

CHEM 1410 - Introduction to Chemistry

3 credit hour(s) (Prerequisite: RDG 0950 + MATH 0930; or appropriate placement scores). (Recommended 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 credit hour(s) (Pre- or corequisite: CHEM 1410)

Introduces experiments complementing CHEM 1410.
Note(s)
45 lab hours

CHEM 1710 - General Chemistry I

3 credit hour(s) (Prerequisite: RDG 0950 + MATH 1310 or appropriate placement scores). (Recommended 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 credit hour(s) (Prerequisite: RDG 0950 + MATH 1310;

or appropriate placement scores.) (Pre- or corequisite: CHEM 1710)

A three-hour per week laboratory class containing experiments complementing the CHEM 1710 lecture class.
Note(s)
45 lab hours

CHEM 1810 - General Chemistry II

3 credit hour(s) (Prerequisite: CHEM 1710 within the past 3 years + CHEM 1792 within the past 3 years + MATH 1315). (Recommended 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 credit hour(s) (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.
Note(s)
45 lab hours

CHEM 2096-2996 - Special Topics

1-3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CHEM 2210 - Organic Chemistry and Biochemistry

4 credit hour(s) (Prerequisite: CHEM 1410/CHEM 1492 or CHEM 1710/CHEM 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 credit hour(s) (Prerequisite: CHEM 1810/CHEM 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 credit hour(s) (Pre- or corequisite: CHEM 2710)

A three-hour per week laboratory class containing experiments complementing the CHEM 2710 lecture class.
Note(s)
45 lab hours

CHEM 2810 - Organic Chemistry II

3 credit hour(s) (Prerequisite: CHEM 2710 + CHEM 2792)

Organic spectroscopic analysis. The chemistry or 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 credit hour(s) (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.
Note(s)
45 lab hours

Chicano Studies

CHMS 1150 - Introduction to Chicano Studies

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of Mexican Americans.

Child Development

CDV 1020 - 45 Hour Entry-Level Course

3 credit hour(s) 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. The course 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 1101 - Parents and Young Children

3 credit hour(s) Examines interactions of parents and children and diverse family configurations throughout the life cycle.

CDV 1103 - Preschool Growth and Development

3 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores)

Examines the cognitive, physical and social/emotional development of the preschool child. Requires observations in appropriate settings.

CDV 1107 - Art And Play

3 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores)

Focuses on the importance of play and art in the development of children. Introduces basic analysis techniques.

CDV 1890 - Family Studies Practicum I

2 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores)

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.
Note(s)
60 hours

CDV 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CDV 2201 - Middle Childhood Growth and Development

3 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate scores)

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 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores)

Examines the development and communication patterns of adolescents within the family setting.

CDV 2203 - Introduction to Addiction Counseling

2 credit hour(s) (Prerequisite: RDG 0750 + ENG 0750 or appropriate placement scores)

Introduces substance abuse counseling. Explores the functions and competencies of substance abuse counselors, how counseling is affected by attitudes and beliefs regarding alcohol and drug use/abuse.

CDV 2204 - Professional Issues in Substance Abuse Treatment

2 credit hour(s) (Prerequisite: RDG 0750 + ENG 0750 or appropriate placement scores)

Introduces legal, ethical, and professional issues in substance abuse treatment.

CDV 2205 - Adolescent Substance Abuse: Prevention and Treatment

2 credit hour(s) (Prerequisite: RDG 0750 + ENG 0750 or appropriate placement scores)

Explores the differences between adolescent and adult substance use/abuse and evidence-based approaches for prevention and treatment. Considers the impact of relationships with parenting style and parental substance abuse.

CDV 2210 - Introduction to Social Work

3 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950) (Corequisite: CDV 2890)

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 credit hour(s) (Prerequisite: department approval)

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 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores)

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 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750; or appropriate placement scores)

Provides insights into contemporary marriage and family situations. Focus on decision-making for better understanding of families and the broader society.

CDV 2297 - Independent Study

1-3 credit hour(s) (Prerequisite: department approval)

Defines and studies a specific problem while working with the instructor.

CDV 2890 - CYFD Practicum

2 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores)
(Corequisite: CDV 2210)

Provides practical experiences in approval social work and/or closely related settings.
Note(s)

45 hours

1 theory hour

1 lab hour

Clinical Lab Assistant

CLA 1012 - Basic Clinical Laboratory Theory

4 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950 or appropriate placement scores + HLTH 1001 + PHLB 1010 + PHLB 1090 + PHLB 1092) (Corequisite: MLT 1007 + CLA 1092 + CLA 1590)

Introduces principles and methodology of physical, chemical, and microscopic analysis of urine as well as basic theories and methodology related to hematology, coagulation, clinical chemistry, immunology, and clinical microbiology.

CLA 1092 - Basic Clinical Laboratory Techniques

1 credit hour(s) (Corequisite: MLT 1007, CLA 1012, CLA 1590)

Students will view demonstrations of laboratory techniques and interactively participate in activities related to urinalysis, hematology, coagulation, clinical chemistry, immunology, and clinical microbiology laboratory procedures and practices.
Note(s)
(45 lab hours per term)

CLA 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CLA 1590 - Clinical Experience

3 credit hour(s) (Corequisites: MLT 1007 + CLA 1012 + CLA 1092)

Provides practical experience in chemistry, hematology, microbiology and urinalysis procedures in hospital and clinic medical laboratories.
Note(s)
135 clinical hours

College Success Experience

CSE 0450 - Career Options

2 credit hour(s) Introduces students to major/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 credit hour(s) (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 will 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.

CSE 1010 - Online Success

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement score)

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.
Note(s)
15 theory + 5 lab hours

CSE 1101 - College Success

3 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores)

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.
Note(s)
45 theory + 15 lab hours

CSE 1120 - Career Exploration

1 credit hour(s) (Pre- or corequisite: RDG 0950 or appropriate placement scores)

This course is designed to assist students through their career exploration and decision- making processes. Four major self-assessment areas will be explored -- personal styles/characteristics, interests, values and skills for self-understanding. The course helps students chart their academic and career course through the creation of an action plan. Students will learn how to choose a career, or occupational possibility related to a major. Students will also explore how internships, cooperative work experiences and service learning can help with career decision-making.

CSE 1140 - Learning Strategies

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores)

This course is designed to enable students to develop and enhance academic and personal skills in: critical thinking, critical reading, problem solving, improving memory, learning strategies, and balancing school, home and work. Students will learn effective ways to study systematically, to prepare for examinations, and to apply academic skills across curricula.

CSE 1160 - Research Techniques

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores)

This course focuses on accessing, retrieving and critically evaluating information from various formats. Introduces students to research techniques for both electronic databases and traditional resources.

CSE 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

Commercial Carpentry Apprenticeship

CCAP 1115 - Commercial Carpentry Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 1325 - Commercial Carpentry Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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.

Communication

COMM 1101 - Introduction to Communication

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Focuses on principles and concepts of different studies of human communication. Introduces the concepts and principles of mass media, public speaking, interpersonal, small group and organizational communication. This course will be conducted in a lecture-discussion format.

COMM 1110 - Mass Media and Society

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 2096-2996 - Special Topics

1-3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent, recommended prerequisite: ENG 1101 or Accuplacer Sentence Skills score of 110 and COMM 2221)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

COMM 2221 - Interpersonal Communication Studies

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)

Emphasizes developing, organizing and supporting ideas in interpersonal business encounters, groups, teams, meetings, interviews and platform presentations.

COMM 2240 - Organizational Communication

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG

1101)

Focuses on communication networks, power and authority, manager/employee relationships, leadership and interviewing in organizational contexts.

COMM 2268 - Media Theories

3 credit hour(s)

(Prerequisite: RDG 0950 or appropriate placement scores)

(Recommended Prerequisite: ENG 1101)

Introduces students to a variety of media theories and models, including content analysis, the effects tradition, and sociological, historical, critical, and cultural perspectives. Focuses on the key issues in media theory, including the nature of mass media, influences on human behavior, and the media as reflector and creator of society.

COMM 2270 - Communication Studies for Teachers

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)

Introduces systems approach to class room communication at any level, providing a means to analyze, develop and facilitate effective communication.

COMM 2280 - Gender Communication Studies

3 credit hour(s)

(Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s)

(Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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.

Computer Assisted Drafting

CAD 1001 - Basics Of CAD

1 credit hour(s) (Pre- or corequisite: IT 1010)

Introduces the fundamentals of computer aided drafting. (10 theory + 15 lab hours per term)
Note(s)

10 theory hours

15 lab hours

CAD 1003 - CAD for Landscaping

1 credit hour(s) (Recommended Prerequisite: IT 1010 + CAD 1001)

Introduces the application of computer aided drafting for Landscaping Architecture. (10 theory + 15 lab hours per term)
Note(s)
10 theory + 15 lab hours

Computer Information Systems

CIS 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CIS 1120 - Microsoft Word

3 credit hour(s) (Prerequisite: IT 1010 or department approval)

Focuses on word processing using Microsoft Word for Windows with emphasis on functions and practical office applications.
Note(s)
30 theory + 45 lab hours

CIS 1125 - Word Fundamentals

1 credit hour(s) (Recommended prerequisite: CIS 1130)

Focuses on creating, editing, enhancing and merging documents.
Note(s)
10 theory + 15 lab hours

CIS 1130 - Windows

1 credit hour(s) Explores basic elements of Windows with emphasis on software functions.
Note(s)
(10 theory + 15 lab hours per term).

CIS 1145 - Microsoft Powerpoint

2 credit hour(s) (Recommended prerequisites: IT 1010)

Provides hands-on experience in graphics presentation software, which emphasizes charting, drawing, organizing and displaying text and images.
Note(s)
20 theory + 30 lab hours

CIS 1150 - MS Outlook

1 credit hour(s) (Recommended prerequisite: CIS 1130)

Covers concepts such as managing messages,

appointments, contacts and tasks, as well as tracking activities.
Note(s)
10 theory + 15 lab hours

CIS 1170 - Excel Fundamentals

1 credit hour(s) (Prerequisite: IT 1010 or department approval)

Stresses concepts such as creating, editing and enhancing worksheets, formatting cells, basic formulas and charts.
Note(s)
10 theory + 15 lab hours

CIS 1173 - Excel Complete

3 credit hour(s) (Prerequisite: IT 1010 or department approval)

Covers Excel software from creating and editing spreadsheets to advanced data analysis tools. This course may substitute for CIS 1170.

CIS 1183 - Access Complete

3 credit hour(s) (Prerequisite: IT 1010 or department approval)

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 credit hour(s) (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.
Note(s)
10 theory + 15 lab hours

CIS 1207 - Programming Logic and Design

3 credit hour(s) (Prerequisites: RDG 0950 + MATH 0940; or appropriate placement scores.) (Pre- or corequisite: IT 1010)

This course introduces students to the fundamentals of computer programming, including programming concepts, enforcing good style and logical thinking. 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.
Note(s)
30 theory + 45 lab hours

CIS 1210 - JavaScript I

3 credit hour(s) (Prerequisites: MATH 0940 + RDG 0950 or appropriate placement scores)

This course introduces students to the fundamentals of computer programming, including programming concepts, enforcing good style and logical thinking. 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.
Note(s)

30 theory hours

45 lab hours

CIS 1250 - Python Programming I

3 credit hour(s) (Pre- or corequisite: IT 1010 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 use 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.
Note(s)
30 theory + 45 lab hours

CIS 1275 - C++ Programming I

3 credit hour(s) (Pre- or corequisite: MATH 1310 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.
Note(s)
30 theory + 45 lab hours

CIS 1280 - .Net I/C#

3 credit hour(s) (Prerequisite: CIS 1275 or department approval)

Provides an accelerated introduction to the .NET Framework and the C# development environment within a C# context. Course scope includes review of 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, stressing inheritance and polymorphism, and concludes with a web application interfacing with a database.
Note(s)
30 theory + 45 lab hours

CIS 1284 - .Net I/Visual Basic

3 credit hour(s) (Prerequisite: CP 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.
Note(s)
30 theory + 45 lab hours

CIS 1310 - Introduction to Digital Media

3 credit hour(s) (Recommended prerequisites: IT 1010

+ knowledge of Windows)

Explores concepts of how text, graphics, sound, images and video come together in a multimedia program.

CIS 1325 - Visual Communication

3 credit hour(s) 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, digital media, web design and film. The business of design will also be covered.

CIS 1330 - Photoshop

3 credit hour(s) (Prerequisite: IT 1010 or department approval)

Focuses on techniques for modifying raster images using Adobe Photoshop. Students learn to make selections, work with layers, color correction, retouching techniques, masking, use channels, use paths, typography, compositing, and painting. Students learn output techniques for both screen and print.
Note(s)
30 theory + 45 lab hours

CIS 1410 - IT Essentials I: PC Hardware and Software

3 credit hour(s) (Pre- or corequisites: IT 1010)

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.
Note(s)
30 theory + 45 lab hours

CIS 1415 - Networking for Home and Small Business

3 credit hour(s) (Prerequisite: CIS 1410)

Focuses on the installation and administration of network communication systems. Students will learn the general theory of network communications and basic setup, configuration, and management of network communication protocols on networking devices, including servers, routers and switches. (30 theory + 45 lab hours per term)
Note(s)
30 theory + 45 lab hours

CIS 1420 - Introduction to Computer Networking

3 credit hour(s) (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 1

3 credit hour(s) (Pre- or corequisite: 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.
Note(s)
30 theory + 45 lab hours

CIS 1513 - Database Design and Introduction to SQL

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

CIS 1610 - Windows Client Software for Systems Administrators

3 credit hour(s) (Recommended prerequisite: CIS 1420)

Focuses on managing the Windows operating system to manage user accounts and groups and to control access to files and other resources. Covers concepts such as internetworking, protocols, remote access, performance tuning and troubleshooting. This course may assist in preparation for MCTS or MCITP certification. Version taught subject to change. Please check with school.
Note(s)
30 theory + 45 lab hours

CIS 1680 - Linux Essentials

3 credit hour(s) (Pre- or corequisite: 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.
Note(s)
30 theory + 45 lab hours

CIS 1713 - XHTML Complete

3 credit hour(s) 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.
Note(s)

30 theory hours

45 lab hours

CIS 1715 - Overview of Web Technologies

3 credit hour(s) (Recommended Prerequisite: IT 1010)

This course surveys the different technologies used for Web development. Topics covered include Content Management Systems, hypertext markup language, CSS, client and server-side scripting languages as well as basic database processing techniques and web frameworks.
Note(s)
30 theory + 45 lab hours

CIS 1730 - JavaScript Programming II

3 credit hour(s) (Prerequisite: CIS 1210 or CIS 1207,

Recommended Prerequisite: CIS 1713 or CIS 2740)

This course introduces students to DOM scripting using JavaScript. Students will learn the skills needed to add interactivity to web pages. This course builds on knowledge of hypertext mark-up language and CSS to expand the functionality of web pages by including aspects of JavaScript including browser events, forms validation, cookies and user interfaces. Students use frameworks in addition to writing original code.
Note(s)

30 theory hours

45 lab hours

CIS 1750 - Web Programming with PHP

3 credit hour(s) (Prerequisite: CIS 1207 or CIS 1210)

This course provides the PHP, MySQL and framework skills necessary to design and develop dynamic, database-driven web sites. The emphasis is on using existing code libraries in addition to writing original code.
Note(s)
30 theory + 45 lab hours

CIS 2095 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Provides students the opportunity to work a minimum of 135 hours at business or training-related supervised work stations. Student trainees are paid by the cooperating firm and supervised work stations. Students trainees are paid by the cooperating firm and supervised jointly by CNM and the employer.

CIS 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CIS 2097 - Independent Study

1-6 credit hour(s) (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.
Note(s)
(all courses ending in 97 are independent study courses)

CIS 2098 - Internship

3 credit hour(s) (Prerequisite: department approval)

Provides students the opportunity to work a minimum of 135 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 credit hour(s) (Recommended prerequisite: IT 1010 + CIS 1130)

Focuses on planning, scheduling, managing and communicating project information.
Note(s)
10 theory + 15 lab hours

CIS 2111 - Project Management

3 credit hour(s) Focuses on the project management framework and covers each of the project management knowledge areas in the context of information technology projects. (30 theoryhours/45 lab hours).

CIS 2120 - Hardware and Software Administration

3 credit hour(s) (Prerequisites: CIS 1130 or CIS 1610 or division 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.
Note(s)
30 theory + 45 lab hours

CIS 2235 - Java Programming I

3 credit hour(s) (Prerequisite: CIS 1275 or department approval)

Provides an accelerated introduction to 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.
Note(s)
30 theory + 45 lab hours

CIS 2237 - Java Programming II

3 credit hour(s) (Prerequisite: CIS 2235 or department approval)

Focuses on advanced Java technologies. Course covers design, implementation and deployment of advanced programs based on Java which may include web programming, small device applications (Android, phones, pads, etc.), and related technologies including web services, advanced graphics, databases, multimedia, and other relevant technologies.
Note(s)

30 theory hours

45 lab hours

CIS 2270 - Open GL Programming

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

CIS 2275 - C++Programming II (Object-Oriented Programming)

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

CIS 2277 - C++Programming III (Advanced OOP)

3 credit hour(s) (Prerequisite: CIS 2275 or department approval)

Covers advanced programming including stacks, queues, linked lists, template classes, inheritance and polymorphism and other computer science problems.
Note(s)
30 theory + 45 lab hours

CIS 2279 - Windows Programming in C++

3 credit hour(s) (Prerequisites: 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++.
Note(s)
30 theory + 45 lab hours

CIS 2284 - .NET II/C#

3 credit hour(s) (Prerequisite: CIS 1280 or permission of instructor)

Course focuses on development of ASP.net web applications using Microsoft's Visual Studio Integrated Developer Environment. A substantial portion of the course curriculum includes applications that manipulate relational databases, culminating in the configuration and customization of ASP.NET Membership databases. Students will create a fully-function photo-album website featuring user registration, albums, and comment functionality for authenticated users.
Note(s)
30 theory + 45 lab hours

CIS 2310 - Page Layout and Type Design

3 credit hour(s) (Prerequisite: IT 1010)

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.
Note(s)
30 theory + 45 lab hours

CIS 2336 - Post Production Special Effects

3 credit hour(s) (Prerequisite: CIS 1310 or department approval)

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 credit hour(s) (Recommended prerequisite: IT 1010)

Explores concepts such as building websites using rollovers, tables and style sheets.
Note(s)
20 theory + 30 lab hours

CIS 2350 - Flash

3 credit hour(s) (Prerequisite: CIS 1310 or CIS 1330 or department approval)

Focuses on concepts such as animation, drawing and interactivity in Flash as well as sound and introduction to actions. (30 theory hours/45 lab hours).

CIS 2355 - Adobe Illustrator

3 credit hour(s) (Prerequisites: 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.
Note(s)
30 theory + 45 lab hours

CIS 2360 - Digital Video Editing

3 credit hour(s) (Prerequisite: CIS 1310)

Lab-based instruction and application of the theories and techniques of nonlinear digital video editing. Emphasis will be on editing and integrating special effects for video, CD-ROM and the Web.

CIS 2375 - Digital Design Studio

3 credit hour(s) (Prerequisites: CIS 1330 + CIS 2355)

Examine and practice vector-based illustration and artistic skills in raster applications via project based instruction. Critical thinking and problem solving projects are taught in concert with professional high-level software and visual skills. Skills are taught as they relate to creating portfolio ready work and presentations.

CIS 2381 - Advanced Photoshop

3 credit hour(s) (Prerequisite: CIS 1330)

Expands on the basic Photoshop skill set to develop proficiency with selections, masking, channels, filters, color correction, painting tools, vector integration, video, 3D, special effects, and compositing techniques. Focuses on the core image-editing tools of Photoshop that can be universally applied to photography, print, film or the web. The material is covered in production-oriented projects which are presented on the web and students develop work suitable for portfolios.

CIS 2420 - Basic Router Config./Cisco Academy Semester 2

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

CIS 2423 - Local Area Network Management/Cisco Academy Semester 3

3 credit hour(s) (Prerequisite: CIS 1425 or department approval)

Configure and troubleshoot routers/switches in a LAN environment. Prepares students for the Cisco Certified Networking Associate certification. (30 theory hours/45 lab hours)

CIS 2425 - Wide Area Network Management/Cisco Academy Semester 4

3 credit hour(s) (Prerequisite: CIS 2423)

Configure and troubleshoot routers/switches in a WAN environment. Prepares students for the Cisco Certified Networking Associate certification.
Note(s)
30 theory + 45 lab hours

CIS 2427 - Troubleshooting Networks

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

CIS 2450 - Fundamentals of Network Security

3 credit hour(s) (Prerequisite: CIS 2420)

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.
Note(s)
30 theory + 45 lab hours

CIS 2520 - Introduction to SQL (Structured Query Language)

3 credit hour(s) (Prerequisites: 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 for the 1st Oracle Associate Certification Test.
Note(s)
30 theory + 45 lab hours

CIS 2521 - Database Programming with PL/SQL

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

CIS 2522 - APEX - Build Web Applications

3 credit hour(s) (Prerequisites: CIS 2520 or department approval)

Students will build, test and deploy web applications using an enterprise database system in an Oracle APEX environment. The students learn how to build standard or custom forms with list items, radio buttons, check boxes and Lists of Values (LOV), as well as customizing forms with PL/SQL programming.
Note(s)
30 theory + 45 lab hours

CIS 2524 - PeopleSoft Enterprise Reporting Services

3 credit hour(s) (Prerequisite: CIS 2521 or department approval)

Introduces the PeopleSoft application development methodology. This course provides a general description of PeopleSoft system architecture and the tool set used to develop new or customize existing PeopleSoft applications. Students receive hands-on experience with the PeopleSoft Application Designer to create and modify PeopleSoft definitions such as fields, records, pages, and components. By the end of this course you will be able to use PeopleSoft Application Designer to create and deploy a PeopleSoft internet application. (30 theory hours/45 lab hours).
Note(s)
30 theory + 45 lab hours

CIS 2525 - Developing Client/Server Apps with Enterprise Databases

3 credit hour(s)

(Prerequisite: CIS 2520 or department approval)

Students will learn how the programming environment interfaces to enterprise databases. Students will be taught beginning database management skills and the report development life cycle, while learning how to deliver and present business information. The course will use enterprise databases such as SQL Server, and/or Oracle. Topics covered include: Microsoft Database Engine (MSDE), Transact SQL, stored procedures, views, and extensive coverage of enterprise reporting systems. This course may aid students in preparing for MCTS certification (Microsoft SQL Server, Database Development).

CIS 2620 - Windows Server Management

3 credit hour(s) (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 MCITP certification. Version being taught subject to change. Please check with school.
Note(s)
30 theory + 45 lab hours

CIS 2630 - Windows Server Application Infrastructure Configuration

3 credit hour(s)

(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 MCITP certification. Server version being taught subject to change.

Note(s)
30 theory + 45 lab hours

CIS 2635 - Windows Directory Services Management

3 credit hour(s) (Prerequisite: CIS 2620 or department approval)

Focuses on organizing objects into a structure that provides for 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 MCITP certification. Version being taught subject to change. Please check with school.
Note(s)
30 theory + 45 lab hours

CIS 2650 - Windows Server Network Infrastructure Configuration

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

CIS 2670 - Computer Security+

3 credit hour(s) (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 organizational security.
Note(s)
30 theory + 45 lab hours

CIS 2740 - Cascading Style Sheets

3 credit hour(s) 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.
Note(s)
30 theory + 45 lab hours

CIS 2760 - Webmaster Tools

3 credit hour(s) (Recommended Prerequisite: CIS 1713)

This course covers application programming interfaces (API) to facilitate web interactive information sharing and interoperability. The student will build websites with embedded content including maps and video, use metrics to optimize website performance, and prepare for industry certification.

CIS 2999 - Capstone Course

1 credit hour(s) (Prerequisite: department approval)

Focuses on assessment of student learning outcomes for program of study. (Taken in student's last term.)

Computer Science

CSCI 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

CSCI 1151 - Intro to Programming fo Non-Computer Science Majors

4 credit hour(s) (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 credit hour(s) (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.

CSCI 1153 - Programming in Matlab

4 credit hour(s) (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.

CSCI 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

CSCI 2201 - Mathematical Foundations of Computer Science

4 credit hour(s) (Prerequisites: 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 credit hour(s) (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.

Construction Management

CM 1105 - Construction Detailing

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0940 + RDG 0950 or appropriate placement scores or department approval)

Introduces the basics of manual drawing, construction detailing, construction contract documents, working drawings and blueprint reading. (30 theory hours/45 lab hours)

CM 1110 - Construction Materials and Techniques

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0940 + RDG 0950 or appropriate placement scores or department approval)

Introduction to the construction industry, educational opportunities, materials, techniques and terminology of construction.

CM 1115 - Commercial Construction Theory

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0940 + RDG 0950 or appropriate placement scores or department approval)

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

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0940 + RDG 0950 or appropriate placement scores or department approval)

Introduces principles and techniques of computer graphic applications used in the construction industry. (30 theory hours/45 lab hours)

CM 1210 - Mechanical Electrical Systems and Construction

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0940 + RDG 0950 or appropriate placement scores or department approval)

Introduces materials and equipment associated with the mechanical and electrical systems used in commercial and residential buildings. (30 theory hours/45 lab hours)

CM 1215 - Construction Equipment and Methods

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0940 + RDG 0950 or appropriate placement scores or department approval)

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 credit hour(s) (Prerequisites: ENG 0950 + MATH 0940 + RDG 0950 or appropriate placement scores or department approval)

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/0 lab hours)

CM 1305 - Construction Estimating

3 credit hour(s) (Prerequisite: CM 1105 + 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 hours/90 lab hours)

CM 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite permission of program chair)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CM 2105 - Construction Scheduling

3 credit hour(s) (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. (30 theory hours/45 lab hours)

CM 2115 - Computerized Estimating Techniques

3 credit hour(s) (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 hours/90 lab hours)

CM 2120 - Statics

3 credit hour(s) (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 credit hour(s) (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 hours/90 lab hours)

CM 2210 - General Contractor Preparation

3 credit hour(s) 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 credit hour(s) (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)
Note(s)
30 theory + 45 lab hours

CM 2220 - Computerized Project Management and Scheduling

3 credit hour(s) (Prerequisite: CM 2105 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 hours/90 lab hours)

CM 2995 - Cooperative Education

3 credit hour(s) (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

1-7 credit hour(s) (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 credit hour(s) (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 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies (taken during student's term).

Cosmetology

COS 1010 - Orientation

2 credit hour(s) (Prerequisite: MATH 1210 + IT 1010 + ENG 1101 + Fine Arts Elective or Language Elective or Humanities Elective or Social/Behavioral Science Elective + Department Approval) (Corequisites: COS 1020 + COS 1030)

Introduces cosmetology. Presents theory in the area of professional image, first aid, work ethic, anatomy, physiology and Salon Success.

COS 1020 - Cosmetology Fundamentals I

6 credit hour(s) (Co-requisites: COS 1010 + COS 1030)

Introduces theory and practice; anatomy, physiology, preparation, procedures, products, infection control through sanitation, disinfection and sterilization; use of chemical agents, fumigants, UV light; hair sculpture and styling services, wigs, hair additions and hair coloring; skill development in technical procedures and applications, related chemistry problem solving, focusing on safety, client protection, consultation and client service records. (45 theory hours/135 lab hours)

COS 1030 - Cosmetology Fundamentals II

6 credit hour(s) (Corequisites: COS 1010 + COS 1020)

Introduces anatomy, physiology, preparation procedures, products, materials and tools used in natural and artificial nails for hands and feet, shampoo service, hair analysis, and treatments for scalp and hair, permanent waving, relaxer treatments, techniques for chemical rearranging; demonstrating skills in client consultation, recommendations, related chemistry, safety, client protection, record keeping and quality customer service. (45 theory hours/135 lab hours)

COS 1080 - Salon Theory I

2 credit hour(s) (Prerequisites: COS 1010 + COS 1020 + COS 1030) (Corequisites: COS 1092 + COS 1193)

Presents intermediate theory in haircutting, coloring, lightening, hairstyling, facials, manicuring and pedicuring, community health issues, salon safety, problem solving, special projects, and salon success.

COS 1092 - Hair Service Lab II

5 credit hour(s) (Pre or corequisite: COMM 2221) (Corequisite: COS 1080 + COS 1193)

Continues basic application of shampoo, rinses, scalp treatment, chemical rearranging, perm, relaxer, haircutting, coloring and styling in a supervised lab. (0 theory hours/225 lab hours)

COS 1096-1996 - Special Topics

1-6 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

COS 1097 - Independent Study

1-6 credit hour(s) (Prerequisite: division approval)

Focuses on a specific problem while working with an instructor.

COS 1193 - Skin/Nails Service

4 credit hour(s) (Prerequisite: COS 1010) (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. (180 lab hours)

COS 2080 - Salon Theory II

1 credit hour(s) (Prerequisites: COS 1080 + COS 1092 + COS 1193) (Corequisites: COS 2093 + COS 2492)

Presents concentration of theory in the areas of first aid, anatomy, physiology, chemistry, electro and light therapy, sterilization, sanitation, bacteriology, shampoo, rinses, scalp treatments, chemical rearranging, perms, relaxers issues, salon safety, and salon success.

COS 2093 - Hair Service III

5 credit hour(s) (Corequisite: COS 2080 + 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. (0 theory hours/225 lab hours)

COS 2492 - Facials/Manicuring/Pedicuring Lab III

4 credit hour(s) (Corequisite: COS 2080 + COS 2093)

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. (0 theory hours/180 lab hours)

COS 2505 - Salon Operation Theory

1 credit hour(s) (Prerequiste: COS 2080 + COS 2093 + COS 2492) (Corequisite: COS 2510 + COS 2511 + COS 2592 + COS 2692 + COS 2693)

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 credit hour(s) (Corequisite: COS 2505 + COS 2511 + COS 2592 + COS 2692 + COS 2693)

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 credit hour(s) (Corequisite: COS 2505 + COS 2510 + COS 2592 + COS 2692 + COS 2693)

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 credit hour(s) (Corequisite: COS 2505 + COS 2510 + COS 2511 + COS 2692 + COS 2693)

Exposes student to salon business and retail sales concepts 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. (0 theory hours/135 lab hours)

COS 2692 - Advanced Salon Lab

4 credit hour(s) (Corequisite: COS 2505 + COS 2510 + COS 2511 + COS 2592 + COS 2693)

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. (0 theory hours/180 lab hours)

COS 2693 - Advanced Salon Lab II

4 credit hour(s) (Corequisite: COS 2505 + COS 2510 + COS 2511 + COS 2592 + COS 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. (0 theory hours/180 lab hours)

Court Reporting

CR 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CR 1111 - Introduction to Court Reporting

4 credit hour(s) 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 credit hour(s) Covers fundamental rules for punctuating syntax and presents verbatim English and modifies the rules of punctuate the spoken word.

CR 1131 - Machine Shorthand II

3 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CR 2097 - Independent Study

1-8 credit hour(s) 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 credit hour(s) (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 record and transcribe a 40-page or two 20-page saleable transcripts from a court hearing or deposition.

CR 2240 - Legal Terminology

3 credit hour(s) Civil law, criminal law, the judicial system and Latin/legal terminologies.

CR 2250 - Computer-Aided Transcription

3 credit hour(s) Instruction on production of transcripts on computer-aided transcription software to include title pages, index pages, certifications, parentheticals, court and deposition formats.
Note(s)
30 theory + 45 lab hours

CR 2251 - Stenotranscription

3 credit hour(s) (Prerequisite: CR 1131)

Provides instruction on the functions and applications of stenotranscription software. This software allows students to transcribe tapes to 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 credit hour(s) Covers instruction on depositions, administering oaths, handling exhibits, storing notes and applying ethics. Includes instruction on interviewing skills and resume preparation.

Criminal Justice

CJ 1001 - Introduction to Criminal Justice

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950 or appropriate placement scores 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 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950 or appropriate placement scores 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 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950 or appropriate placement scores 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 1096-1996 - Special Topics

1-6 credit hour(s) (Prerequisite: division approval)

Presents various topics.

Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CJ 1502 - Juvenile Law and Procedure

3 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or department approval)

Covers the development of security services, relationships to the legal process, career roles and operational processes in security operations. This course also helps homeowners and covers Homeland Security, report writing and emergency procedures.

CJ 1518 - Report Writing

3 credit hour(s) (Prerequisite: ENG 0950 + RDG 0950 + MATH 0930; or appropriate placement scores; or department approval)

Covers criminal justice reports, including writing and use of forms.

CJ 1580 - Patrol Practices

3 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or department approval)

Introduces basic patrol functions, practices problems faced by law enforcement officers.

CJ 2005 - Probation and Parole

3 credit hour(s) (Prerequisites: 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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CJ 2505 - Community-Oriented Policing

3 credit hour(s) (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 credit hour(s) (Prerequisites: 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 2512 - Juvenile Corrections

3 credit hour(s) (Prerequisite: RDG 0950 + MATH 0930 or appropriate placement scores or departmental approval + CJ 1502)

Covers juvenile probation, detention, training schools and juvenile aftercare (parole). This course will require students to work in teams that will design programs and facilities for juvenile corrections. Designs will be evaluated for their practical value in compliance with ACA standards.

CJ 2513 - Institutional Corrections

3 credit hour(s) (Prerequisite: CJ 1002 + CJ 1007 or department approval)

Covers the historical evolution of jails and prisons including, jurisdiction, intake, classification, security, inmate subculture, security threat groups, programs and services, supervision, pre-release and special management inmates.

CJ 2514 - Introduction to Homeland Security

3 credit hour(s) (Prerequisite: CJ 1002 + CJ 1007 or department approval)

This course will introduce students to the vocabulary and important components of Homeland Security. There will be discussion of the importance of the agencies associated with Homeland Security and their interrelated duties and relationships. The course will examine historical events that impact Homeland Security. The course will explore state, national, and international laws impacting Homeland Security. It will examine the most critical threats confronting Homeland Security
Note(s)
Previously HLS 1110

CJ 2515 - Criminal Investigation

3 credit hour(s) (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.

CJ 2516 - Transportation and Border Security

3 credit hour(s) (Prerequisite: CJ 1002 + CJ 1007 or department approval)

This course provides an in-depth view of modern border and transportation security. Specific topics include security for seaports, ships, aircraft, trains, trucks, pipelines, buses, etc. The course focuses on the technology needed to detect terrorists and their weapons as well as discussion of legal, economic, political, and cultural aspects of the problem.
Note(s)
Previously HLS 1130

CJ 2517 - Intelligence Analysis and Security Management

3 credit hour(s)

(Prerequisite: CJ 1002 + CJ 1007 or department approval)

This course examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks, man-made disasters and natural disasters. It also explores vulnerabilities of our national defense and private sectors, as well as the threats posed to these institutions by terrorists, man-made disasters, and natural disasters. Students will discuss substantive issues regarding intelligence support of homeland security measures implemented by the United States and explore how the intelligence community operates.

Note(s)

Previously HLS 1120

CJ 2692 - Criminal Investigation Laboratory

1 credit hour(s) (Prerequisite: CJ 2515 or department approval)

Introduces exercises and practical demonstrations related to the investigations of crime.
Note(s)
45 lab hours

CJ 2695 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Employs the student at an approved program-related work site and applies learned theory based on goals and objectives. (0 theory hours/135 lab hours)

CJ 2697 - Independent Study

1-6 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

CJ 2698 - Internship

3 credit hour(s) (Prerequisite: department approval)

Provides opportunity for student to work as a volunteer in an appropriate criminal justice division. Position is not paid. (0 theory hours/135 lab hours)

CJ 2999 - Criminal Justice Capstone Course

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term)

Culinary Arts

CULN 1010 - Food Production and Service Fundamentals

3 credit hour(s) (Pre or co-requisite: HT 1101 or CULN 1103)

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.
Note(s)

30 theory hours

45 lab hours

CULN 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CULN 1100 - Introduction to Culinary Skills

3 credit hour(s) (Prerequisites: MATH 0930 + RDG 0950 + ENG 0950 or appropriate placement scores) (Pre- or corequisite: CULN 1103 or department approval) (Corequisite: CULN 1110 or department approval)

Provides theoretical foundation for executing basic kitchen operations, including cooking methods, proper use of tools and equipment, knife skills, sauce, stock, and soup production, quick breads, and breakfast items in a professional environment. Introduces students to applied mathematics as it applies to recipe production, yield adjustment, food costs, and cost ratios.

CULN 1103 - Safety and Sanitation Principles

3 credit hour(s) (Prerequisite: MATH 0930 + RDG 0950 + ENG 0950 or appropriate placement scores)

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 1110 - Culinary Skills

4 credit hour(s) (Corequisite: CULN 1100)

Introduces students to basic culinary skills, including principles of cooking methods, knife skills, identification and proper use of tools and equipment, production of soups, stocks and sauces, quick breads, and egg cookery. Instruction focuses on applying principles of mise en place, sanitation, teamwork, and time management to all kitchen operations. (15 theory hours/135 lab hours).

CULN 1112 - Cooking Fundamentals

5 credit hour(s) (Prerequisites: CULN 1100 + CULN 1103 + CULN 1110 + IT 1010) (Recommended Pre- or Corequisite: HT 2215)

Introduces students to culinary skill development, including, cheeses, meat and game fabrication and cookery; fish and shellfish fabrication and cookery, salads and dressings, sandwiches, starch and vegetable cookery, small sauce cookery, food presentation and garniture and lunch buffet procedures.
Note(s)

30 theory hours

135 lab hours

CULN 1130 - Introduction to Baking Fundamentals

5 credit hour(s) (Prerequisites: CULN 1100 + CULN 1103 + CULN 1110 + IT 1010)

This course includes the theory, skills and techniques of baking fundamentals. Competencies include scaling, methods of mixing, processing of ingredients, ingredient functions and baking math. Topics include cookies, quick breads, pan breads, sweet yeast, cakes and decorating. Proper equipment use and safety are stressed.
Note(s)

30 theory hours

135 lab hours

CULN 1132 - Applied Baking Principles

5 credit hour(s) (Pre- or corequisite: CULN 1130 or department approval)

Students apply learned fundamentals and concepts from CULN 1130 to continue skill development. Through theory and demonstration, more difficult products and the components to complete them are covered. Topics include laminated dough, artisan bread, scratch cakes, tarts, pies, meringues, and pate a choux. Multitasking is stressed.
Note(s)

30 theory hours

135 lab hours

CULN 2095 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Provides students the opportunity to work a minimum of 135 hours in a new job experience in a culinary environment. Student trainees are paid by the cooperating firm and supervised jointly by CNM and the employer.
Note(s)

135 lab hours

CULN 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

CULN 2097 - Independent Study

1-10 credit hour(s) (Prerequisite: department approval)

Student work 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.

CULN 2098 - Internship

3 credit hour(s) (Prerequisite: department approval)

Provides students the opportunity to work a minimum of 135 hours in a new job experience in a culinary environment. Students are not paid for their work but are supervised jointly by CNM and the employer.
Note(s)

135 lab hours

CULN 2212 - Global Cuisines

5 credit hour(s) (Prerequisite: CULN 1112 or department approval)

Introduces flavor principles of Global cuisines and their 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.
Note(s)

30 theory hours

135 lab hours

CULN 2232 - Advanced Baking and Pastry

5 credit hour(s) (Prerequisite: CULN 1132 or department approval)

Continues to emphasize advanced theory topic, skills and techniques of classical and contemporary pastry arts. Specialty topics will include genoise, international buttercreams, icings, sugar and chocolate decoration.
Note(s)

30 theory hours

135 lab hours

Cultural Studies

CST 1150 - Introduction to Cultural Studies

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Explores cultural constructions of differences, including but not limited to gender, race, ethnicity, social class and sexual orientation in contemporary U.S. society.

CST 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)

(all courses ending in 96 are special topics) See *Schedule of Classes*.

CST 2260 - Popular Culture and Cultural Identity

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Examines ways in which popular culture, from film and television to formula fiction, art and music, define and reveal cultural values.

Dental Assistant

DA 1010 - Dental Science I

3 credit hour(s) (Prerequisites: RDG 0950 + MATH 0750 + ENG 0950; or appropriate placement scores)

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 work dental office and use of computers for employability skills.
Note(s)
15 theory + 150 lab hours

DA 1101 - Practical Application of Dental Materials

2 credit hour(s) (Prerequisites: DA 1010 + ENG 1101 + COMM 2221 + department approval) (Co-Requisites: DA 1104 + DA 1107 + DA 1119 + DA 1192 DA 1193 + DA 1292)

This course introduces students to the study of the physical and chemical properties of dental materials and their relationship to dentistry. Includes topics such as the handling and safety of dental materials, bonding techniques, preventive and bleaching materials, composites, amalgam, abrasion and polishing, cements, impression materials, gypsum products and dental waxes.

DA 1104 - Tooth Morphology Histology an Recordings

3 credit hour(s) (Corequisites: DA 1101 + DA 1107 + DA 1119 + DA 1192 + DA 1193 + DA 1292)

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 1107 - Principles and Techniques of Dental Radiology I

2 credit hour(s) (Prerequisite: Students must be 18 years of age prior to entering due to federal radiation guidelines) (Corequisites: DA 1101 + DA 1104 + DA 1119 + DA 1192 + DA 1193 + DA 1292)

Provides an introduction to the study of the science of x-radiation as it pertains to dentistry. Includes topics such as radiation protection, infection control, image characteristics, dental film processing, dental x-radiation equipment, radiation physics and radiation biology.

DA 1119 - Fundamentals of Chairside Assisting I

2 credit hour(s) (Corequisites: DA 1101 + DA 1104 + DA 1107 + DA 1192 + DA 1193 + DA 1292)

Introduction to the study of dental assisting procedures and preparation of the student for clinical assisting. Included topics: ergonomics, patient records, vital signs, delivery of dental care, disease transmission, infection control, principals and techniques of disinfection and sterilization, dental unit water lines, regulatory and advisory agencies, instrumentation, and pain management.

DA 1192 - Practical Application of Dental Materials Lab

1 credit hour(s) (Corequisites: DA 1101 + DA 1104 + DA 1107 + DA 1119 + DA 1193 + DA 1292).

This course provides the application of principles taught in DA 1101, with hands on instruction for materials including: preventive and bleaching materials, composites, amalgam, abrasion and polishing, cements, impression materials, gypsum products and dental waxes. Also includes bonding techniques. (0 theory hours/45 lab hours)

DA 1193 - Principals and Techniques of Dental Radiology I Lab

1 credit hour(s) (Corequisites: DA 1101 + DA 1104 + DA 1107 + DA 1119 + DA 1192 + DA 1292)

This course provides the application of principals taught in DA 1107, with hands on instruction in radiation protection for the operator and patient, infection control, image characteristics, dental film exposure, processing and mounting, operation and care of digital x-ray equipment. (0 theory hours/45 lab hours)

DA 1292 - Fundamentals of Chairside Assisting I Lab

1 credit hour(s)

(Corequisites: DA 1101 + DA 1104 + DA 1107 + DA 1119 + DA 1192 + DA 1193)

This course provides the clinical application of principles taught in DA 1119, with hands-on instruction in the use and sterilization of all dental instruments and basic fundamentals of chairside assisting. Subject areas are arranged in a clinical competency program, which is a method of study that helps the student master each skill before advancing to the next level. (0 theory hours/45 lab hours)

DA 1512 - Dental Science II

3 credit hour(s) (Prerequisites: DA 1101 + DA 1104 + DA 1107 + DA 1119 + DA 1192 + DA 1193 + DA 1292) (Corequisites: DA 1517 + DA 1519 + DA 1590 + DA 1592 + DA 1593)

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 1517 - Principles and Techniques of Dental Radiology II

2 credit hour(s)

(Corequisites: DA 1512 + DA 1519 + DA 1592 + DA 1590 + DA 1593)

This course builds on the comparison and contrast between the bisecting and paralleling techniques used for exposing intra oral radiographic films. Topics to be covered include paralleling technique, bitewing technique, introduction to radiographic examination, bisecting technique, occlusal and localization technique, digital radiography, normal anatomy, and identification of restorations in a radiograph.

DA 1519 - Fundamentals of Chairside Assisting II

2 credit hour(s)

(Corequisites: DA 1512 + DA 1517 + DA 1590 + DA 1592 + DA 1593)

Topics to be discussed include general dentistry, moisture control, matrix systems, restorative procedures, provisional coverage, coronal polishing, dental sealants, medically and physically compromised patients, assisting in a medical emergency, dental ethics and the law.

DA 1590 - Clinical Experience I

6 credit hour(s) (Corequisites: DA 1512 + DA 1517 + DA 1519 + DA 1592 + DA 1593)

Introduces clinical practice through student perceptorships utilizing four-handed dentistry at chair-side including extended function in general dentistry delegated to the DA as designated by the New Mexico Dental Practice Act (coronal polishing, fluoride application). (15 theory hours/225 clinical hours)

DA 1592 - Fundamentals of Chairside Assisting II Lab

1 credit hour(s) (Co-Requisites: DA 1512 + DA 1517 + DA 1519 + DA 1590 + DA 1593)

This course provides the application of principles with hands on instruction in chair-side instrumentation, techniques and patient management. Includes laboratory practice of provisional coverage, coronal polishing, fluoride application and pit and fissure sealant application. (0 theory hours/45 lab hours)

DA 1593 - Principles and Techniques of Dental Radiology II Lab

1 credit hour(s)

(Corequisites: DA 1512 + DA 1517 + DA 1519 + DA 1590 + DA 1592)

This course provides the application of principals with hands on instruction in bisecting and paralleling techniques used during exposure of intra oral radiographic films. Instruction will include occlusal and localization technique, digital radiography, identification of anatomical landmarks, and identification of restorations in a radiograph. Students will expose radiographs on human subjects. (0 theory hours/45 lab hours)

DA 2090 - Clinical Experience II

5 credit hour(s) (Preequisites: DA 1512 + DA 1517 + DA 1519 + DA 1590 + DA 1592 + DA 1593) (Corequisites: DA 2408 +DA 2492 + DA 2513 + DA 2593)

Provides student clinical practice in dental offices to utilize 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 hours/180 clinical hours)

DA 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

DA 2408 - Dental Administration and Communication

1 credit hour(s)

(Co-Requisites: DA 2090 +DA 2492 + DA 2513 + DA 2593)

This course provides basic skills and background in various aspects of dental reception functions and office management procedures. Topics to be discussed include telecommunications, appointment management systems, inventory systems and supply ordering, insurance, bookkeeping and planning and managing a career path.

DA 2492 - Dental Administration and Communications Lab

1 credit hour(s)

(Co-Requisites: DA 2090 + DA 2408 + DA 2513 + DA 2593)

This course puts information into practice using computerized software to mimic everyday tasks completed in a dental business office. Students will complete learning activities in a computer lab including various letter writing, treatment plans and sequencing appointments, creating a supply list, dental insurance claim forms, check writing, and creating a resume. (0 theory hours/45 lab hours)

DA 2513 - Introduction to Dental Specialties

2 credit hour(s) (Corequisites: DA 2090 + DA 2408 + DA 2492 + DA 2593)

This course introduces the field of dental specialties as well as discussion of tasks that can be legally performed by a dental assistant while providing supportive treatment in a dental specialty office. Topics include: endodontics, oral surgery, periodontics, pediatrics, implants, and orthodontics.

DA 2593 - Introduction to Dental Specialties Lab

1 credit hour(s) (Corequisites: DA 2090 + DA 2408 + DA 2492 + DA 2513)

This course provides the application of principles with hands on instruction of selective dental assisting tasks that can be legally performed while providing supportive treatment in dental specialty offices. (0 theory hours/45 lab hours)

Diagnostic Medical Sonography

DMS 1010 - Introduction to Diagnostic Medical Sonography

1 credit hour(s) (Prerequisites: MATH 1315 + department approval) (Pre- or corequisites: BIO 2210 and BIO 2292 + COMM 2221 + ENG 1101 + IT 1010 + PHYS 1510 and PHYS 1592) (Corequisite: DMS 1085 + DMS 1093 + DMS 1112 + DMS 1192 + DMS 1075 + HLTH 1001)

Presents general information about the profession, credentialing, work environments and relationships 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 credit hour(s) (Corequisites: DMS 1010 DMS 1085

DMS 1093 DMS 1112 DMS 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.
Note(s)
15 theory + 45 lab hours

DMS 1085 - Sonographic Concepts

3 credit hour(s) (Corequisite: DMS 1010 + DMS 1075 + DMS 1093 + DMS 1112 + DMS 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 structures. This lab provides scanning using real time equipment and stimulations.
Note(s)

30 theory hours

45 lab hours

DMS 1093 - Sonographic Concepts Lab

1 credit hour(s) (Corequisite: DMS 1010, DMS 1075, DMS 1085 , DMS 1112, DMS 1192)

Provides the opportunity to practice and apply the concepts in DMS 1085 using live scanning.
Note(s)
45 lab hours

DMS 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

DMS 1112 - Sonographic Anatomy

2 credit hour(s) (Corequisite: DMS 1010, DMS 1075, DMS 1085, DMS 1093, DMS 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 credit hour(s) (Corequisite: DMS 1010, DMS 1075, DMS 1085, DMS 1093, DMS 1112)

Presents sonographic anatomy using live scanning of models.
Note(s)
45 lab hours

DMS 1503 - DMS Pathophysiology I

3 credit hour(s) (Prerequisites: DMS 1010 + DMS 1075 + DMS 1085 + DMS 1093 + DMS 1112 + DMS 1192 + HLTH 1001) (Pre- or corequisite: BIO 2310 and BIO 2392) (Corequisite: DMS 1511 + DMS 1590 + DMS 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 credit hour(s) (Corequisite: DMS 1503 + DMS 1575 + DMS 1590)

Presents sonographic examinations of liver, biliary system, pancreas, urinary tract, adrenal glands, spleen, prevertebral vessels, peritoneal cavity, gastronintestinal 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 hours/45 lab hours)

DMS 1575 - Sonographic Physics I

2 credit hour(s) (Corequisite: DMS 1503 + DMS 1511 + DMS 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 hours/45 lab hours)

DMS 1590 - Clinical Sonography I

4 credit hour(s) (Corequisite: DMS 1503 + DMS 1511 + DMS 1575)

Provides supervised clinical experiences in area hospitals and health care facilities related to concepts presented in DMS 1511, DMS 1503 and DMS 1575. (0 theory hours/180 clinical hours)

DMS 2003 - DMS Pathophysiology II

3 credit hour(s) (Prerequisites: DMS 1503 + DMS 1511 + DMS 1575 + DMS 1590) (Corequisite: DMS 2075 + DMS 2092 + DMS 2090)

Presents pathophysiology of the gravid and non-gravid pelvis. The focus is on abnormal conditions. Iatrogentic, degenerative, inflammatory, traumatic, neoplastic, infectious, obstructive, congenital, metabolic, immunologic conditions. Abnormal patterns in pregnancy.

DMS 2075 - Sonography Physics II

2 credit hour(s) (Corequisites: DMS 2003 + DMS 2090 + DMS 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.
Note(s)

15 theory hours

45 lab hours

DMS 2090 - Clinical Sonography II

5 credit hour(s)

(Corequisite: DMS 2003 + DMS 2075 + DMS 2092)

Provides supervised clinical experiences in area hospitals and health care facilities related on concepts presented in DMS 2092, DMS 2003, and DMS 2075. (0 theory hours/225 clinical hours)

DMS 2092 - Sonography II

2 credit hour(s)

(Corequisite: DMS 2003 + DMS 2075 + DMS 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 material structures including pertinent measurement techniques. (0 theory hours/90 lab hours)

DMS 2590 - General Sonography Internship

10 credit hour(s) (Prerequisites: DMS 2003 + DMS 2075 + DMS 2090 + DMS 2092) (Corequisite: DMS 2592)

Provides supervised clinical experiences within a health care setting. (0 theory hours/450 clinical hours)

DMS 2592 - Clinical Seminar

1 credit hour(s) (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. (0 theory hours/45 lab hours)

Diesel Equipment Technology

DETC 1110 - Introduction to Diesel Technology

4 credit hour(s) (Prerequisite: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement scores)

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 hours/75 lab hours)

DETC 1120 - Heavy Duty Brake Systems

4 credit hour(s) (Prerequisite: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement scores) (Pre- or corequisite: DETC 1110 or department approval)

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 hours/90 lab hours)

DETC 1130 - Heavy Duty Suspension and Steering

4 credit hour(s) (Prerequisite: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement scores) (Pre- or corequisite: DETC 1110 or department approval)

Presents theory, repair and service on a variety of heavy suspension and steering systems. Includes steering gear repair, power steering systems, kingpin service, air suspension systems and steering and axle alignment. (30 theory hours/90 lab hours)

DETC 1140 - Manual Shift Transmissions and Axles

4 credit hour(s) (Prerequisite: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement scores) (Pre- or corequisite: DETC 1110 or department approval)

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 hours/75 lab hours)

DETC 1150 - Diesel Equipment Electrical Systems

4 credit hour(s) (Prerequisite: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement scores) (Pre- or corequisite: DETC 1110 or department approval)

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 hours/90 lab hours)

DETC 1210 - Heavy Duty Engine Repair

4 credit hour(s) (Prerequisite: DETC 1110; or department approval.)

Presents internal combustion engine theory, engine components and designs, engine overhaul procedures and precision measurement. Includes essential engine testing and identification of needed repairs.
Note(s)
(30 theory + 90 lab hours per term.)

DETC 1220 - Automatic Transmissions and Hydraulics

4 credit hour(s) (Prerequisite: DETC 1110; or department approval.)

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.
Note(s)
(30 theory + 90 lab hours per term)

DETC 1230 - Medium/Heavy Duty Air Conditioning and Heating

3 credit hour(s) (Prerequisite: DETC 1110 + 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.
Note(s)
(15 theory + 75 lab hours per term)

DETC 1240 - Diesel Equipment Electronic Systems

4 credit hour(s) (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 2096-2996 - Special Topics

1-7 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

DETC 2110 - Preventive Maintenance

4 credit hour(s) (Prerequisite: DETC 1110; or department approval)

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.
Note(s)
(30 theory + 75 lab hours per term)

DETC 2120 - Diesel Engine Performance

4 credit hour(s) (Prerequisite: DETC 1240; or department approval)

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.
Note(s)
(30 theory + 90 lab hours per term)

DETC 2197 - Independent Study

1-7 credit hour(s) (Prerequisite: division approval)

Focuses on a specific problem while working with an instructor.

DETC 2198 - Diesel Equipment Internship

1 credit hour(s) (Pre- or corequisite: DETC 2120; or department approval)

Students will identify a diesel equipment repair facility, apply for an internship position, and complete a forty hour (one work week) internship. Provides real world shop experience during the student's last term in the certificate program.
Note(s)
(45 lab hours per term)

DETC 2999 - Diesel Equipment Technology Capstone Course

1 credit hour(s) (Prerequisite: division approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies.

Early Childhood Multicultural Education

ECME 1102 - Professionalism

2 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750 or appropriate placement scores)

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 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750 or appropriate placement scores)

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 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750 or appropriate placement scores)

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 through Play: Birth - Age 3

3 credit hour(s)

(Prerequisites: RDG 0750 + ENG 0750)

(Pre- or corequisite: ECME 1104) (Corequisite: ECME 1190)

This curriculum course focuses on developmentally appropriate content in early childhood programs. It addresses content that is relevant for children birth through age four and developmentally appropriate ways of integrating content into teaching and learning experiences.

ECME 1190 - Curriculum Development Through Play Practicum

2 credit hour(s) (Prerequisites: RDG 0750 + ENG 0750) (Pre- or corequisite: ECME 1104) (Corequisite: ECME 1109)

Provides opportunities for students to apply knowledge gained from ECME 1109 in a practicum setting. (45 hours per term) Students must pass a background check to sucessfully complete the course requirements.
Note(s)
45 theory + 45 lab hours

ECME 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ECME 2201 - Introduction to Reading and Literacy Development

3 credit hour(s) (Prerequisites: RDG 0950, ENG 0950;; or appropriate placement scores, see **Prerequisite Requirement Guide**.) (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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores, see **Prerequisite Requirement Guide**.) (Pre- or corequisite: ECME 1104)

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 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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores, see **Prerequisite Requirement Guide**.) 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:Age 3-Grade 3

3 credit hour(s) (Prerequisites: RDG 0950 + ENG 0950) (Pre- or corequisite: ECME 1104) (Corequisite: ECME 2290)

This course focuses on developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Emphasizes development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health, science, and social skills.

ECME 2214 - Guiding Young Children

3 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores, see **Prerequisite Requirement Guide**.) (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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores, see **Prerequisite Requirement Guide**.)

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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores, see **Prerequisite Requirement Guide**.) (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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores, see **Prerequisite Requirement Guide**.) (Corequisite: ECME 2590)

Addresses staff relationships that will foster diverse professional relationship 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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores, see **Prerequisite Requirement Guide**.) (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.

ECME 2232 - Family Infant Toddler Professionals Families and Communities

3 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 + ECME 2230 + ECME 2690 or appropriate placement scores) (Corequisite: ECME 2790)

This course is intended to develop a philosophical and ethical base for the Family, Infant, Toddler (FIT) entry-level practitioner. Students will develop professional skills in advocacy, policy, family and collegial relationship-building, and reflective practice.

ECME 2234 - Caregiving for Infants and Toddlers

3 credit hour(s) (Prerequisites: ECME 2230 + RDG 0950 + ENG 0950; or appropriate placement scores)

This course is intended to assist students in developing strong nurturing relationships with infants/toddlers in partnership with caregivers. Students will gain an understanding of how children learn in the context of the relationship with their primary caregivers, how to meet the needs of very young children (birth to three years of age) in a variety of care giving settings, and how to meet the needs of adults who are addressing the needs of very young children and their families, through relationship-based practices.

ECME 2250 - Foundations of Early Childhood Education

3 credit hour(s) (Prerequisites: 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 credit hour(s) (Prerequisites: 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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 that support early literacy development. Explores research-based early literacy activities such as a 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: Age 3-Grade 3 Practicum

2 credit hour(s) (Prerequisites: RDG 0950 + ENG 0950) (Corequisite: ECME 2212)

Provides opportunities for students to apply knowledge gained from ECME 2212 in a practicum setting. (45 hours per term) Students must pass a background check to successfully complete the course requirements.
Note(s)
45 theory + 45 lab hours

ECME 2390 - Early Childhood Classroom Field Experience

3 credit hour(s) (Prerequisites: 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.
Note(s)
160 contact hours

ECME 2490 - Effective Program Development for Diverse Learners and their Families Practicum

2 credit hour(s) (Prerequisite:RDG 0950 + ENG 0950 or appropriate placement scores) (Corequisite:ECME 2222)

Provides opportunities for students to apply knowledge gained from ECME 2222 in a practicum setting. Students must pass a background check to successfully complete the course requirements.
Note(s)
(1 theory + 1 lab hour per term)

ECME 2590 - Professional Relationships Practicum

2 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores) (Corequisite: ECME 2224)

Provides opportunities for students to apply knowledge gained from ECME 2224 in a practicum setting. Students must pass a background check to successfully complete the course requirements.
Note(s)
(1 theory + 1 lab hour per term)

ECME 2690 - Infant-Toddler Growth, Development and Learning Practicum

2 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores) (Corequisite: ECME 2230)

Provides application of knowledge gained from ECME 2230. Students must pass a background check to successfully complete the course requirements.
Note(s)
(1 theory + 1 lab hour per term)

ECME 2790 - Family Infant Toddler Professionals Practicum

2 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores) (Corequisite: ECME 2232)

Provides application of knowledge gained from ECME 2232. Students must pass a background check to successfully complete the course requirements. (1 theory hour/1 lab hour)

Earth and Planetary Science

EPS 1096-1996 - Special Topics

1-6 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Presents various topics.

EPS 1101 - Introduction to Geology

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores). In this physical geology course,

students will learn about the materials (rocks and minerals) that make up Earth and the processes that drive and shape our planet: how mountains are formed, how volcanoes erupt, and how water, wind, and ice can shape the landscape. This course will explore the Earth's 4.6 billion year history. EPS 1101 serves as an introduction to the geological sciences and is a prerequisite for advanced study in geology.

EPS 1192 - Introduction to Geology Laboratory

1 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores) (Pre- or co-requisite: EPS 1101) Introduction to Geology Laboratory is the lab component of EPS 1101 An Introduction to Geology. In this hands-on course, students will learn to identify samples of rocks and minerals, work with aerial photographs, topographic maps and geologic maps, and participate in a fieldtrip that ties many of the lab activities together.

Economics

ECON 1101 - Introduction to Economics

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores.)

Introduces the theories, history and relationships of economics.

ECON 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ECON 2200 - Macroeconomics

3 credit hour(s) (Prerequisite: RDG 0950, MATH 0930; or appropriate placement scores.)

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 credit hour(s) (Prerequisite: RDG 0950, MATH 0930; or appropriate placement scores.)

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.

ECON 2203 - Society and the Environment

3 credit hour(s) (Prerequisites: RDG 0950 + MATH 0930)

Introduces students to environmental and natural resource issues of both global and local scale. No prior economics coursework is required; basic economic tools will be introduced and then applied to a variety of environmental problems. This course will cover a variety of topics, including water & energy conservation, pollution taxes, tradable pollution permits and global warming.

Education

EDUC 1102 - Introduction to Teaching: Theory and Lab

4 credit hour(s) *RDG 0950 + ENG 0950.*

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)

EDUC 2090 - Math Education Field Experience

1 credit hour(s) (Co-requisites: MATH 1110 or MATH 1115 or MATH 2110)

Places students with math teachers in the K-8 local school setting to observe mathematics lessons. Students will then analyze the mathematics content they observe in these field settings in connection with the content of MATH 1110 or MATH 1115 or MATH 2110) (45 lab hours).
Note(s)
Repeatable for credit

EDUC 2096-2996 - Special Topics

1-5 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

EDUC 2097 - Independent Study

1-5 credit hour(s) (Prerequisite: department approval)

Studies a specific problem while working with assigned instructor.

EDUC 2190 - Supervised Field Experience

3 credit hour(s) (Prerequisites: 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 contract hours in an approved early childhood educational setting. Entails a separate application process.

EDUC 2203 - Introduction to Classroom Management Grades K-5

3 credit hour(s) (Prerequisites: RDG 0750, ENG 0750; or appropriate placement scores.)

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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; appropriate placement scores.)

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 credit hour(s) (Prerequisites: RDG 0950, ENG 0950; or appropriate placement scores.)

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.

EDUC 2207 - Educational Psychology

3 credit hour(s) (Prerequisites: ENG 0950 or appropriate placement scores.)

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 2222 - Literacy/Language Instruction for ESL Learners

3 credit hour(s) (Prerequisite: EDUC 2250 or department approval)

Provides an understanding of second language acquisition and develops a strong basis for instruction of literacy/ language to English as a Second Language learners in K-12 classrooms.

EDUC 2224 - ESL Across the Content Areas

3 credit hour(s) (Prerequisites: EDUC 2250 or department approval)

Provides an understanding of the goals, strategies and teaching techniques for effectively teaching content to ESL students in K-12 classrooms.

EDUC 2225 - Theories and Principles of Bilingual Education

3 credit hour(s) (Prequisites: EDUC 2222 + EDUC 2224 or department approval)

Focuses on the foundations of Bilingual Education/ESL in U.S. schooling with an emphasis on program models and issues in schooling for bilingual learners.

EDUC 2226 - Instructional Methods and Strategies for the Bilingual Classroom

3 credit hour(s)

(Pre- or co-requisite: EDUC 2225)

Develops knowledge of and use of theories, approaches, methods, and strategies for teaching literacy, biliteracy and other academic skills in English and the native language for elementary classrooms.

EDUC 2230 - Introduction to Gifted Education

3 credit hour(s) (Prerequisite: department approval)

Introductory course in the education of gifted students. Provides overview of current and historical issues in the field. Introduces intellectual, social, emotional, developmental, and educational characteristics of gifted students. Appropriate educational opportunities and programming are discussed. Designed for those students currently working in education.

EDUC 2231 - Curriculum for Gifted Learners

(Prerequisite: EDUC 2230)

Focuses on curriculum content, process, and product-evaluation modifications for gifted learners. Students will gain an understanding of various curriculum models to include the enrichment triad, multiple menu, autonomous learner, parallel curriculum, and integrated curriculum models. Students will develop curriculum and lesson plans to meet the needs of gifted education learners. Designed for those students currently working in education.

EDUC 2232 - Strategies for Teaching Gifted Learners

3 credit hour(s) (Prerequisite: EDUC 2230)

Presents differentiated instructional strategies for teaching gifted learners, including modifications in content, process, products and environment. Designed for those students currently working in education.

EDUC 2250 - Foundations of Education

3 credit hour(s) (Prerequisite: department approval)

Introduces educators to the historical, philosophical and social paradigms that define the modern teaching profession.

EDUC 2252 - Teaching and Learning Theory

3 credit hour(s) (Pre- or corequisite: EDUC 2250 or SPED 2250)

Reviews the social, emotional, physical and cognitive development of the child from birth through adolescence. Examines research 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 intelligence and learning styles.

EDUC 2260 - Emergent Literacy: PreK-Grade 3

3 credit hour(s) (Pre- or corequisite: EDUC 2250 or SPED 2250)

Focuses on the fundamentals of literacy development from birth through age eight. Emphasizes balanced methods, developmentally appropriate practice, phonemic awareness, phonics, comprehension, fluency, and vocabulary throughout the stages of literacy development. Students apply these understandings to reading instruction through methods and materials for diverse student populations.

EDUC 2262 - Intermediate Literacy: Grades 4-8

3 credit hour(s) (Prerequisite: EDUC 2260)

Focuses on the fundamentals of literacy development for children in the intermediate grades (4th-8th). Emphasizes balanced methods, phonics, comprehension, fluency, vocabulary, and content area literacy. Students apply these understandings to reading instruction though methods and materials for diverse student populations and intervention strategies for struggling readers.

EDUC 2264 - Reading and Writing across the Curriculum in Secondary Education

3 credit hour(s) (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. Students will explore and practice 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 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores, Recommended prerequisite: IT 1010)

Applies constructivist learning theory to educational technology. Examines the impact of technology on the changing role of the teacher. Appropriate for students with intermediate to advanced levels of computer literacy.

EDUC 2272 - The Adolescent Learner

3 credit hour(s) (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 credit hour(s) (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 credit hour(s) (Prerequisites: 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.

EDUC 2310 - Math Strategies for Elementary Teachers

3 credit hour(s) Pre-or corequisite: (EDUC 2250 or department permission)

Learn strategies and materials appropriate for teaching elementary school mathematics.

Electrical Trades

ELTR 1005 - Electrical Theory I

4 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement score) (Pre- or corequisite: ELTR 1015)

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 1015 - Electrical Math I

4 credit hour(s)

(Prerequisites: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement score) (Pre- or corequisite: ELTR 1005)

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.
Note(s)

60 theory hours

Previously ELTR 1010

ELTR 1020 - Electrical DC/AC Lab

3 credit hour(s)

(Prerequisites: ENG 0750 or appropriate placement score) (Pre- or corequisites: ELTR 1005 + ELTR 1015 or department approval) (Corequisite: ELTR 1030 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.
Note(s)

15 theory hours

90 lab hours

Previously ELTR 1092

ELTR 1030 - AC Circuity, Motors, Generators

3 credit hour(s) (Prerequisites: ENG 0750 or appropriate placement score) (Pre- or corequisites: ELTR 1005 + ELTR 1015 or department approval) (Corequisite: ELTR 1020 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.
Note(s)

15 theory hours

90 lab hours

Previously ELTR 1192

ELTR 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ELTR 1210 - Electrical Theory II

4 credit hour(s) (Pre- or corequisite: ELTR 1215 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 1215 - Blueprint Reading I

4 credit hour(s) (Pre- or corequisites: ELTR 1005 + ELTR 1015 + ELTR 1020 or department approval)

Provides instruction in reading and interpreting blueprints

and specifications. Emphasizes terminology, symbols, notations, scaling, dimensioning and basic blueprint drawing techniques.
Note(s)

60 theory hours

Previously ELTR 1205

ELTR 1220 - Residential Wiring Lab

3 credit hour(s) (Pre- or corequisites: ELTR 1215 + ELTR 1210 or department approval) (Corequisites: ELTR 1230 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.
Note(s)

15 theory hours

90 lab hours

Previously ELTR 1292

ELTR 1230 - Residential Electrical Services

3 credit hour(s) (Pre- or corequisites: ELTR 1215 + ELTR 1210 or department approval) (Corequisites: ELTR 1220 or department approval)

Presents the study and building of residential services, installation of circuit panels, hand bending and installation of EMT conduit in adherence to the National Electrical Code.
Note(s)

15 theory hours

90 lab hours

Previously ELTR 1392

ELTR 2005 - Electrical Theory III

4 credit hour(s) (Prerequisites: ELTR 1215 + ELTR 1210 + ELTR 1220 + ELTR 1230 or department approval)

Introduces commercial/industrial aspects of electrical safety, tools, materials, power distribution systems, services, hazardous locations and blueprint reading in accordance with the National Electrical Code.

ELTR 2015 - Electrical Motor Control Theory

4 credit hour(s) (Prerequisites: ELTR 1215 + ELTR 1210 + ELTR 1220 + ELTR 1230 or department approval)

Introduces students to the symbology and method of interpreting and drawing electromechanical motor control circuitry. NEMA standards are studied in detail.
Note(s)

60 theory hours

Previously ELTR 2010

ELTR 2020 - Industrial Motor Control Lab

3 credit hour(s) (Pre- or corequisite: ELTR 2005 + ELTR 2015 or department approval) (Corequisite: ELTR 2030 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.
Note(s)

15 theory hours

90 lab hours

Previously ELTR 2092

ELTR 2030 - Industrial Power Distribution

3 credit hour(s) (Pre- or corequisites: ELTR 2005 + ELTR 2015 or department approval) (Corequisites: ELTR 2020 or department approval)Previously ELTR

Covers safety, use of mechanical and hydraulic benders, use of power threaders, knock-out punches, hammer drills and power actuated fasteners, cable installation, wire pulling and the application of the NEC.
Note(s)

15 theory hours

90 lab hours

Previously ELTR 2192

ELTR 2096-2996 - Special Topics

1-7 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ELTR 2205 - Industrial Electrical Circuitry Safety

3 credit hour(s) (Prerequisites: ELTR 2015 + ELTR 2020 + ELTR 2030 or department approval)

Emphasizes safety principles and standards used in the electrical field and techniques for electrical troubleshooting.

ELTR 2210 - Programmable Logic Controller Theory

4 credit hour(s) (Pre- or corequisites: ELTR 2020 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 2220 - PLC Installation and Operation

3 credit hour(s) (Pre- or corequisites: ELTR 2210 + ELTR 2020) (Corequisites: ELTR 2230 or department approval)

Covers installation and programming of programmable logic controllers in accordance with manufacturer's specifications and NEC requirements. Covers stimulating fundamental industrial control processes with various input and output devices. (15 theory hours/90 lab hours)

ELTR 2230 - PLC Systems Operation and Troubleshooting

3 credit hour(s) (Pre- or corequisites: ELTR 2210 + ELTR 2020 or department approval) (Corequisites: ELTR 2220 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. (15 theory hours/90 lab hours)

ELTR 2610 - Photovoltaic Installation Safety

2 credit hour(s) (Pre- or corequisite: ELTR 1230 or department approval)

Safety aspects of electrical installations for photovoltaic worksites covering: Use of electrical meters, GFCI protection, LOTO, OSHA requirements, PPE, life saving equipment, fall protection, ladders, scaffolds, stairways, hazard communication, MSDS, and material handling. (30 theory hours/0 lab hours)

ELTR 2620 - Photovoltaic Theory/Design and Installation

3 credit hour(s) (Pre- or corequisite: ELTR 1230 + ELTR 2610 or department approval)

Photovoltaic installation topics and aspects of PV overview, electrical principles, solar resource, electrical load analysis, PV site analysis, PV design, PV components, PV system wiring, grid tie vs. stand alone systems, battery backup systems, installation considerations. (45 theory hours/0 lab hours)

ELTR 2630 - Advanced PV Theory /Design/ Installation/ Maintenance and Commissioning

4 credit hour(s) (Pre- or corequisites: ELTR 2620 or department approval)

Photovoltaic installation topics and aspects of: Safety, electrical lock out tag out, maximum system voltage, disconnects, series fusing, service panel connections, inverters, layout and mounting, grounding and ground fault/surge protection, system sizing, NEC considerations, commissioning and production analysis, maintenance and troubleshooting are covered in this course. (30 theory hours/90 lab hours)

ELTR 2692 - PV Installation Lab

3 credit hour(s) (Pre- or corequisite: ELTR 2630 or school approval)

Photovoltaic installation practices and safety are emphasized covering lockout tag out, testing high voltage, hazards, safety equipment, site safety, first aid, PV panel layout, pitch roof mounting systems, flat roof mounting systems, pole mount systems, disconnect installation, wiring sizing and installation, inverter installation, commissioning checklist. (0 theory hours/135 lab hours)

ELTR 2997 - Independent Study

1-7 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

ELTR 2999 - Electrical Trades Capstone Course

1 credit hour(s) (Pre- or corequisite: ELTR 2220 or ELTR 2692 or department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

Electrical Trades Apprenticeship

ETAP 1115 - Electrical Trades Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 layouts, National Electrical Code interpretation, tool usage and motor controls.

ETAP 1135 - Electrical Trades Apprenticeship

5-7 credit hour(s) (Current full-time employment in the electrical trades industry or department approval required.)

Provides 75-105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor control.

ETAP 1215 - Electrical Trades Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 1235 - Electrical Trades Apprenticeship

5-7 credit hour(s) (Current full-time employment in the electrical trades industry or department approval required.)

Provides 75-105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor control.

ETAP 1315 - Electrical Trades Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 1335 - Electrical Trades Apprenticeship

5-7 credit hour(s) (Current full-time employment in the electrical trades industry or department approval required.)

Provides 75-105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor control.

ETAP 1415 - Electrical Trades Apprenticeship

5-7 credit hour(s) (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 1425 - Electrical Trades Apprenticeship

5-7 credit hour(s) (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 1435 - Electrical Trades Apprenticeship

5-7 credit hour(s) (Current full-time employment in the electrical trades industry or department approval required.)

Provides 75-105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor control.

ETAP 1515 - Electrical Trades Apprenticeship

5-7 credit hour(s) (Current full-time employment in the electrical trades industry or department approval required.)

Provides 75-105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor control.

ETAP 1525 - Electrical Trades Apprenticeship

5-7 credit hour(s) (Current full-time employment in the electrical trades industry or department approval required.)

Provides 75-105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor control.

ETAP 1535 - Electrical Trades Apprenticeship

5-7 credit hour(s) Current full-time employment in the electrical trades industry or department approval required.

Provides 75-105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor control.

Electronics

ELEC 1002 - Survey of Advanced Technologies Career Pathways

1 credit hour(s) Overview of the Advanced/Emerging Technologies Industry: Sectors, Jobs, Technology and Trends.

ELEC 1004 - DC and AC Circuits

4 credit hour(s) (Pre- or corequisite: ELEC 1092)

This course covers the basic concepts of DC and AC electronics with emphasis on Ohm's Law, Kirchhoff's Law, power, magnetism and electromagnetism, with emphasis on circuit analysis, component application and troubleshooting. Construct circuits from schematic diagrams and use of multimeters, oscilloscopes, function generators and power supplies in the lab to support concepts taught in class. Introduction and use of circuit simulation software (Multisim) to build, simulate, test, and troubleshoot fundamental electronic circuits.

ELEC 1022 - Soldering Standards

2 credit hour(s) Industry standard soldering techniques for high reliability connections. Soldering certification is covered.
Note(s)

15 theory hours

45 lab hours

ELEC 1092 - DC and AC Circuits Lab

2 credit hour(s) (Pre- or corequisite: ELEC 1004)

Laboratory exercises designed to reinforce the concepts from ELEC 1004.
Note(s)

90 lab hours

ELEC 1096-1996 - Special Topics

1-7 credit hour(s) Presents various topics.
Note(s)
all courses ending in 96 are special topics.

ELEC 1101 - Digital Circuits Concepts and Design

3 credit hour(s) (Corequisite: ELEC 1192)

Covers the fundamentals of Digital logic, and FPGAs. Building/troubleshooting digital electronics devices and circuits with emphasis on components using the FPGA and VHDL coding. Project Design, Synthesis, Behavioral Simulation, and Configuration of Hardware Devices are the main processes of the class to program digital gates, combinational logic circuits, and basic digital devices (counters, shift registers, DAC, etc.)

ELEC 1192 - Digital Circuit Concepts and Design Lab

2 credit hour(s) (Corequisite: ELEC 1101)

Laboratory exercise designed to reinforce the concepts from ELEC 1101.
Note(s)

90 lab hours

ELEC 1202 - Semiconductor/Solid State Devices

3 credit hour(s) (Prerequisite: ELEC 1004 + ELEC 1092)

(Corequisite: ELEC 1292)

This course will cover the following components/devices and their application: Diodes, Transistors, Operational Amplifiers, MOSFETs, Integrated Circuits, Switching Power Supplies, DC-DC Converters, Inverters. Includes measurement, conversion/control, troubleshooting electronic circuits with emphasis on Integrated Circuits.

ELEC 1292 - Semicon/Ssdev Lab

2 credit hour(s) (Corequisite: ELEC 1202)

Laboratory exercise designed to reinforce the concepts from ELEC 1202.
Note(s)

90 lab hours

ELEC 1301 - Electromechanical Devices & Systems

3 credit hour(s) (Prerequisite: ELEC 1202, ELEC 1292.) (Corequisite: ELEC 1393)

Presents theory and application of mechanical devices and their control circuits. Includes hydraulics, pneumatics, PLCs, AC and DC and VFD motors, stepper motors and servomechanisms. Students design, assemble, operate and troubleshoot electromechanical systems.

ELEC 1393 - Electromechanical Devices & Systems Lab

2 credit hour(s) (Pre- or corequisite: ELEC 1301)

Laboratory exercise designed to reinforce the concepts from ELEC 1301.
Note(s)

90 lab hours

ELEC 1401 - Telecommunications Circuits & Systems

3 credit hour(s) (Prerequisite: ELEC 1202, ELEC 1301.) (Corequisite: ELEC 1492)

This course covers tuned amplifiers, oscillators, optoelectronic devices, AM/FM & Single-Sideband communications. Coding techniques, Transmission lines, Antennas, Waveguides and RADAR, Television.

ELEC 1492 - Telecommunications Circuits & Systems Lab

2 credit hour(s) (Corequisite: ELEC 1401)

Laboratory exercise designed to reinforce the concepts from ELEC 1401.
Note(s)

90 lab hours

ELEC 2010 - Intro/Embedded Sys

4 credit hour(s) (Prerequisite: ELEC 1202 + ELEC 1292)

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).
Note(s)
30 theory + 90 lab hours

ELEC 2020 - Upgrading and Repairing PCs

3 credit hour(s) 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.
Note(s)
30 theory + 45 lab hours

ELEC 2025 - Advanced Upgrading and Repairing PCs

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

ELEC 2040 - Systems Simulation

3 credit hour(s) (Prerequisite: ELEC 1301 + ELEC 1393 + ELEC 2010)

Electronics Test Equipment and Systems, Block Diagram & Signal Flow Analysis. Use of Simulation Software to teach design and troubleshooting.
Note(s)

30 theory hours

45 lab hours

ELEC 2095 - Cooperative Education

3 credit hour(s) (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 2096-2996 - Special Topics

1-8 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ELEC 2097 - Independent Study

1-7 credit hour(s) (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 credit hour(s) (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.

ELEC 2999 - Capstone

2 credit hour(s) (Pre- or corequisite: ELEC 1401 + ELEC 1492 + ELEC 2010)

Capstone projects course.
Note(s)

15 theory hours

45 lab hours

Elementary Education

ELEM 1189 - The Paraprofessional in the Classroom

2 credit hour(s) Provides students with the practical and theoretical knowledge of the role of the educational paraprofessional.

Emergency Medical Technician

EMS 1001 - EMS First Responder Theory

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores) (Pre- or corequisite: HLTH 1001) (Corequisite: EMS 1091)

Provides the level of classroom instruction needed to assist in patient emergencies in the workplace and non-transport settings. Some fire services allow First Responder certification as a minimum requirement for employment; most prehospital EMS services require EMT-Basic licensure. 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 National EMS Education Standards and incorporates the NM First Responder Scope of Practice.
Note(s)

This course is NOT a pre- or corequisite for any other level of EMS training at CNM

EMS 1053 - EMT Basic Theory

6 credit hour(s) (Prerequisite: RDG 0950 + MATH 0930 or appropriate placement scores) (Pre- or corequisite: HLTH 1001 + ENG 1101) (Corequisite: EMS 1093 + EMS 1190)

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 National EMS Education Standards and incorporates the NM EMT-Basic Scope of Practice.

EMS 1091 - EMS First Responder Lab

1 credit hour(s) (Corequisite: EMS 1001)

Students will be introduced to a variety of First Responder emergency skills and patient assessment strategies. (0 theory hours/45 lab hours)
Note(s)
This course is NOT a pre- or corequisite for any other level of EMS training at CNM

EMS 1092 - EMS Basic Supplemental Skills Lab (CR/NC)

1 credit hour(s)

(Pre- or Corequisite: EMS 1093)

Provides EMT-Basic students the opportunity for additional supervised learning and practice of EMS skills and patient assessment strategies in the campus laboratory. Reinforces topics in preparation for state licensure and national certification EMS exams.

Note(s)

45 lab hours

provide students opportunity for additional learning and practice of EMS skills and patient assessment strategies in the campus laboratory before going into the clinical setting.

EMS 1093 - EMT Basic Lab

2 credit hour(s) (Corequisite: EMS 1053 + EMS 1190)

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 National EMS Education Standards 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)

EMS 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

EMS 1190 - EMT Basic Clinical

1 credit hour(s) (Corequisite: EMS 1053 + EMS 1093)

Provides practice of basic skills in a clinical setting. At the completion of the basic course series students are eligible to take the State of New Mexico EMT Basic licensure examination. Current proof of healthcare provider CPR certification and proof of health insurance is required for this course. Program fee required.
Note(s)

45 clinical hours

EMS 1412 - Advanced EMT (EMT-I) Theory

6 credit hour(s) (Prerequisite: EMS 1053 + EMS 1093 + EMS 1190 or EMS 1010 (2007-09) + RDG 0950 or appropriate placement scores + department approval) (Pre- or corequisite: MATH 1210 or higher) (Corequisite: EMS 1493)

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 of IV fluid resuscitation. Meets or exceeds the cognitive objectives of the National EMS Education Standards and incorporates the NM EMT- Intermediate Scope of Practice.

EMS 1493 - Advanced EMT (EMT-I) Lab

2 credit hour(s) (Prequisite: Department Approval) (Corequisite: EMS 1412)

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 National EMS Education Standards and incorporates the NM EMT-Intermediate Scope of Practice.
Note(s)

90 lab hours

EMS 1715 - First Responder, EMT-B, and EMT-I Refresher

2 credit hour(s) This is a State of New Mexico approved course. It meets the refresher requirements for First Responder, EMT-Basic and EMT-Intermediate licensure renewal. Additionally, this course meets NREMT refresher requirements for First Responder and EMT-Basic certification renewal. Hours in excess of refresher

requirements will be awarded CE credit. Students must be licensed EMS providers.
Note(s)

Meets the refresher requirements for EMS licensure renewal at the First Responder, EMT-Basic, EMT-Intermediate and Paramedic levels

EMS 1890 - Advanced EMT (EMT-I) Clinical

2 credit hour(s) (Prerequisite: EMS 1412 + EMS 1493 + department approval)

Provides practice of intermediate skills in a clinical setting. At the completion of the advanced EMT 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 and proof of health insurance are required. Program fee required.
Note(s)

90 clinical hours

EMS 2092 - EMS Advanced Supplemental Skills Lab (CR/NC)

1 credit hour(s)

(Pre or Corequisite: EMS 1493 or EMS 2293)

Provides EMT-Intermediate and Paramedic students opportunity for additional learning and practice of advanced EMS skills and patient assessment strategies in the campus laboratory before going into the clinical setting. Additional IV skills practice may be required. Reinforces topics in preparation for state licensure and national certification EMS exams. Current EMT-B (or higher) New Mexico State License or NREMT certification required.

Note(s)

45 lab hours

EMS 2093 - Vehicle Extrication (CR/NC)

1 credit hour(s) (Prerequistes: EMS 1190 or EMS 1890 or FS 1010 + department approval)

Provides training in the methods of vehicle extrication which meets Department of Transportation (DOT), National Fire Protection Association (NFPA) and International Fire Service Training Association (IFSTA) standards for Basic Vehicle Extrication. The emphasis of this course is hands on application of the tools in a lab environment. The EMS Program has a limited quantity bunker gear (safety equipment), students may be asked to provide their own safety equipment in some cases.
Note(s)

45 lab hours

EMS 2103 - Human Systems Pathophysiology and Development

3 credit hour(s) (Prerequiste: BIO 1410 + EMS 1190 or EMS 1890 + department approval)

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 National EMS Education Standards and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2203 - Drug Calculations

1 credit hour(s) (Prerequisite: BIO 1410 + EMS 1190 or EMS 1890 + ENG 1101 or ENG 1102 or ENG 1119 + IT 1010 + MATH 1210 or higher + PSY 1105 + department approval) (Corequisite: EMS 2207 + EMS 2213 + EMS 2217 + EMS 2223 + EMS 2291)

This course presents 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 National EMS Education Standards and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2207 - Legal Issues and Report Writing

2 credit hour(s) (Corequisite: EMS 2203 + EMS 2213 + EMS 2217 + EMS 2223 + EMS 2291)

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.

EMS 2213 - Endocrine and GI/GU Theory

1 credit hour(s) (Corequisite: EMS 2203 + EMS 2207 + EMS 2217 + EMS 2223 + EMS 2291)

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.

EMS 2217 - Pharmacology Theory

3 credit hour(s) (Corequisite: EMS 2203 + EMS 2207 + EMS 2213 + EMS 2223 + EMS 2291)

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 National EMS Education Standards and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2223 - Advanced Trauma Theory

3 credit hour(s) (Corequisite: EMS 2203 + EMS 2207 + EMS 2213 + EMS 2217 + EMS 2291)

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 National EMS Education Standards, Prehospital Trauma Life Support and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2291 - Intro Paramedic Lab

2 credit hour(s) (Corequisite: EMS 2203 + EMS 2207 + EMS 2213 + EMS 2217 + EMS 2223)

Provides the level of classroom instruction needed to provide advanced care for patients in a clinical setting. Includes instruction on advanced airway management, medication administration, IV fluid resuscitation, and patient assessment. Meets or exceeds the cognitive objectives of the National EMS Education Standards, Prehospital Trauma Life Support and incorporates the NM EMT-Paramedic Scope of Practice. (90 Lab Hours)

EMS 2303 - Cardiovascular Theory

3 credit hour(s) (Prerequisite:EMS 2103 or BIO 2310 + EMS 2203 + EMS 2207 + EMS 2213 + EMS 2217 + EMS 2223 + EMS 2291) (Pre- or corequisite: EMS 2307, EMS 2313, EMS 2390, EMS 2393, EMS 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 National EMS Education Standards, Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS) and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2307 - Respiratory Theory

2 credit hour(s) (Prerequisite: departmental approval). (Pre- or corequisite: EMS 2303, EMS 2313, EMS 2390, EMS 2393, EMS 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 credit hour(s) (Prerequisite: departmental approval). (Pre- or corequisite: EMS 2303, EMS 2307, EMS 2390, EMS 2393, EMS 2490)

Provides the level of classroom instruction needed to provide advanced care for neurological patients. Meets or exceeds the cognitive objectives of the National EMS Education Standards and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2380 - Clinical Review I (CR/NC)

1 credit hour(s) (Corequisite: EMS 2390 + EMS 2490)

This course allows time for clinical case review in a classroom setting. Patient assessment strategies, skill performance, and documentation will be reviewed. The course will address patients of all age groups with various medical or traumatic conditions. This course will have an adult focus.

EMS 2390 - Hospital Clinical I

2 credit hour(s)

(Prerequisite: departmental approval). (Pre- or corequisite: EMS 2303, EMS 2307, EMS 2313, EMS 2393, EMS 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. (Criminal background/ drug check required)

90 clinical hours

EMS 2393 - Paramedic Lab I

3 credit hour(s)

(Prerequisite: departmental approval). (Pre- or corequisite: EMS 2303, EMS 2307, EMS 2313, EMS 2390, EMS 2490)

Students will practice simulated patient care related to second and third semester paramedic courses. Students will develop treatment strategies to manage various medical and trauma emergencies. Meets or exceeds the psychomotor objectives of the National EMS Education Standards, Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS).

135 Hours Lab

EMS 2490 - Prehospital Field Clinical I

3 credit hour(s)

(Prerequisite: departmental approval). (Pre- or corequisite: EMS 2303, EMS 2307, EMS 2313, EMS 2390, EMS 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.

135 Hours Clinical

EMS 2503 - Pediatric and Gynecology Theory

3 credit hour(s) (Prerequisite: EMS 2303, EMS 2307, EMS 2313, EMS 2390, EMS 2393 , EMS 2490, EMS 2490.) (Pre- or corequisite: EMS 2507, EMS 2513, EMS 2590, EMS 2593, EMS 2690, EMS 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 National EMS Education Standards, 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 credit hour(s) (Pre- or corequisite: EMS 2503, EMS 2513, EMS 2590, EMS 2593, EMS 2690, EMS 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 National EMS Education Standards.

EMS 2513 - Behavioral Emergencies and Communication

1 credit hour(s) (Pre- or corequisite: EMS 2503, EMS 2507, EMS 2590, EMS 2593, EMS 2690, EMS 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 National EMS Education Standards.

EMS 2580 - Clinical Review II (CR/NC)

1 credit hour(s) (Corequisite: EMS 2590 + EMS 2690)

This course allows time for clinical case review in a classroom setting. Patient assessment strategies, skill performance, and documentation will be reviewed. The course will address patients of all age groups with various medical or traumatic conditions. This course will have a pediatric focus.

EMS 2590 - Hospital Clinical II

1 credit hour(s)

(Pre- or corequisite:EMS 2503, EMS 2507, EMS 2513, EMS 2593, EMS 2690, EMS 2999)

This course provides students with clinical time in local hospitals to administer medications, perform airway skills, performs venous access, and assess patients of all age groups with various medical or traumatic conditions. This clinical will have a pediatric focus.

45 Hours Clinical

EMS 2593 - Paramedic Lab II

2 credit hour(s)

(Pre- or corequisite: EMS 2503 EMS 2507 , EMS 2513, EMS 2590, EMS 2690, EMS 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 National EMS Education Standards, and Pediatric Advanced Life Support (PALS) and Pediatric Emergencies for Prehospital Providers (PEPP).

90 Hours Lab

EMS 2690 - Prehospital Field Clinical II

4 credit hour(s)

(Pre- or corequisite: EMS 2503, EMS 2507 EMS 2513, EMS 2590, EMS 2593, EMS 2999)

Prepares the paramedic students 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.

180 Hours Clinical

EMS 2715 - Paramedic Refresher

2 credit hour(s) This is a State of New Mexico approved course. It meets the refresher requirements for EMT-Paramedic licensure renewal. Additionally, this course meets NREMT refresher requirements for EMT-Paramedic certification renewal. Hours in excess of refresher requirements will be awarded CE credit. Students must be licensed paramedics.
Note(s)

Meets the refresher requirements for EMS licensure renewal at the First Responder, EMT-Basic, EMT-Intermediate and Paramedic levels

15 theory hours

45 lab hours

EMS 2999 - Paramedic Capstone

1 credit hour(s)

(Pre- or corequisite: EMS 2503, EMS 2507 EMS 2513, EMS 2590, EMS 2593, EMS 2690)

The final lab course is for the paramedic student to prepare for the 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 Hours Lab

Engineering

ENGR 1010 - Survey of Engineering Fields

1 credit hour(s) (Prerequisite: RDG 0950, MATH 1310; or appropriate placement score)

Introduces the engineering design process and exploration of careers in engineering.

ENGR 2088 - Engineering Specialty

1-16 credit hour(s) 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 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ENGR 2710 - Thermodynamics

3 credit hour(s) (Prerequisites: CHEM 1810/CHEM 1892, MATH 1715 and 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 credit hour(s) (Prerequisites: PHYS 1710 + 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 credit hour(s) (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

3 credit hour(s) (Prerequisites: CSCI 1151 or CSCI 1152 or CSCI 1153) (Pre- or corequisite: PHYS 1810 + MATH 2910)

This course introduces the following concepts: basic elements and sources, energy and power, Ohm's law and Kirchhoff's laws, resistive networks, node and loop analysis, sinusoidal sources and complex representations and three phase circuits.

ENGR 2915 - Circuit Analysis II

3 credit hour(s) (Prerequisite: ENGR 2910 and 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.

English

Courses below the 1000-level - School of Adult & General Education

Couses 1000-level and above - School of Communication, Humanities & Social Sciences

ENG 0196-0996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ENG 0550 - Basic Writing and Reading Skills

3 credit hour(s) (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.
Note(s)
45 theory + 15 lab hours

ENG 0750 - Practical Writing

3 credit hour(s) (Prerequisite: ENG 0550 or appropriate placement scores).

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.
Note(s)
45 theory + 15 lab hours

ENG 0950 - Essay Writing

3 credit hour(s) (Prerequisite: ENG 0750 or appropriate placement scores).

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.
Note(s)
45 theory + 15 lab hours

ENG 1101 - College Writing

3 credit hour(s) (Prerequisite: ENG 0950, RDG 0950; or appropriate placement scores.)

Emphasizes text-based essay composition, including critical reading, summary writing and synthesis.

ENG 1102 - Analytic and Argumentative Writing

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores).

Emphasizes analytic and argumentative writing with reading and research in exposition and literature.

ENG 1119 - Technical Communications

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores).

Introduces study of written and verbal communication in business and industry.

ENG 1150 - Study Of Literature

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Introduces the academic study of literature.

ENG 2096-2996 - Special Topics in Literature

3 credit hour(s) (Prerequisite: ENG 1101 or Accuplacer Sentence Skills score of 110 or equivalent, or permission of instructor)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ENG 2206 - Popular Literature: Detective Novel

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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."

ENG 2209 - Popular Literature: Western

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Presents study of film as visual literature, surveying major trends in the history of film.

ENG 2213 - Film Genres: Comedy

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1102)

Emphasizes writing in industry, research laboratories, business and other professional settings.

ENG 2220 - Expository Writing

3 credit hour(s) (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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Introduces fiction writing as a creative process.

ENG 2222 - Creative Writing: Poetry

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Introduces poetry writing as a creative process.

ENG 2240 - Traditional Grammar

3 credit hour(s) (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 credit hour(s) (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 credit hour(s) (Prerequisite: ENG 1101 or appropriate scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Introduces study of Shakespeare's work: sonnets, tragedies, comedies and histories. Fall only.

ENG 2262 - Survey of Earlier World Literature

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores or department approval)

Surveys poetry, fiction and drama from primarily non-English cultures: ca. 1650 to present. Spring only.

ENG 2270 - Modern Literature

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Surveys American and European literature of the 20th century.

ENG 2282 - Modern Latin American Literature

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Survey British literature from Old English to 1798. Fall only.

ENG 2285 - Survey of Later English Literature

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate

placement scores; or department approval)

Surveys English literature from the late 18th century to the present. Spring only.

ENG 2287 - Earlier American Literature

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Introduces short stories, poetry, drama and nonfiction from colonial U.S. to 1865.

ENG 2288 - Later American Literature

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Continues study of American literature begun in ENG 2287. Focuses on short stories, poetry, drama, the novel and nonfiction from the 1865 to the present.

English as a Second Language

For ESL credit courses, see ESOL here.

ESL 0250 - ESL Literacy

0 credit hour(s) 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

0 credit hour(s) Develops English language skills with an emphasis on pronunciation practice, listening comprehension, conversation and basic grammar.

ESL 0450 - Low Intermediate ESL

0 credit hour(s) 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 0500 - Integrated ESL

0 credit hour(s) 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

0 credit hour(s) 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 0550 - High Intermediate ESL

0 credit hour(s) 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 0600 - Citizenship

0 credit hour(s)

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.

ESL 0650 - Low Advanced ESL

0 credit hour(s) Covers English conversation, writing, reading and evaluation of materials and study of advanced grammar in meaningful, communicative contexts.

ESOL 0196-0996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ESOL 0350 - Advanced Listening and Speaking Skills for Speakers of Other Languages

3 credit hour(s) Provides speakers of other languages the opportunity to develop listening and speaking skills in an academic setting. Students will practice note-taking skills, identify key points in a presentation or lecture, participate in academic discussions and debates, complete short oral presentations, and improve pronunciation. (60 hours per term)

ESOL 0450 - Introduction to College English for Speakers of Other Languages

3 credit hour(s) Recommended prerequisite: ESL 0650

Provides speakers of other languages the opportunity to develop language and self-advocacy skills for success in college and the workplace.

ESOL 0551 - Basic Reading/Writing Skills for Speakers of Other Languagesl

3 credit hour(s) (Recommended prerequisite: Completion of CNM's Adult Basic Education ESL Program + ESOL 0450. Prerequisite: Accuplacer Reading scores between 0-58 + Accuplacer Sentence Skills score between 0-52 or equivalent.)

ESOL 0751 - Practical Writing for Speakers of Other Languages

3 credit hour(s) (Prerequisite: ENG 0550 or ESOL 0551 or appropriate placement scores.)

Provides speakers of other languages the opportunity to complete 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.

ESOL 0951 - Essay Writing for Speakers of Other Languages

3 credit hour(s) (Prerequisite: ENG 0750 or ESOL 0751 or appropriate placement scores.)

Prepares speakers of other languages 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.

ESOL 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

ESOL 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

Occupational Safety and Health

OSH 2006 - Occupational Safety for Construction I

1 credit hour(s) 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 Department of Labor card acknowledging completion of the 10-hour awareness course for 29 CFR 1926.

OSH 2009 - Occupational Safety for Construction II

2 credit hour(s) 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 Department of Labor card acknowledging completion of the 30-hour awareness course for 29 CFR 1926.

OSH 2016 - Occupational Safety I

1 credit hour(s) 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.

OSH 2017 - Occupational Safety II

1 credit hour(s) 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.

OSH 2018 - Occupational Safety III

1 credit hour(s) 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 OSH 2016, OSH 2017 and ESH 2018.

OSH 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics)

Film

FILM 1001 - Intro to Film and Media Workflow

3 credit hour(s) (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 - Basic Film/Media Production

3 credit hour(s) (Corequisite: FILM 1001 + FILM 1015 + FILM 1110)

Exploring the various crafts and skills of the below the line "component of the film industry".
Note(s)

30 theory hours

45 lab hours

A catalog change was made per catalog corrections team.

FILM 1007 - Pre-Visualization and Storyboarding

3 credit hour(s) (Prerequisite: FILM 1020 + IT 1010)

Students will create rough images of shots for movie sequences using standard storyboarding techniques and pre-Viz" software."
Note(s)
30 theory + 45 lab hours

FILM 1009 - Post Production and Editing

4 credit hour(s) (Prerequisite: FILM 1292 + IT 1010)

Students will be introduced to industry-standard post-production techniques and editing techniques and software.
Note(s)
30 theory + 45 lab hours

FILM 1015 - Film On-Set

4 credit hour(s) (Corequisite: FILM 1001 + FILM 1003 + FILM 1110)

Students will receive both lecture and hands-on instruction focused on the production of film and electronic media projects in studio settings. Skill areas will include: lighting, sound, camera operation hair, make-up, wardrobe, grip, art, script supervision.
Note(s)

45 theory hours

45 lab hours

Previously FILM 1092

A catalog change was made per catalog corrections team.

FILM 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

FILM 1110 - Film Location

4 credit hour(s) (Corequisite: FILM 1001 + FILM 1003 + FILM 1015)

Students will receive both lecture and hands-on instruction focused on the production of film and electronic media projects in remote or on-location settings. Skill areas will include: lighting, sound, camera operation hair, make-up, wardrobe, grip, art, scrip supervision, location scouting and management.
Note(s)

45 theory hours

45 lab hours

Previously FILM 1192

A catalog change was made per catalog corrections team.

FILM 1210 - Production Planning

3 credit hour(s) (Prerequisite: FILM 1110)

Students will develop skills related to the planning and pre-production process on film and other electronic media projects. Planning concepts include script development, location scouting, scheduling, budgeting.
Note(s)

30 theory hours

45 lab hours

FILM 1220 - Pre-Production

4 credit hour(s) (Prerequisite: FILM 1110)

Students will develop skills related to the pre-production process on film and other electronic media projects. Planning concepts include script breakdown, casting, securing locations, crew designations, scheduling, budgeting.
Note(s)

45 theory hours

45 lab hours

FILM 1230 - Production

4 credit hour(s) Prerequisite: FILM 1110

Students will develop skills related to the production process on film and other electronic media projects. Production concepts include: story board, day-to-day scheduling, project management, equipment scheduling, location, crew and actor scheduling, and shooting schedules.
Note(s)

45 theory hours

45 lab hours

FILM 1240 - Post-Production

3 credit hour(s) (Prerequisite: FILM 1110)

Students will develop skills related to the post-production process on film and other electronic media projects. Post-Production concepts include: selection and scheduling of editor, data capture and management, convergence of script supervisor, sound mixer and story board materials, dailies, rough cut, schedule, budgeting.
Note(s)

30 theory hours

45 lab hours

FILM 1292 - Camera work for Editors

3 credit hour(s) (Prerequisite: FILM 1110)

Students will perform as camera operators in order to understand the vision" that the project's creator had in mind. The experience enhances the Editor's decision making during post-production."

FILM 1315 - Storyboarding

2 credit hour(s) (Prerequisite: FILM 1110)

Introduces concepts required to create a narrative element related to production of projects in various forms of electronic media. The process includes conceptualization, planning, structure, workflow and use of software. Write it, show it, picture it. (20 theory hours/30 lab hours)

FILM 1325 - Camera Operation

2 credit hour(s) (Prerequisite: FILM 1110)

A hands-on course that focuses on industry standard digital camera operation. The course will cover both the technology and procedures related to camera operation and the use and development of cinematography and technique. (15 theory hours/45 lab hours)

FILM 1335 - Post Production Editing

3 credit hour(s) (Prerequisite: FILM 1110)

A lab-based course that focuses on industry standard post-production processes, techniques and software applications. Learning experiences are project based.
Note(s)

30 theory hours

45 lab hours

FILM 1345 - Sound Recording and Design

2 credit hour(s) (Prerequisite: FILM 1110)

The course focuses on the technical and creative principles of electronic media and sound capture, post-production and sound design for a variety of electronic media platforms. (15 theory hours/45 lab hours)

FILM 1390 - Professional Portfolio

2 credit hour(s) (Prerequisite: department approval)

A capstone course in which students will prepare a professional portfolio of their work and submit to critique by industry professionals. Basic skills related to networking, resume preparation, entrepreneurship and project management will also be stressed.
Note(s)

30 theory hours

FILM 1392 - Editing Project

3 credit hour(s) (Pre- or corequisite: FILM 1292)

Students will gain practical experience by editing and re-editing various projects to accomplish the Director's vision.
Note(s)
90 lab hours

FILM 2095 - Cooperative Education

1-12 credit hour(s) (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 2096-2996 - Special Topics

1-12 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FILM 2097 - Independent Study

1-12 credit hour(s) (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 credit hour(s) (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.

Financial Services

FIN 1010 - Financial Literacy Complete

3 credit hour(s) (Recommended prerequisites: ENG 0950 + RDG 0950)

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 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FIN 1100 - Principles of Banking

3 credit hour(s) Surveys major aspects of banking from the fundamentals of negotiable instruments to contemporary issues.

FIN 1310 - Fundamentals of Risk Management and Insurance

3 credit hour(s) Explores the business and personal exposures to risk and the concepts and methods of minimizing and insuring against those risks.

FIN 2095 - Cooperative Education

3 credit hour(s) (Prerequisites: ACCT 1112 + FIN 1100 and department approval)

Provides students the opportunity to work a minimum of 135 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.
Note(s)

135 lab hours

FIN 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FIN 2097 - Independent Study

1-6 credit hour(s) (Prerequisite: department approval)

Allows student and instructor to define 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

3 credit hour(s) (Prerequisites: ACCT 1112 + FIN 1100 and department approval)

Provides students the opportunity to work a minimum of 135 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.
Note(s)

135 lab hours

FIN 2210 - Finance

3 credit hour(s) (Prerequisites: 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.

Fire Science

FS 1010 - Introducton to Fire Science

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 1096-1996 - Special Topics

1-6 credit hour(s) (Prerequisite: department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FS 1504 - Wildland Firefighting

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or 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 Structures Defense certification.

FS 1512 - Building Construction

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or 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 1544 - Fire Service Instructor I

3 credit hour(s) This 45 hour course is designed to train the student as outlined in NNFPA 1041 Fire service Professional Qualifications. Course includes IFSAC Certification, It will teach instructors and trainers how to organize and teach a course effectively using existing lesson plans. Upon successful completion of this course, the student will be able to make an effective classroom presentation based on appropriate lesson plans.

FS 1817 - Wildland Emphasis

3 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 + MATH 0930 or appropriate placement score) (Pre- or corequisite: FS 1504)

This course will provide students with beginning and intermediate incident command system functions and responsibilities. The course will include I-200 (consisting of 5 modules) and I-300 (consisting of 5 modules) I-200 will provide students with knowledge in incident management, organization, development incident facilities, resources and common responsibilities. I-300 will provide students with intermediate training in staffing, organization, resource management air operations and planning. This course will also include "all risk" training.

FS 1820 - Hazardous Materials Awarness and Operations

3 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 + MATH 0930 or appropriate placement score or department approval)

This course will fulfill the prerequisite classes for the Core Firefighter I. This course is designed to train the student to Awareness and Operations Level as outlined in NFPA 472 Standard for Competence of Responders to hazardous materials/Weapons of Mass destruction Incidents and OSHA 29 CFR 1910.120. Course includes IFSAC Certification.

FS 2001 - Fire Protection Systems

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or 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 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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.

FS 2008 - Fire Protection Hydraulics and Water Supply

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or 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 to solve water supply problems.

FS 2015 - Firefighter I

5 credit hour(s) (Pre- or corequisite: HLTH 1001 + FS 1817 + FS 1820 + 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 hours/90 lab hours)

FS 2095 - Cooperative Education

3 credit hour(s) Employs students at an approval program-related worksite and applies learned theory based upon goals/objectives of the Fire Science program.

FS 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisite: department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FS 2098 - Internship

3 credit hour(s) (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 credit hour(s) (Prerequisite: FS 2003 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 Operations level. Students will receive a national IFSAC certification.
Note(s)
(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.)

FS 2402 - Managing Community Fire Protection

3 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 the fire service.

FS 2416 - Command Strategy and Tactics I

1 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or

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 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or department approval)

Covers specific incident management techniques including basic fire ground operations involving high occupancy use and mass casualty incidents.

FS 2422 - Fire Behavior and Combustion

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950 or appropriate placement score)

Explores the theories and fundamentals of how and why fires start, spread and how they are controlled.

FS 2530 - Fire Officer 1

(Prerequisite: department approval)

The objective of this course is to provide entry-level training in company operations and administration at the first-line supervisory level. Upon successful completion of this course the student will be able to find ways to effectively manage human resources; community public relations budgets, reports and planning.

FS 2625 - Fire Officer 2

3 credit hour(s) (Prerequisite: department approval)

This course is structured for the fire officer who is ready to assume a leadership role by moving into the middle management level. This course gives the officer more knowledge of management and supervision so that he/she can make basic evaluations of employee relations and assume a proactive role in their department. This course expands on the knowledge base attained in Fire Officer I.

FS 2805 - Public Safety Response to Terrorism

3 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; 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 credit hour(s) (Prerequisites: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; or department approval)

Emphasizes inspections conforming to NFPA 101: Life Safety Code and applicable NFPA fire codes. Covers general and occupancy-specific requirements.

FS 2815 - Wildland Patterns and Prevention

3 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 + MATH 0930 or appropriate placement score) (Pre- or corequisite: FS 1504)

This course will be taught as a Hybrid (Blackboard) course which will require students to complete weekly tasks on the Internet. This course will provide students with the tools necessary to evaluate burn patterns as they relate to wildland fuels. Students will gain knowledge in fuel categories and their consumption level relating to species found in the Southwest. Furthermore, students will also explore fire mitigation tools as a resource to reduce and eliminate overcrowding, non-native species, and invasive species.

FS 2820 - Wildland Leadership

4 credit hour(s)

(Prerequisites: ENG 0950 + RDG 0950 + MATH 0930 or appropriate placement score) (Pre- or corequisite: FS 1504)

This course will be taught as a Hybrid (Blackboard) course which will require students to complete weekly tasks on the Internet. This course will provide students with the tools necessary to gain skill to be an effective leader on the fireline. The course will also improve awareness of human performance issues on the fireline so that individual firefighters can integrate more effectively into teams/crews.

FS 2825 - Wildland Squad Boss Preparation

3 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 + MATH 0930 or appropriate placement score) (Pre- or corequisite: FS 1504)

This course is a Distance Learing course. It will provide students with skills necessary to function as an Advanced Firefighter (FFT1). Students will gain detailed information pertaining to air operations, use of portable pumps, hose lays and the duties of a squad boss. A total of three nationally recognized certificates will be issued to students meeting the requirements of the course.

FS 2830 - Wildland Urban Interface Operations

3 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 + MATH 0930 or appropriate placement score) (Pre- or

corequisite: FS 1504)

This course will be taught as aHybrid (Blackboard) course which will require students to complete weekly tasks on the Internet. This course will provide students with the tools necessary to evaluate, protect and assess unique hazards in the interface.

FS 2997 - Independent Study

1-6 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem working with an instructor.

FS 2999 - Fire Science Capstone Course

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term)

Fitness Technician

FITT 1010 - Foundations of Exercise Science

3 credit hour(s) (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. Fall only. (30 theory hours/45 lab hours)

FITT 1072 - Kinesiology

3 credit hour(s) (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. Fall only. (30 theory hours/45 lab hours)

FITT 1092 - Cardio Kick Boxing

1 credit hour(s) 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.
Note(s)
45 lab hours per term.

FITT 1093 - Weight Training for Women

1 credit hour(s) 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.
Note(s)
45 lab hours per term

FITT 1095 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Employs the student at an approved program-related work site and applies learned theory based on goals and objectives. (0 theory hours/135 lab hours)

FITT 1096-1996 - Special Topics

1-6 credit hour(s) (Prerequisite: department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FITT 1097 - Independent Study

1-6 credit hour(s) Focuses on a specific problem while working with an instructor.

FITT 1098 - Fitness Technician Field Experience

3 credit hour(s) (Prerequisite: department approval)

Provides students with a supervised field experience in a fitness setting. (0 theory hours/135 lab hours)

FITT 1192 - Body Sculpting

1 credit hour(s) Utilizes hand-held weights and exercise bands to tone, define, sculpt and strengthen major muscle groups in an aerobic setting.
Note(s)
45 lab hours per term.

FITT 1193 - Beginning Step Aerobics

1 credit hour(s) Introduces cardiorespiratory fitness, flexibility and body composition for individuals who have never participated in a step aerobics program.
Note(s)
45 lab hours per term

FITT 1292 - Boxing Conditioning

1 credit hour(s) Presents highly intense, non-contact boxing activities covering basic boxing skills (stance and footwork, punches, combinations, ect.) as well as participation in general conditioning activities commonly performed by boxers.
Note(s)
45 lab hours per term.

FITT 1293 - Fall Prevention Training for Older Adults

1 credit hour(s) 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.
Note(s)
45 lab hours per term.

FITT 1393 - Flexibility Training

1 credit hour(s) Increases and maintains joint range of motion as well as facilitates relaxation; includes abdominal training.
Note(s)
45 lab hours per term.

FITT 1492 - Step/Circuit Combo

1 credit hour(s) Uses a combination of step-aerobics and circuit resistance training with hand weights, resistances tubes and fit ball for individuals looking for a cross-training effect. No previous step experience is required.
Note(s)
45 lab hours per term

FITT 1493 - Fit Ball Training

1 credit hour(s) Uses fit balls, exercise bands, medicine balls and hand weights to improve flexibility, coordination and extremity and core strength.
Note(s)
45 lab hours per term.

FITT 1572 - Fitness Assessment and Exercise Prescription

3 credit hour(s) (Prerequisite: FITT 1010 + FITT 1072 + MATH 0930 or appropriate placement scores)

Covers methods of assessing health status, cardio-resipiratory and muscular fitness, flexibility and body composition in apparently healthy individuals and prescribing appropriate exercise programs. This is a a capstone course for the certificate program. Spring only. (30 theory hours/45 lab hours)

FITT 1575 - Exercise Prescription for Special Populations

3 credit hour(s) (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.) Spring only. (30 theory hours/45 lab hours)

FITT 1592 - Step/Kick Combo

1 credit hour(s) Uses a combination of step-aerobics and cardio kickbox training for individuals looking for a cross training effect. No previous step experience is required.
Note(s)
45 lab hours per term.

FITT 1593 - Hatha Yoga I

1 credit hour(s) Introduces various techniques of fitness Yoga. Students are responsible for purchasing their own mats.
Note(s)
45 lab hours per term.

FITT 1692 - Beginning Country Western Dance

1 credit hour(s) 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.
Note(s)
45 lab hours per term.

FITT 1693 - Core Fitness I

1 credit hour(s) Teaches core strength and stabilization as well as improves joint range of motion and facilitate relaxation. Students are responsible for purchasing their own mats.
Note(s)
45 lab hours per term.

FITT 1792 - Physical Fitness I

1 credit hour(s) 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.
Note(s)
45 lab hours per term.

FITT 1793 - Core Yoga

1 credit hour(s) Introduction to the various techniques of Pilates-style mat training and fitness Yoga. Students are responsible for purchasing their own mat.
Note(s)
45 lab hours per term.

FITT 1892 - Fitness for Older Adults

1 credit hour(s) 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.
Note(s)
45 lab hours per term.

FITT 1893 - Healing Hatha Yoga Stretch and Breath

1 credit hour(s) 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 person. Students are responsible for purchasing their own mat.
Note(s)
45 lab hours per term.

FITT 1992 - Circuit Training

1 credit hour(s) Covers structured strength training and aerobics to provide a total body workout within a single format.
Note(s)
45 lab hours per term.

FITT 1993 - Ultimate Frisbee

1 credit hour(s) Covers rules, techniques and tactics involved in playing Ultimate Frisbee while participating in various conditioning and skill-related drills and semi-competitive games.
Note(s)
45 lab hours per term.

FITT 1994 - Running Conditioning

1 credit hour(s)

Introduces cardio-respiratory fitness, flexibility and body composition for individuals who have never participated in a running program.

45 Lab Hours

FITT 2072 - Motor Learning

3 credit hour(s) (Prequisite: FITT 1072)

This course will emphasize motor learning concepts. Awareness of theories of motor learning will be presented in order to apply those theories in life situations. Emphasis will be placed on the learning process, the learner, and the task to encourage application of these concepts in future working environments. We will use a combination of instructional styles to facilitate learning.

FITT 2074 - Tests & Measurements

3 credit hour(s) (Prequisite: FITT 1072)

This course will provide exercise science and physical education professionals, as well as athletic trainers, the knowledge and ability to select and administer fitness, skill, cognitive and effective measurement and evaluation techniques for various populations. Activities include collection and computer analysis of the data.

FITT 2092 - Physical Fitness II

1 credit hour(s) (Prerequisite: FITT 1792)

Continuation of FITT 1792.
Note(s)
45 lab hours per term

FITT 2093 - Extreme Conditioning

1 credit hour(s) Covers highly intense activities that prepare individuals for the CPAT entrance test and the physical training portion of the firefighter academy.
Note(s)
45 lab hours per term

FITT 2094 - Advanced Weight Training for Women

1 credit hour(s) (Prerequisite: FITT 1093)

Advanced weight training methods for women focusing on five specific, unique weight training programs and the science behind them to further develop goals in muscle endurance, hypertrophy, strength and power.
Note(s)

45 lab hours

FITT 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FITT 2192 - Fitness for Older Adults II

1 credit hour(s) (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.
Note(s)
45 lab hours per term.

FITT 2292 - Fitness Yoga

1 credit hour(s) (Prerequisite: FITT 1593)

Continuation of FITT 1593 - Hatha Yoga I. Students are responsible for purchasing their own mat.
Note(s)
45 lab hours per term.

FITT 2293 - Step Challenge

1 credit hour(s) (Prerequisites: FITT 1193 or FITT 1592)

A Step Class for the more experienced stepper.
Note(s)

45 lab hours

FITT 2392 - Pilates-Style Mat Training

1 credit hour(s) (Prerequisite: FITT 1693)

Continuation of FITT 1693 - Core Fitness I. Students are responsible for purchasing their own mat.
Note(s)
45 lab hours per term.

FITT 2394 - Core Mat

1 credit hour(s) Fundamentals of Core-Style Mat Training. Students are responsible for purchasing their own mat.
Note(s)

45 lab hours

FITT 2492 - Group Exercise Leadership Preparation

1 credit hour(s) (Prerequisite: department approval)

Offers 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. (0 theory hours/45 lab hours)

French

FREN 1101 - Beginning French I

4 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Introduces development of French language skills emphasizing listening, comprehension and speaking.

FREN 1102 - Beginning French II

4 credit hour(s) (Prerequisite: FREN 1101 or department approval)

Continues course of study begun in FREN 1101.

FREN 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: varies)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

FREN 2201 - Intermediate French

4 credit hour(s) (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 credit hour(s) (Prerequisite: FREN 2201 or department approval)

Continues course of study begun in FREN 2201.

GED Preparation (non-credit)

GEDC 0550 - Reading and Writing I

0 credit hour(s)

Prerequisite: Lowest level TABE Score in either Reading and/or Language at the NRS 3 level (low intermediate) or completion of GEDR 0250 .

This is a low intermediate level reading and writing course. It includes reading practice in constructing meaning from both life skills and prose selections, with an emphasis on vocabulary development. Also provides writing practice with a variety of language usage activities including mechanics, sentence formation, and paragraph development.

Theory/Lab Hours: 45 theory + 15 lab hours.

GEDC 0650 - Reading and Writing II

0 credit hour(s)

Prerequisite: Lowest level TABE score in either Reading and/or Language at the NRS 4 level (high intermediate) or completion of GEDC 0550, GEDR 0450 or GEDW 0550.

Provides reading and writing instruction at the high intermediate level in preparation for the GED

exam. Introduces reading in science, social studies, and literature. Includes practice in comprehension, application, analysis, and synthesis. Writing includes the study of sentence and paragraph structure, usage, language mechanics, and organization. Introduces the GED essay.

Theory/Lab Hours: 45 theory hours + 15 lab hours

GEDI 0196, 0296...0996 - Basic Skills Special Topics

Presents various topics.

GEDI 0500 - Basic Skills Integrated

0 credit hour(s) 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

0 credit hour(s) 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 - GED en Español

0 credit hour(s) 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 0520 - Spanish GED

0 credit hour(s) 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 0650 - Computer Literacy

0 credit hour(s) 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

0 credit hour(s) 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

0 credit hour(s) 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

0 credit hour(s) 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

0 credit hour(s) Presents high intermediate math concepts focusing on proportions, percentages, data analysis, basic geometry and algebra. Includes a thorough review of fractions and decimals.

GEDM 0850 - GED Math

0 credit hour(s) Focuses on understanding the concepts and types of applied problems found on the GED Math exam.

GEDR 0250 - Basic Language Skills

0 credit hour(s) 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

0 credit hour(s) Improves developmental phonics, dictionary skills, grammar, response to reading and self-expression.

GEDR 0650 - Basic Skills Reading

0 credit hour(s) 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

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

0 credit hour(s) 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

0 credit hour(s) 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

0 credit hour(s) Covers the basics of grammar and the beginning writing process.

GEDW 0650 - Spelling and Grammar

0 credit hour(s) Reviews language mechanics, usage and spelling improvement.

GEDW 0850 - General Composition

0 credit hour(s) 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.

Geographic Information Systems

GIS 1001 - Introduction To GIS

3 credit hour(s) (Pre- or corequisite: IT 1010)

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 theory hours/45 lab hours)

GIS 1005 - CAD for GIS

3 credit hour(s) (Pre- or corequisite: CAD 1001)

Computer-aided drafted for civil engineering, surveying and land development to create and edit point data, parcel area computations and boundary information.
Note(s)
(Theory / Lab Hours 30/45)

GIS 1006 - Land Information Systems

1 credit hour(s) (Pre- or corequisite: GIS 1001 or department approval)

This course introduces students to cadastral concepts including land surveys, deeds, survey plats and land record research. This course will also introduce students to the use of Geographic Information Systems software to manage and analyze cadastral data.

GIS 1010 - Remote Sensing

3 credit hour(s)

Prerequisite: GIS 1001

Introduces students to basic remote sensing concepts and explores the applications of current technology. Topics to be covered will include basic energy theory, photo interpretation, common image analysis techniques and algorithms, and image classification using GIS and remote sensing software. (30 theory + 45 lab hours per term)

GIS 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

GIS 2001 - Intermediate GIS

3 credit hour(s) (Prerequisite: GIS 1001)

Builds upon concepts introduced in GIS 1001, and introduces vector and raster analysis procedures commonly utilized in Geographic Information Systems.
Note(s)
(30 theory +45 lab hours per term)

GIS 2007 - GIS Applications

3 credit hour(s) (Prerequisite: GIS 1001 or department approval)

Builds on concepts introduced in GIS 1001 and introduces GIS applications emphasizing 3D visualization, network analysis, scripting and GIS database concepts.
Note(s)

30 theory hours

45 lab hours

GIS 2020 - Trends in Geospatial Technology

3 credit hour(s) (Prerequisite: GIS 1001)

Examines emerging trends in geospatial hardware and software applications such as open source, web applications and others. Students will apply technology in lab exercises using real-world data. Topics will vary by semester.
Note(s)
(Theory / Lab Hours 30/45)

GIS 2030 - GIS Project Design

3 credit hour(s) (Prerequisite: GIS 2007 or department approval)

Applies knowledge gained from previous courses to development and implementation of GIS projects. Project development will encompass the full range of procedural approaches from planning, data acquisition, analysis, output and presentation. (15 theory hours/90 lab hours)

GIS 2092 - GPS Field Mapping

1 credit hour(s) (Prerequisite: GIS 1001)

Covers field mapping techniques for developing GIS databases. Concepts include satellite-based hardware and related concepts, data dictionary design and implementation, GPS data compilation and map production. Emphasis on mapping-grade applications. (0 theory hours/45 lab hours)
Note(s)

Previously GIS 2010

A catalog change was made per catalog corrections team.

GIS 2095 - Cooperative Education

3 credit hour(s) (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 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite: department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

GIS 2097 - Independent Study

1-7 credit hour(s) (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. Then student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

GIS 2098 - Internship

1-7 credit hour(s) (Prerequisite: department approval)

Provides an opportunity for the student to work for one term on an intern basis in an appropriate training program. The position is not paid.

SUR 1001 - Introduction to Surveying Engineering

1 credit hour(s) (Prerequisite: None)

Introduces the field of surveying and explores potential career paths.
Note(s)
(Theory / Lab Hours 15/0)

SUR 1002 - Math for Surveyors

1 credit hour(s) (Corequisite: CM 2205)

Covers basic concepts of problem solving, mathematics and trigonometry with an emphasis on land survey and engineering applications and calculator use. Students

must provide a full-function scientific calculator with a ten-digit display.

Geography

GEOG 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

GEOG 1101 - Physical Geography

3 credit hour(s) (Prerequisite:RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate scores)

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 1192 - Physical Geography Lab

1 credit hour(s) (Pre- or corequisite: GEOG 1101)

This laboratory course introduces the physical elements of world geography and the study of climate and weather, vegetation, soils, plate tectonics, various landforms, the environmental cycles and spatial distributions of these components through the use of maps, aerial photographs, and laboratory specimens.

GEOG 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

GEOG 2201 - World Regional Geography

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Combines elements of GEOG 1101 and GEOG 1102 to study the global inter-relationships of the physical environments and cultural characteristics, including ethnicity, population and development, on a regional basis.

GEOG 2275 - Cartography

3 credit hour(s) (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.

German

GER 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

General Honors

GNHN 1121 - General Honors: The Ancient Legacy

3 credit hour(s) (Prerequisite: 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 credit hour(s) (Prerequisites: 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 2096-2996 - Special Topics

3 credit hour(s) (Prerequisites: department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

GNHN 2211 - Utopian and Dystopian Thought

3 credit hour(s) (Prerequisite: departmental approval)

Examines utopian and dystopian texts from a social, political, economic, and environmental perspective.

GNHN 2221 - Understanding Evil

3 credit hour(s) (Prerequisite: 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.

General Trades Apprenticeship

GTAP 1096-1996 - Special Topics

1-7 credit hour(s) Presents various topics.

Note(s)

All courses ending in 96 are special topics

GTAP 1115 - General Trades Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 1415 - General Trades Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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.

Health

HLTH 1001 - Clinical Preparation

1 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores)

Designed to prepare School of Health, Wellness & Public Safety students for their clinical experience in the health discipline they have chosen to study. The course will provide CPR, Blood Borne Pathogen, HIPAA, and First Aid certification. Students are encouraged to take this course prior to their course of study, however, be advised that CPR and First Aid certifications must be renewed every 2 years. Bloodborne Pathogen and HIPAA certifications must be renewed annually.

Health Information Technology

HIT 1015 - Introduction to Coding

3 credit hour(s) (Pre- or corequisite: BIO 2210 + BIO 2310 + HIT 1020 + HIT 1030 or department approval)

Provides an overview of Coding. Focuses on the 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, students interpret medical record information, choose the required coding classification and assign and sequence codes.

HIT 1020 - Medical Terminology and Anatomy

3 credit hour(s) (Prerequisite: RDG 0750 + ENG 0950 or appropriate placement scores).

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 credit hour(s) (Pre- or corequisite: ENG 0950 + MATH 0930 + RDG 0950 or appropriate placement score)

Presents an overview of health care delivery and examines the role of various providers and disciplines throughout the continuum of health care services and the information system policies and procedures required by national health information initiatives. Emphasis is on the origin, use content and format of health records; storage and retrieval systems, numbering and filing systems, record retention procedures and the basic functions of the health information division such as abstracting, incomplete chart control and release of information, accrediation and licensure standards applicable to health records.

HIT 1055 - PathoPharm

4 credit hour(s) (Pre- or corequisite: BIO 2210 + BIO 2310 + HIT 1020 or departmental 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. 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.

HIT 1060 - Health Information Management Systems

3 credit hour(s) (Prerequisites: IT 1010 + OTEC 1175 + HIT 1030)

Provides an introduction to the use of information technology in the health care delivery system and different computer applications found in health information divisions. Emphasis is placed on the 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 hours/45 lab hours)

HIT 1070 - Legal/Ethical Aspects of Health Information

3 credit hour(s) (Pre- or corequisite: 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 I

1 credit hour(s) (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 45 hours. (0 theory hours/45 lab hours)

HIT 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

HIT 2010 - Classification of Diseases I (ICD-CM)

3 credit hour(s) (Prerequisites: HIT 1015 + HIT 1020 + HIT 1030 + HIT 1055 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. (30 theory hours/45 lab hours)

HIT 2020 - Classification of Diseases II

3 credit hour(s) (Prerequisites: HIT 1015 + 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 hours/45 lab hours)

HIT 2030 - CPT Coding

3 credit hour(s) (Prerequisites: HIT 1015 + 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 hours/45 lab hours)

HIT 2040 - Health Information Data Analysis

3 credit hour(s) (Prerequisites: HIT 1030 + HIT 1060 + HIT 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 policies 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 credit hour(s) (Prerequisites: HIT 1030 + HIT 1060 + HIT 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 Methodolgies

2 credit hour(s) (Prerequisites: IT 1010 + HIT 1030 + HIT 1015 + 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, charged 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 credit hour(s) (Prerequisites: HIT 2020 + HIT 2030 + HIT 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, outpatient 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.
Note(s)

15 theory + 45 lab hours

HIT 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

HIT 2290 - Health Information Practicum II

2 credit hour(s) (Pre- or corequisites: HIT 2030 + HIT 2050 + HIT 2060 and 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 activites to further develop medical records in the areas of health information management. This is an unpaid work experience requiring a minimum of 90 hours. Students work with the instructor on specific topics related to the program. (0 theory hours/90 lab hours)

Heating, Ventilating, Air Conditioning and Refrigeration

Heating, Ventilating, Air Conditioning and Refrigeration

HVAC 1105 - Refrigerant Fundamentals

3 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement score or department approval)

Introduces fundamentals of refrigeration, including components, refrigerants, accessories and hands-on competencies. (15 theory hours/65 lab hours)

HVAC 1110 - Basic Electricity

3 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement score or department approval)

Presents principles of electricity, measurements, safety, wiring procedures, schematics, components of basic circuits and principles and practices in electricity. (15 theory hours/65 lab hours)

HVAC 1115 - Refrigerant Management

3 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement score or department approval) (Pre- or corequisites: HVAC 1105 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 hours/65 lab hours)

HVAC 1120 - Motors & Controls

3 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 + MATH 0930 or appropriate placement score or department approval) (Pre- or corequisite: HVAC 1110 or department approval)

Covers primary and control circuits in various applications, roubleshooting and components. Emphasizes attention to motors and starting devices. (15 theory hours/65 lab hours)

HVAC 1130 - Code and Safety I

1 credit hour(s) (Prerequisites: ENG 0750 + RDG 0750 or appropriate placement score or department approval)

Investigates code requirements and safety practices related to refrigeration. Code and safety searches are an integral part of the course.

HVAC 1205 - Air Conditioning

2 credit hour(s) (Prerequisites: HVAC 1105 + HVAC 1110 + HVAC 1115 + HVAC 1120 or department approval)

Covers installation, service and maintenance of air conditioning and heat pump systems.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1210 - Air Conditioning Controls

2 credit hour(s) (Prerequisite: HVAC 1105 + HVAC 1110 + HVAC 1115 + HVAC 1120 or department approval) (Pre or corequisite: HVAC 1120)

Covers installation, service and maintenance of air conditioning and heat pump systems controls.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1215 - System Design

3 credit hour(s) (Prerequisite: HVAC 1105 + HVAC 1110 + HVAC 1115 + HVAC 1120 or department approval) (Pre- or corequisite: HVAC 1205 + HVAC 1210 or department approval)

Examines air properties, air movement, heat load calculations and water as a secondary refrigerant. Test and balancing procedures are introduced

Note(s)
(Theory / Lab Hours 30/37.5)

HVAC 1220 - Installation and Retrofit of Heat/Cooling Systems

2 credit hour(s) (Prerequisite: HVAC 1105 + HVAC 1110 + HVAC 1115 + HVAC 1120 or department approval) (Pre- or corequisite HVAC 1205 + HVAC 1210 + HVAC 1215)

Covers the installation of new and retrofitting of existing heating and/or cooling units to duct systems.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1225 - Heating Systems

2 credit hour(s) (Prerequisite: HVAC 1105 + HVAC 1110 + HVAC 1115 + HVAC 1120 or department approval) (Pre- or corequisite: HVAC 1205 + HVAC 1210 + HVAC 1215 + HVAC 1220)

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.

Note(s)

(Theory / Lab Hours 15/37.5)

HVAC 1230 - Heating Control Systems

2 credit hour(s) (Prerequisite: HVAC 1105 + HVAC 1110 + HVAC 1115 + HVAC 1120 or department approval) (Pre- or corequisite: HVAC 1205 + HVAC 1210 + HVAC 1215 + HVAC 1220 + HVAC 1225)

Emphasizes electrical and electronic control troubleshooting, service, maintenance and repair/ replacement of residential and/or light commercial heating systems.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1305 - Advanced Hydronics

2 credit hour(s) (Prerequisite: HVAC 1230 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(s)
(Theory / Lab Hours 15/37.5)

HVAC 1310 - Controls I

2 credit hour(s) (Prerequisite: HVAC 1230) (Pre- or corequisite: HVAC 1305 or department approval)

Stresses pneumatic, electronic and electric control systems with computer interfacing.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1315 - Hot Water & Steam Generation Systems

2 credit hour(s) (Prerequisite: HVAC 1230 or department approval) (Pre- or corequisite: HVAC 1305 + HVAC 1310)

Covers types, design, construction of typical systems, sizing and controls of units.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1320 - Controls II

2 credit hour(s) (Prerequisite: HVAC 1230 or department approval) (Pre- or corequisite: HVAC 1305 + HVAC 1310 + HVAC 1315)

Covers advanced building controls using interfaced operating monitor equipment.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1325 - Chilled Water Systems

2 credit hour(s) (Prerequisite: HVAC 1230; or RDG 0750 + MATH 0930 or department approval) (Pre- or corequisite: HVAC 1305 + HVAC 1310 + HVAC 1315 + HVAC 1320)

Emphasizes commercial and industrial chilled water systems.
Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1330 - Controls III

2 credit hour(s) (Prerequisite: HVAC 1230 or department approval) (Pre- or corequisite: HVAC 1305 + HVAC 1310 + HVAC 1315 + HVAC 1320 + HVAC 1325)

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.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1335 - Code and Safety Requirements II

1 credit hour(s) (Prerequisite: HVAC 1130 or department approval)

Investigates code requirements and safety practices related to refrigeration. Code and safety searches are an integral part of this course.

Note(s)
(Theory / Lab Hours 15/0)

HVAC 1405 - Refrigeration Application

2 credit hour(s) (Prerequisite: HVAC 1330 or department approval)

Covers system design, accessories, performance characteristics and problem diagnosis.

Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1410 - Commercial Refrigeration

2 credit hour(s) (Prerequisite: HVAC 1330) (Pre- or corequisite: HVAC 1405 or department approval)

Covers installation, service and maintenance of reach-in, walk-in coolers, ice machines, ice cream machines, mechanical and electrical trouble shooting refrigeration systems.
Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1415 - Industrial Refrigeration

2 credit hour(s) (Prerequisite: HVAC 1330) (Pre- or corequisite: HVAC 1330 + HVAC 1410 or department approval)

Coverage of the fundamentals, design, installation, and operation of industrial refrigeration systems. Also examined in depth are: Multistate Systems--Commonly used in low-temperature systems. Compressors, Evaporators, and Condensers--Essential system components. Piping, Vessels, Valves and Refrigerant Controls
Note(s)
(Theory / Lab Hours 15/37.5)

HVAC 1420 - HVAC/R Energy Efficiency & Green Building Standards I

3 credit hour(s) (Prerequisite: HVAC 1330) (Pre- or corequisite: HVAC 1405 + HVAC 1410 + HVAC 1415 or department approval)

This section covers the Training needed for a standardize set of Building Performance Procedures During the

course, students will apply theory, knowledge, and techniques to actual projects using Duct Blaster testing warm air equipment.

Note(s)
(Theory / Lab Hours 30/37.5)

HVAC 1425 - HVAC/R Energy Efficiency & Green Building Standards II

3 credit hour(s) (Prerequisite: HVAC 1330) (Pre- or corequisite: HVAC 1405 + HVAC 1410 + HVAC 1415 + HVAC 1420 or department approval)

Weatherization Training with Concentration on Building Performance. This section covers the Training needed for a standardize set of Building Performance Procedures. During the course, students will apply theory, knowledge, and techniques to actual projects using Blower Door testing equipment.
Note(s)
(Theory / Lab Hours 30/37.5)

HVAC 1430 - HVAC/R Energy Efficiency & Green Building Code Compliance

1 credit hour(s) Pre-requisites: HVAC 1330 or RDG 0750 + MATH 0930 or appropriate placement scores) (Pre- or corequisite: HVAC 1405 + HVAC 1410 + HVAC 1415 + HVAC 1420 + HVAC 1425 or department approval)

The study of Energy Efficiency & Green Building Code Compliance. Course will cover federal, state, and local green building codes.

HVAC 2095 - Heating, Ventilating, Air Conditioning and Refrigeration COOP

3 credit hour(s) (Prerequisite: HVAC 1430 or department approval)

Students will complete 150 hours of supervised training experience at an approved Heating, Ventilation, Air Conditioning and Refrigeration workplace.
Note(s)

Theory and Lab Hours 150

Previously HVAC 1505

A catalog change was made per catalog corrections team.

HVAC 2297 - Independent Study

Variable credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

HVAC 2999 - HVAC CAPSTONE COURSE

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. Student must have completed all four (4) HVAC terms to be prepared to take this class (Taken during student's last term).
Note(s)
(Theory / Lab Hours 15/0)

History

HIST 1101 - Western Civilization I

3 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)

Emphasizes events, personalities, issues, rises and falls, covering ancient times through 1648.

HIST 1102 - Western Civilization II

3 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite:RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)

Continues study begun in HIST 1161, covering 1865 to the present.

HIST 1181 - Early Latin American History

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores, Recommended prerequisite: ENG 1101)

Introduces Latin American history from the pre-Colombian period to the Revolutionary period beginning in 1810.

HIST 1182 - Modern Latin American History

3 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores, Recommended prerequisite: ENG 1101)

Introduces Latin American history from the beginning of the revolutionary period in 1810 to the present.
Note(s)

Previously HIST 2282

HIST 2096-2996 - Special Topics

3 credit hour(s) (Prerequisites: RDG 0950 or Accuplacer Reading score of 80 or equivalent, recommended prerequisite: ENG 1101 or Accuplacer Sentence Skills score of 110)RDG 0950

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

HIST 2230 - Twenieth Century Russia

3 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)RDG 0950

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 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)RDG 0950

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. 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 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)RDG 0950

Surveys New Mexico's history from 1500 to the present: contributions of the interactions among Native Americans, Hispanics, Anglos and others.

HIST 2270 - The American West

3 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. Recommended prerequisite: ENG 1101)RDG 0950

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 ethnics groups of the region.

Humanities

HUM 1111 - Cultures and Civilization Ancient to Renaissance

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Continues course of study begun in HUM 1111: history, art, literature, music and ideas of world civilizations from the Renaissance to present.

HUM 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

Hospitality and Tourism

HT 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

HT 1101 - Introduction to Tourism

3 credit hour(s) (Prerequisite: MATH 0930 + RDG 0950 + ENG 0950 or appropriate placement scores) (Recommended Pre- or Corequisite: IT 1010)

Provides a broad overview of travel and tourism development, operations, and career opportunities.

HT 1106 - Hotel Operations

3 credit hour(s) (Pre- or corequisite of HT 1101 + IT 1010)

Presents management concepts and the interdependence of hotel operations ranging from front office, security, housekeeping management, facilities, revenue management and guest services.

HT 1164 - Food and Beverage Service

3 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores; 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

3 credit hour(s) (Prerequisite: Department Approval)

Provides an opportunity for a structured educational (paid) work experience related to a student's academic goals. Cooperative Education is a partnership between the student and both the educational institution and the employer, with specific responsibilities for each party. Requires a minimum of 135 hours and must involve a new learning experience.
Note(s)

135 lab hours

HT 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

HT 2097 - Independent Study

1-8 credit hour(s) (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

3 credit hour(s) (Prerequisite: Department Approval)

Provides an opportunity for a structured (unpaid) work experience related to a student's academic goals. The internship is a partnership between the student and both the educational institution and the employer, with specific responsibilities for each party. Requires a minimum of 135 hours and must involve a new learning experience.
Note(s)

135 lab hours

HT 2141 - Marketing of Hospitality Services

3 credit hour(s) (Pre- or corequisite: 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 credit hour(s) (Pre- or corequisite: CULN 1010 or CULN 1100 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 2215 - Purchasing and Cost Controls

3 credit hour(s) (Prerequisite: HT 1101 or CULN 1100 or CULN 1010 or department approval) (Recommended pre- or co-requisite: CULN 1112)

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 credit hour(s) (Pre- or corequisite: 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 2232 - Event Planning

3 credit hour(s) (Pre- or corequisite: HT 1101 or department approval)

An overview of event planning ranging from special events, festivals, meetings and weddings. Focus will be on design, planning and organization of events including marketing and volunteer management.

HT 2235 - Leadership and Management in the Hospitality Industry

3 credit hour(s) (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.

Information Technology

IT 0850 - Basic Computer/Keyboarding Skills

3 credit hour(s) Introduces basic skills in computer applications, computer concepts, Internet navigation and keyboarding. Recommended for entry level students with limited to low computer skills.
Note(s)

45 theory hours

15 lab hours

IT 1010 - Introduction to Computers

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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).
Note(s)

45 theory hours

15 lab hours

Iron Worker Apprenticeship

IWAP 1116 - Iron Workers Apprenticeship

5-7 credit hour(s) (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 Workers Apprenticeship

5-7 credit hour(s) (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 Workers Apprenticeship

5-7 credit hour(s) (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 Workers Apprenticeship

5-7 credit hour(s) (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 Workers Apprenticeship

5-7 credit hour(s) (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 Workers Apprenticeship

5-7 credit hour(s) (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 Workers Apprenticeship

5-7 credit hour(s) (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 Workers Apprenticeship

5-7 credit hour(s) (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.

Journalism

JOUR 1171 - Writing for the Media I

3 credit hour(s) (Prerequisite: ENG 1101 or appropriate placement scores; or department approval)

Introduces methods and skills of journalism, emphasizing journalistic conventions, news gathering and news writing for print and broadcast media.

JOUR 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: JOUR 1171, ENG 1101, or permission of instructor)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

JOUR 2271 - Writing for the Media II

3 credit hour(s) (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 credit hour(s) (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.

Landscaping

LAND 1121 - Plant Science

3 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement score or department approval)

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. (30 theory hours/45 lab hours)

LAND 1221 - Soil Science

3 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement score or department approval)

Introduces soil formation, physical, chemical and biological properties, soil, water and air, soil fertility and plant nutrition with an emphasis on water conservation. (30 theory hours/45 lab hours)

LAND 1301 - Landscape Irrigation

3 credit hour(s) (Prerequisite: MATH 0750 or RDG 0750 or appropriate placement score 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 1321 - Comprehensive Irrigation Techniques

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement score or department approval)

Introduces irrigation system hydraulics, component identification, assembly, diagnostics, maintenance and repair with emphases on water conservation, system performance and safety. (15 theory hours/45 lab hours)

LAND 1421 - Weed & Pest Control

3 credit hour(s) (Prerequisite: MATH 0750 or RDG 0750 or appropriate placement score or department approval.)

Introduces fundamental principles of Landscape Pest Management. Covers pest classification, identification and management principles; plant physiology and pathology, laws, chemical handling, and safety issues with emphases on environmental responsibility and stewardship. (30 theory hours/45 lab hours)

LAND 1501 - Landscape Design

3 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement score 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 1701 - Crew Leadership

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement score or department approval)

Introduces basic crew leadership skills including construction industry and organizations, team building, gender and minority issues, communication, motivation, problem solving, decision making, site safety and project control.

LAND 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

LAND 2110 - Landscape Construction

3 credit hour(s) (Prerequisite: MATH 0750 or RDG 0750 or appropriate placement score or department approval.)

Covers basic instruction in landscape construction techniques and materials and the safe operation and maintenance of power equipment commonly used in landscaping construction. (30 theory hours/45 lab hours)

LAND 2120 - Landscape Maintenance

3 credit hour(s) (Prerequisite: MATH 0750 or RDG 0750 or appropriate placement score or department approval.)

Includes basic instruction in landscape maintenance techniques and the safe operation and maintenance of power equipment commonly used in the landscaping industries. (30 theory hours/45 lab hours)

LAND 2130 - Light Truck & Trailer Operation

2 credit hour(s) (Prerequisite: MATH 0550 or appropriate placement score or department approval.)

Introduces light truck and trailer driving techniques, licensing, requirements, evaluation of load/towing capacity, inspection of towing combinations, securing of cargo, loading and unloading, coupling and uncoupling of light duty trailers. (15 theory hours/45 lab hours)

LAND 2140 - Construction Equipment Safety & Fundamentals

2 credit hour(s) (Prerequisite: MATH 0550 or appropriate placement score or department approval.)

Provides an overview of equipment operation, operator responsibilities and career opportunities. Includes basic principles of safety, engine operation, OSHA/NIOSH requirements, identification of equipment and basic operational techniques.

LAND 2150 - Effective Irrigation Scheduling

3 credit hour(s) (Prerequisite: MATH 0550 or appropriate placement scores or department approval.)

Presents principles and techniques of competent irrigation auditing and scheduling utilizing generally accepted industry standards.

LAND 2201 - Plant Selection

3 credit hour(s) 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 credit hour(s) (Prerequisite: LAND 1301 or department approval)

This course will build on the fundamental hydraulic principles presented in LAND 1301 and expands knowledge, skills and abilities to gain competencies in rotor systems, drip system and water auditing.

LAND 2210 - Water Features

3 credit hour(s) This class will introduce the student to all aspects of proper water feature installation techniques that range from still water bogs to waterfalls and larger ponds.
Note(s)
(45 theory hours + 30 lab hours per term)

LAND 2995 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Employs the student at an approved program-related work site and applies learned theory based on goals and objectives.

LAND 2997 - Independent Study

1-7 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

Machine Tool Technology

MATT 1001 - Metals Math I

2 credit hour(s) (Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores or department approval)

Presents whole numbers, fractions and decimals, shop geometry and algebra, formulas and equations and the Pythagorean theorem. Emphasis is on developing problem solving skills.

MATT 1005 - Metals Blueprint Reading I

2 credit hour(s) (Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores or department approval)

Covers the interpretation of basic manufacturing and fabrication drawings, terminology, or orthographic projection, sectional views, dimensions, tolerances, symbols and drawing standards.

MATT 1030 - Metals Math II

2 credit hour(s) (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 credit hour(s) (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 credit hour(s) (Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores or department approval)

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. (30 theory hours/60 lab hours)

MATT 1065 - Metallurgy

2 credit hour(s) (Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores or department approval)

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 1110 - Basic Lathe Principles

2 credit hour(s) (Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1092

MATT 1120 - Basic Milling Machine Principles

2 credit hour(s) (Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1192

MATT 1130 - Basic Supporting Machine Tool Principles

2 credit hour(s)

(Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1292

MATT 1140 - Basic Measurement and Inspection

2 credit hour(s)

(Prerequisites: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1392

MATT 1210 - Intermediate Lathe Principles

2 credit hour(s) (Prerequisite: MATT 1110 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1492

MATT 1220 - Intermediate Milling Machine Principles

2 credit hour(s) (Prerequisite: MATT 1120 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1592

MATT 1230 - Intermediate Supporting Machine Tool Principles

2 credit hour(s) (Prerequisite: MATT 1130 or department approval)

Presents concentrated training in safety, surface grinding, tool reconditioning, production support and advanced quality assurance methods.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1692

MATT 1240 - Computer Numerical Control I

2 credit hour(s) (Prerequisites: 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 1792

MATT 2005 - Machine Tool Technology CAD/CAM

2 credit hour(s) (Prerequisite: MATT 1240)

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 2010 - Advanced Lathe Principles

2 credit hour(s) (Prerequisite: MATT 1210 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 2092

MATT 2020 - Advanced Milling Machine Principles

2 credit hour(s) (Prerequisite: MATT 1220 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 2192

MATT 2025 - Advanced Machine Tool Technology Skills

3 credit hour(s) (Prerequisite: MATT 1060 or department approval)

Provides advanced instruction in safety, lathe, mill, blueprint reading and shop math. (30 theory hours/60 lab hours)

MATT 2030 - Advanced Supporting Machine Tool Principles

2 credit hour(s) (Prerequisite: MATT 1230 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.
Note(s)

15 theory hours

60 lab hours

Previously MATT 2292

MATT 2040 - Computer Numerical Control II

2 credit hour(s) (Prerequisite: MATT 1240 or department approval)

Reviews programming, manuscript and tape preparation and editing. Presents various programming languages, subroutines and interactive graphic programming.
Note(s)

15 theory hours

60 lab hours

Previously MATT 2392

MATT 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

MATT 2097 - Independent Study

1-7 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

MATT 2140 - Advanced Computer Numerical Control

2 credit hour(s) (Prerequisite: MATT 2040 or department approval)

Building on knowledge and skills developed in MATT 2392, presents advanced programming, manuscript and tape preparation and editing. Includes advanced exercises in various programming languages, subroutines and interactive graphics. (0 theory hours/90 lab hours)

MATT 2999 - Machine Tool Technology Capstone Course

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies.

Manufacturing Technology

MEMS 1101 - Plasma – RF – Vacuum Systems Theory

2 credit hour(s) (Prerequisites: ELEC 1202 + ELEC 1292; or department approval)

Presents RF energy, vacuum technology and vacuum systems applications in manufacturing industries. Includes safety, plasma physics, RF applications, RF generators, transmission lines, RF interference, gas laws and properties, operation and applications of vacuum pumps, gauges and valves and systems leak detection.

MEMS 1192 - Plasma – RF – Vacuum Systems Lab

2 credit hour(s) (Pre- or corequisite: MEMS 1101 or department approval)

Includes laboratory exercises designed to reinforce the theoretical concepts presented in MEMS 1101.
Note(s)

90 lab hours

MT 2005 - Statistical Controls

3 credit hour(s) (Prerequisite: MATH 0940 or appropriate placement scores)

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.

MT 2095 - Cooperative Education

3 credit hour(s) (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 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite: advanced manufacturing student)

Presents various topics.
Note(s)

(all courses ending in 96 are special topics) See *Schedule of Classes*.

MT 2097 - Independent Study

1-7 credit hour(s) (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

5 credit hour(s) (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.

Mathematics

Courses below the 1000-level - School of Adult & General Education (SAGE)

Couses 1000-level and above - MATH 0196-0996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

MATH 0550 - Basic Mathematics

3 credit hour(s) (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.
Note(s)

45 theory hours

15 lab hours

MATH 0750 - Basic College Mathematics

3 credit hour(s) (Prerequisite: MATH 0550 or appropriate placement scores)

Integrates topics from basic mathematics, geometry and 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. A distance learning option is also available.
Note(s)

45 theory hours

15 lab hours

MATH 0930 - Algebraic Problem Solving I

3 credit hour(s) (Prerequisite: MATH 0750 or appropriate placement scores) (Satisfies prerequisite for MATH 0940, MATH 1110) (MATH 0940 is recommended and MATH 1210)

Presents the first of a two-course series in elementary algebra. Includes signed numbers, solving linear equations, problem solving, formulas and graphing. 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. A distance learning option is also available.
Note(s)

45 theory hours

15 lab hours

MATH 0940 - Algebraic Problem Solving II

3 credit hour(s) (Prerequisite: MATH 0930 or equivalent) (Satisfies prerequisite for MATH 1310)

Presents the second of a two-course series in elementary algebra. Includes systems of equations, exponents and polynomials, factoring and quadratics. 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. A distance learning option is also available.
Note(s)

45 theory hours

15 lab hours

MATH 0950 - Algebraic Problem Solving

3 credit hour(s) (Prerequisite: appropriate placement scores) (Satisfies prerequisite for MATH 1110, MATH 1210, and MATH 1310).

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. A distance learning option is also available.
Note(s)
45 theory + 15 lab hours

MATH 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

MATH 1110 - Mathematics for Elementary School Teachers I

3 credit hour(s) (Prerequisite: MATH 0930 + RDG 0750 + ENG 0750 or appropriate placement scores).

Investigates the representation of rational numbers and rational number arithmetic, including base ten and decimal numbers, fractions, and arithmetic operations on these sets. Explanation and problem solving is emphasized throughout.

MATH 1115 - Mathematics for Elementary School Teachers II

3 credit hour(s) (Prerequisite: MATH 1110 or

appropriate placement scores).

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. Explanation and problem solving is emphasized throughout.

MATH 1210 - Methods of Problem Solving

4 credit hour(s) (Prerequisite: MATH 0930 or appropriate placement scores)

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).

MATH 1310 - Intermediate Algebra

4 credit hour(s) (Prerequisite: MATH 0940 or MATH 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: MATH 1310 or appropriate placement scores)

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 credit hour(s) (Corequisite: MATH 1315)

Provides opportunity to explore advanced topics and applications of college algebra through collaborative problem solving.
Note(s)

A catalog change was made per catalog corrections team.

MATH 1320 - A Survey of Mathematics

3 credit hour(s) (Prerequisite: MATH 1210 or MATH 1310 or appropriate placement scores)

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 credit hour(s) (Prerequisite: MATH 1210 or MATH 1310 or appropriate placement scores)

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 credit hour(s) (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 credit hour(s) (Prerequisite: MATH 1315 or MATH 1415 or appropriate placement scores)

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 credit hour(s) (Prerequisite: MATH 1315 or appropriate placement scores)

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 credit hour(s) (Prerequisite: MATH 1315 or MATH 1415 or appropriate placement scores)

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 credit hour(s) (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 credit hour(s) (Prerequisites: MATH 1410 + MATH 1415; or appropriate placement scores)

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 credit hour(s) (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 2015 - Math K-12 Curriculum Workshop

1 credit hour(s) (Prerequisite: Department Permission)

This course can only be taken concurrently with MATH 1315 or above. Students will analyze current K-12 math curriculum materials with respect to the math class they are taking concurrently.
Note(s)
Repeatable for credit

MATH 2096-2996 - Special Topics

3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

MATH 2110 - Mathematics for Elementary School Teachers III

3 credit hour(s) (Prerequisite: MATH 1110)

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. Explanation and problem solving is emphasized throughout.

MATH 2710 - Calculus III

4 credit hour(s) (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 credit hour(s) (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.

MATH 2910 - Applied Ordinary Differential Equations

3 credit hour(s) (Prerequisite: MATH 1715; recommended prerequisite: MATH 2710)

Includes the elementary theory of ordinary differential equations, numerical methods, phase plane analysis, introduction to transform methods.

Medical Lab Technician

MLT 1007 - Clinical Success Seminar

1 credit hour(s) (Corequisite: CLA 1012 or MLT 1012)

Introduces concepts related to learning and success in the college, clinical, and workplace settings. Emphasis is on professional behavior and attitudes required in the Medical Laboratory Science field. Students will interact with and learn from others who are in different levels of their programs or careers as well as reflect on their own habits and beliefs.

MLT 1010 - Introduction to Medical Laboratory Sciences

1 credit hour(s) 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 credit hour(s)

(Prerequisites: BIO 1310 or BIO 2310 + BIO 1392 or BIO 2392 + BIO 1410 + BIO 1492 + BIO 2110 + BIO 2192 + ENG 1101 + CHEM 1410 or CHEM 1710 + CHEM 1492 or CHEM 1792 + CHEM 2210 or CHEM 2710 + CHEM 2792 + Human Relations Requirement + IT 1010 + MATH 1330 + department approval)

(Pre- or corequisite: MLT 1007) (Corequisite: MLT 1014 + MLT 1090 + MLT 1092 + MLT 1192 + MLT 1270 + MLT 1390)

Introduces principles and procedures of physical, chemical and microscopic analysis of urine.

MLT 1014 - Immunology

1 credit hour(s) (Corequisite: MLT 1012 + MLT 1090 + MLT 1092 + MLT 1192 + MLT 1270 + MLT 1390)

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 credit hour(s) (Corequisite: MLT 1012 + MLT 1014 + MLT 1092 + MLT 1192 + MLT 1270 + MLT 1390)

Clinical experience performing basic urinalysis and special tests in an affiliated medical laboratory. (0 theory hours/45 clinical hours)

MLT 1092 - Clinical Urinalysis Laboratory

1 credit hour(s) (Corequisite: MLT 1012 + MLT 1014 + MLT 1090 + MLT 1192 + MLT 1270 + MLT 1390)

Introduces basic medical laboratory techniques in urinalysis and special tests. (0 theory hours/45 lab hours)

MLT 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

MLT 1192 - Clinical Immunology

1 credit hour(s) (Corequisites: MLT 1012 + MLT 1014 + MLT 1090 + MLT 1092 + MLT 1270 + MLT 1390)

Provides experience in serological testing on specimens from hospital patients using current methodologies. (0 theory hours/45 lab hours)

MLT 1270 - Phlebotomy Skills

2 credit hour(s) (Corequisites: MLT 1012 + MLT 1014 + MLT 1090 + MLT 1092 + MLT 1192 + MLT 1390)

Introduces principles and skills related to blood collection. (15 theory hours/45 lab hours)

MLT 1390 - Clinical Experience Phlebotomy Skills

2 credit hour(s) (Corequisites: MLT 1012 + MLT 1014 + MLT 1090 + MLT 1092 + MLT 1192 + MLT 1270)

Phlebotomy experience in a clinical setting. (0 theory hours/90 clinical hours)

MLT 1510 - Clinical Hematology

3 credit hour(s) (Prerequisites: MLT 1007 + MLT 1012 + MLT 1014 + MLT 1090 + MLT 1092 + MLT 1192 + MLT 1270 + MLT 1390). (Corequisite: MLT 1511 + MLT 1592 + MLT 1692 + MLT 1792)

Teaches normal and abnormal blood cell morphology and the principles of routine procedures in a hematology laboratory.

MLT 1511 - Clinical Immunohematology

2 credit hour(s) (Corequisite: MLT 1510 + MLT 1592 + MLT 1692 + MLT 1792)

Examines the theory principles for determining blood group typing, antibody detection and identification, cross matching and component therapy.

MLT 1592 - Clinical Coagulation

1 credit hour(s) (Corequisite: MLT 1510 + MLT 1511 + MLT 1692 + MLT 1792)

Presents basic coagulation concepts with practice performing the procedures. Also introduces advanced principles and procedures performed in the coagulation laboratory. (0 theory hours/45 lab hours)

MLT 1692 - Clinical Hematology Laboratory

2 credit hour(s) (Corequisite: MLT 1510 + MLT 1511 + MLT 1592 + MLT 1792)

Presents experiences for performing the basic procedures in a hematology laboratory including the identification and enumeration of blood cells. (0 theory hours/90 lab hours)

MLT 1792 - Clinical Immunohematology Laboratory

2 credit hour(s) (Corequisite: MLT 1510 + MLT 1511 + MLT 1592 + MLT 1692)

Provides experience in clinical blood bank. (0 theory hours/90 lab hours)

MLT 2010 - MLT Microbiology

3 credit hour(s) (Prerequisites: MLT 1510 + MLT 1511 + MLT 1592 + MLT 1692 + MLT 1792.) (Corequisite: MLT 2011 + MLT 2092 + MLT 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 credit hour(s) (Corequisite: MLT 2010 + MLT 2092 + MLT 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 credit hour(s) (Corequisite: MLT 2010 + MLT 2011 + MLT 2590)

Presents experiences for performing the basic procedures used in a clinical chemistry laboratory including basic chemistry instrumentation. (0 theory hours/45 lab hours)

MLT 2590 - Clinical MLT Microbiology

3 credit hour(s) (Corequisites: MLT 2010 + MLT 2011 + MLT 2092)

Identifies the microorganisms of clinical significance from specimens obtained from patients. Students utilize current methodologies and identification techniques.
Note(s)
135 lab hours

MLT 2790 - Clinical Experience Capstone

10 credit hour(s) (Prerequisites: MLT 2010 + MLT 2011 + MLT 2092 + MLT 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 credit/no credit course.
Note(s)

450 clinical hours

Micro-Electro-Mechanical Systems

MEMS 1001 - Intro to MEMS

3 credit hour(s)

MEMS 1002 - Introduction to MEMS Theory

2 credit hour(s) (Prerequisites: MATH 0940 + RDG 0950 + ENG 0950 or appropriate placement scores) (Recommended Corequisite: MEMS 1092)

Focuses on Microelectromechanical systems (MEMS) including micro and nano-enable systems and covers how these tiny devices work, are made, and designed, and where they are used in this emerging high technology field. Devices studied include those used in micro optical displays, sensors and microfluidic pumps used in BioMEMS, pressure sensors and inertial sensors used in transportation and gaming applications. No books required, all is provided online and includes reading, animations, and streaming lecture educational materials.

MEMS 1092 - Introduction to MEMS Lab

1 credit hour(s) (Prerequisites: MATH 0940 + RDG 0950 + ENG 0950 or appropriate placement scores) (Pre- or corequisite: MEMS 1002)

Focuses on Microelectromechanical systems (MEMS) and covers how these tiny devices are fabricated, and designed,. Hands-on activities will include using state-of-the-art microsystems design software and cleanroom safety and protocol lessons. Students will learn and apply principals in an actual cleanroom activity (UNM's MTTC Cleanroom). No books required, all is provided online and includes reading, animations, and streaming lecture educational materials.
Note(s)
(45 lab hours per term)

MEMS 2001 - MEMS Manufacturing Process

5 credit hour(s) (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 1

3 credit hour(s)

MEMS 2015 - MEMS Manufacturing Technology Theory

3 credit hour(s) (Prerequisites: MEMS 1002 + MEMS 1092 + MEMS 2102; or department approval) (Recommended corequisite: MEMS 2092)

Focuses on Microelectromechanical systems (MEMS) fabrication process control, characterization and development principals. Topics include characterization and optimization of fabrication processes including, but not limited to photolithography, etch, thin film deposition, process interaction with materials, design of experiments and process control concepts, and metrology (measurement) theory. No books are required for this course, all materials will be provided online.

MEMS 2092 - MEMS Manufacturing Technology Lab

2 credit hour(s) (Prerequisites: MEMS 2102; or department approval) (Pre- or corequisite: MEMS 2015)

Focuses on Microelectromechanical systems (MEMS) fabrication process control, characterization and development principals. Topics include application of characterization and optimization of fabrication processes principals in a cleanroom environment including the application of design of experiments and process control concepts, and metrology (measurement) theory. No books are required for this course, all materials will be provided online and lab materials will be supplied.
Note(s)
(0 theory hours/90 lab hours)

MEMS 2102 - Manufacturing Process Theory

2 credit hour(s) (Prerequisite: MEMS 1002 + MEMS 1092 or department approval) (Recommended Corequisite: MEMS 2192)

Focuses on Microelectromechanical systems (MEMS) surface and bulk fabrication processes including photolithography, wet and dry anisotropic and isotropic etch, and thin film deposition methods. These processes are also used in semiconductor and nanotechnology applications. No books required, all is provided online and includes reading, animations, and streaming lecture educational materials.

MEMS 2192 - Manufacturing Process Lab

1 credit hour(s) (Prerequisite: MEMS 1002 + MEMS 1092 or department approval) (Pre- or corequisite: MEMS 2102)

Focuses on Microelectromechanical systems (MEMS) surface and bulk fabrication processes including photolithography, wet and dry anisotropic and isotropic etch, and thin film deposition methods. These processes are also used in semiconductor and nanotechnology applications. Students will fabricate an actual microsystems device at the University of New Mexico's MTTC cleanroom. No books or lab materials are required; all is provided.
Note(s)
45 lab hours

MEMS 2206 - MEMS Design Theory

2 credit hour(s) (Prerequisites: MEMS 1002 + MEMS 1092; or department approval) (Pre- or corequisite: MEMS 2292 + MEMS 2102 or department approval)

Focuses on Microelectromechanical systems (MEMS) design. Introduces design methods and standards utilizing MEMS Computer Aided Design (CAD) software. Students will apply their knowledge of MEMS fabrication to design at the micrometer scale. No books required, all is provided online and includes reading, animations, and streaming lecture educational materials.

MEMS 2292 - MEMS Design Lab

1 credit hour(s) (Prerequisites: MEMS 1002 + MEMS 1092; or department approval) (Pre- or corequisite: MEMS 2206)

Focuses on Microelectromechanical (MEMS) component design. Introduces design methods and standards utilizing MEMS Computer Aided Design (CAD) software. Students will design several different MEMS components and the micrometer scale, and apply the acquired skills and knowledge to complete a semester project.
Note(s)
(45 lab hours per term)

Military Science

MSL 1092 - Foundations of Officership Lab

1 credit hour(s) (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 credit hour(s) 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 credit hour(s) 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 credit hour(s) (Corequisite: MSL 1102)

Continuation of MSL 1092.

MSL 2092 - Individual Leadership Studies Lab

1 credit hour(s) (Corequisite: MSL 1101)

Builds on the topics covered in MSL 1092 and MSL 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 in a tactical environment.

MSL 2192 - Individual Leadership Studies Lab

1 credit hour(s) (Corequisite: MSL 2202)

Continuation of MSL 2092.

MSL 2201 - Individual Leadership Studies

2 credit hour(s) 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 credit hour(s) 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 credit hour(s) Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that for 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 credit hour(s) (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 credit hour(s) (Corequisites: MSL 1102 or MSL 2202)

Continuation of MSL 2220.

Music

MUS 1103 - Fundamentals of Music

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

(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, trials, dictating simple rhythmic and melodic patterns.

MUS 1111 - Class Piano I

3 credit hour(s) Beginning repertoire and sight-reading, basic scale and chord patterns in major keys. For the complete beginner.

MUS 1139 - Early Music Appreciation

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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.

MUS 1172 - Introduction To Jazz

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Introduces jazz as a modern musical form and emphasizes its evolution during the 20th century.

MUS 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

MUS 2271 - Music Today

3 credit hour(s) (Prerequisite: RDG 0950)

This course is a study of music in the United States, how Western art music, folk music, sacred music, and popular music developed from America's early beginnings to modern times, with a focus on the societal history that shaped the music to its modern cultural influences.

Native American Studies

NATV 1150 - Introduction to Native American Studies

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of Native Americans.

Natural Science

NS 1010 - Physical Science for Teachers

4 credit hour(s) (Prerequisites: ENG 1101 or appropriate placement scores)

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 credit hour(s) (Prerequisites: ENG 1101 or appropriate placement scores)

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 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

NS 2010 - Environmental Science for Teachers

4 credit hour(s) (Prerequisite: ENG 1101)

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.

Naval Science Studies

NAVS 1101 - Principles and Concepts of Naval Science

3 credit hour(s) Introduces the naval service, customs, traditions, courtesies and naval officers communities. Fall only.

NAVS 1105 - Naval Ship Systems I

3 credit hour(s) Introduces naval engineering systems concepts and practices. Spring only.

NAVS 1192 - Naval Professional Laboratory

1 credit hour(s) Offers drills and information for NROTC students. Fall, spring only.
Note(s)
30 lab hours

NAVS 2201 - Naval Ship Systems II

3 credit hour(s) Explores the principles of naval weapons systems. Fall only

NAVS 2202 - Sea Power

3 credit hour(s) Surveys US naval history from the American Revolution to the present. Fall only.

NAVS 2203 - Navigation

3 credit hour(s) Offers theory, principles and procedures of ship coastal and celestial navigation. Spring only.

NAVS 2204 - Naval Operations

3 credit hour(s) 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 credit hour(s) Surveys evolution of the basic principles and techniques of warfare throughout history. Fall only, even years.

NAVS 2241 - Leadership & Management

3 credit hour(s) Explores the structure and principles of naval leadership and management. Fall only.

NAVS 2247 - Principles of Naval Leadership

3 credit hour(s) Examines the structure and principles of naval leadership and management. Spring only.

NAVS 2251 - Amphibious Warfare

3 credit hour(s) Explores the concepts, techniques and history of amphibious warfare. Fall only, odd years.

Nursing

NURS 1002 - Strategies for Nursing Effectiveness

2 credit hour(s) (Prerequisite: Department approval)

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 credit hour(s) (Prerequisites: MATH 1210 or higher + department approval)

Presents methods of dosage calculations for oral and parental medications, including intravenous therapy and pediatric dosages.

NURS 1080 - Introduction to Nursing

9 credit hour(s) (Prerequisite: BIO 2210 + BIO 2292 + ENG 1101 + NUTR 2110 + PSY 1105 + department approval) (Pre- or corequisite: NURS 1007 + BIO 2310 + BIO 2392)

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 hours/180 clinical hours)

NURS 1092 - Supplemental Lab (CR/NC)

1 credit hour(s) (Prerequisite: department approval) (Corequisite: NURS 1080)

Designed to provide nursing students the opportunity for additional practice of nursing skills in the campus laboratory before going into the clinical setting.

NURS 1096-1996 - Special Topics

1-10 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

NURS 1580 - Nursing Care of the Adult Client

9 credit hour(s) (Prerequisites: BIO 2310 + BIO 2392 + NURS 1007 + NURS 1080 + department approval) (Pre- or corequisite: 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 hours/180 clinical hours)

NURS 1592 - Supplemental Lab (CR/NC)

1 credit hour(s) (Prerequisite: department approval) (Corequisite: NURS 1580)

Designed to provide nursing students the opportunity for additional practice of nursing skills in the campus laboratory before going into the clinical setting.

NURS 2002 - Pharmacology in Nursing

3 credit hour(s) (Prerequisites: BIO 2310 + BIO 2392 + department approval)

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 pharmackinetics, pharmacodynamics, therapeutic uses, adverse reactions, precautions and contraindications.

NURS 2080 - Family Nursing Across the Lifespan

7 credit hour(s) (Prerequisite: NURS 1580 + NURS 1592 + NURS 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 hours/135 clinical hours)

NURS 2084 - Concepts for LPN to RPN Transitioning Students

2 credit hour(s)

(Pre- or corequisites: ENG 1101 + NUTR 2110 + BIO 2110 + BIO 2192 + BIO 2310 + BIO 2392 + PSY 1105 + PSY 2220 + NURS 1007 + NURS 2002 + department approval)

Facilitates the transition from the role of Licensed Practical Nurse to that of a student preparing for the role of Registered Nurse. The focus is the transformation of Professional Practice guided by paradigms, core concepts and competencies. Required for ALL LPNs for advanced placement in the Associate Degree Nursing program. Current LPN State of New Mexico license required for enrollment.

NURS 2096-2996 - Special Topics

1-10 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

NURS 2515 - Manager of Care

1 credit hour(s) (Prerequisite: NURS 2580 + department approval)

Introduces management principles to prepare the ADN nurse to manage care of groups of clients. Clinical application in NURS 2680.

NURS 2580 - Family Nursing

10 credit hour(s) (Prerequisites: NURS 1580 + NURS 2002 + PSY 1105 + PSY 2220 + department approval) (Pre- or corequisite: BIO 2110 + BIO 2192 + ENG 1101 + MATH 1210)

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.
Note(s)

75 theory hours

225 clinical hours

NURS 2680 - Complex Health Problems

9 credit hour(s) (Prerequisites: NURS 2580 + department approval) (Pre- or corequisite: IT 1010)

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. (60 theory hours/225 clinical hours)

Nursing Assistant

NA 1015 - Nursing Assistant

6 credit hour(s)

(Prerequisite: RDG 0950 + ENG 0750 or ESOL 0751 + MATH 0750 or appropriate placement scores) (Pre- or corequisite: HLTH 1001*)

Students learn basic anatomy and physiology, communication and clinical math skills. Includes basic patient care skills necessary to work in a nursing home, private home or hospital setting. 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 hours/45 lab hours/45 clinical hours)
Note(s)

* HLTH 1001 must be completed prior to beginning the clinical portion of the course. The clinical portion is designated by HOSP in the CNM Schedule of Classes

At the completion of this course, students are eligible to take the state certification exam (CNA) and will also receive a Nursing Assistant, Certificate of Achievement

Nursing Refresher

NR 2110 - Nursing Refresher Course

7 credit hour(s) (Prerequisite: Active or temporary New Mexico license to practice as an LPN or RN + A current professional CPR card) (Corequisite: NR 2190)

Course is designed to provide nurses with an opportunity to update their knowledge and skills of pharmacology, dosage calculation and medical surgical nursing.

NR 2190 - Nurse Refresher Clinical Application

2 credit hour(s)

(Prequisite: Active or temporary New Mexico license to practice as an LPN or RN + A current professional CPR card) (Corequisite: NR 2110)

Course is designed to provide nurses with an opportunity to update their practice in a medical surgical or skilled nursing facility.

90 Clinical Hours

Nutrition

NUTR 1010 - Personal Practical Nutrition

3 credit hour(s) (Pre-or corequisite: ENG 0950 or appropriate placement scores)

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 1015 - Introduction to Medical Nutrition Therapy

3 credit hour(s) (Pre- or corequisite: NUTR 1010)

This course explores the fundamentals of medical nutrition therapy for various symptoms and disease states. It is intended for students enrolled in the Dietary Manager program.

NUTR 1020 - Introduction to Sports Nutrition

3 credit hour(s) (Prerequisite: ENG 0950, RDG 0950, MATH 0930 or appropriate placement scores.)

This course will explore the role of nutrition in physical performance of competitive and recreational sports participants. This course can be used in place of FITT 1570 for the Fitness Technician program.

NUTR 1090 - Dietary Manager Internship I

2 credit hour(s) (Pre- or corequisite: CULN 1103 + NUTR 1010 + NUTR 1015 or departmental approval)

Provides a learning experience in a healthcare facility with emphasis on developing skills in Nutrition/Medical Nutrition Therapy and Sanitation/Food Safety. This is an unpaid work experience requiring a minimum of 90 hours. NUTR 1090 and NUTR 1091 may be taken simultaneously upon department approval.

NUTR 1091 - Dietary Manager Internship II

2 credit hour(s) (Pre- or corequisite: [CULN 1010 or CULN 1100] + HT 2201 or department approval)

Provides a learning experience in a healthcare facility with emphasis on developing skills in Nutrition/Medical Nutrition Therapy and Sanitation/Food Safety. This is an unpaid work experience requiring a minimum of 90 hours. NUTR 1090 and NUTR 1091 may be taken simultaneously upon department approval.

NUTR 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)

All courses ending in 96 are special topics

NUTR 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

NUTR 2110 - Human Nutrition

3 credit hour(s) (Pre- or corequisite: CHEM 1410 or CHEM 1710 or BIO 1410 or appropriate placement scores)

Introduces nutrition as it affects normal body function and total health. Designed for health majors who will use this information in various professions.

Office Technology

OTEC 1096-1996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

OTEC 1101 - Beginning Keyboarding

3 credit hour(s) Develops proper keyboarding technique to achieve speed and accuracy. A minimum average of 25 wpm on three five-minute timings is required. This course will integrate keyboarding instruction with mouse navigation, the Internet, file management, and word processing.
Note(s)

30 theory hours

45 lab hours

OTEC 1143 - Word Processing

3 credit hour(s) (Prerequisites: IT 1010 + OTEC 1101, recommended prerequisite: OTEC 1192 or department approval)

Presents business document preparation including creating, formatting, proofreading, and editing using the beginning and intermediate functions of MS Word. (30 theory/45 lab hours)

OTEC 1161 - Records and Information Management

2 credit hour(s) (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 Administration (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.
Note(s)
(30 theory hours per term)

OTEC 1170 - Business Telephone Techniques

1 credit hour(s) Presents concepts to develop effective speaking, listening and questioning skills. Methods for handling incoming calls, outbound calls, customer orders, customer problems and customer complaints.
Note(s)
(15 theory hours per term)

OTEC 1171 - Working with the Challenging Customer

1 credit hour(s) Presents concepts to enhance student's ability to act effectively when working with the challenging customer for the purpose of promoting customer satisfaction.
Note(s)
(15 theory hours per term)

OTEC 1173 - Time Management Skills

1 credit hour(s) Presents principles and activities to aid the student in applying time management skills in a personal and professional environment.
Note(s)
(15 theory hours per term)

OTEC 1175 - Computers in the Medical Office

2 credit hour(s) (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.
Note(s)

15 theory hours

45 lab hours

OTEC 1192 - Keyboard Skillbuilding

2 credit hour(s) (Prerequisite: OTEC 1101)

Continues development of speed and accuracy. A minimum average speed of 35 wpm on three five-minute timings is required. (15 theory hours/45 lab hours).

OTEC 1193 - Keyboard Skillbuilding II

1 credit hour(s)

(Prerequisite: OTEC 1192)

Focuses on building speed and accuracy. A minimum average speed of 45 wpm on three five-minute timings is required. (45 lab hours).

OTEC 2095 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval. Recommended prerequisites: OTEC 1143 + BA 1121)

Requires a minimum of 135 hours in a new office-related position. If the student is currently employed in area of study, the 135 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.
Note(s)

135 lab hours

OTEC 2096-2996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

OTEC 2097 - Independent Study

1-6 credit hour(s) (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

3 credit hour(s) (Prerequisite: department approval; recommended prerequisite: OTEC 1143 + BA 1121).

Requires a minimum of 135 hours at office-related supervised workstations. If the student is currently employed in area of study, the 135 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.
Note(s)

135 lab hours

OTEC 2200 - Advanced Word Processing

3 credit hour(s) (Prerequisite: OTEC 1143. Recommended prerequisite: OTEC 1193). (Pre- or corequisite: CIS 1173)

Presents advanced applications for preparing business document integration.
Note(s)
(30 theory + 45 lab hours per term)

OTEC 2231 - Business Editing Techniques

3 credit hour(s) 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.

Note(s)
(45 theory hours per term)

OTEC 2260 - Business Procedures

3 credit hour(s) (Prerequisite: OTEC 1143 + BA 1121. Recommended prerequisite: OTEC 1193 + BA 1122) (Pre- or corequisite: CIS 1173)

Covers office procedures, technology, human relations, ethics, telecommunications and job portfolio.
Note(s)

45 theory hours

OTEC 2270 - Medical Transcription

3 credit hour(s) (Pre- or corequisites: HIT 1020 + OTEC 1143 + OTEC 1192 + 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.
Note(s)
(30 theory + 45 lab hours per term)

OTEC 2999 - Capstone Course

1 credit hour(s) (Prerequisite: OTEC 2231 + OTEC 2260 or department approval)

Focuses on assessment of student learning outcomes for program of study.
Note(s)

Taken in student's last term

Paralegal Studies

PL 1096-1996 - Special Topics

1-3 credit hour(s) (Prerequisite: departmant approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

PL 1110 - Introduction to Paralegal Studies

3 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 or appropriate placement scores, Recommended Prerequisite: IT 1010)

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 credit hour(s) (Prerequisites: ENG 0950 + RDG 0950 or appropriate placement scores, 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 credit hour(s) (Prerequisites: 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 credit hour(s) (Prerequisite: BA 1121 + 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 1150 - Court Operations and Ethics

3 credit hour(s) This course introduces concepts about the New Mexico judiciaries, includes tracking of a civil and criminal case in each court. It also introduces concepts such as ethical and specific court operation issues with an emphasis on ethics in the workplace.

PL 2095 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Provides the opportunity to perform 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. (0 theory hours/135 lab hours)

PL 2096-2996 - Special Topics

1-3 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

PL 2097 - Independent Study

1-9 credit hour(s) (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

3 credit hour(s) (Prerequisite: department approval)

Provides the opportunity to perform 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. (0 theory hours/135 lab hours)

PL 2120 - Civil Litigation

3 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (Prerequisites: 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 credit hour(s) (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 credit hour(s) (Prerequisites: PL 2120 or PL 2130; PL 2140 + PL 2150 + PL 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 credit hour(s) (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.

PL 2233 - Computer Applications in Law Practice

1 credit hour(s) (Prerequisite: CIS 1120 + PL 1130 + PL 1140)

Covers law-oriented concepts and applications using word processing, spreadsheets and data management programs.

PL 2236 - Specialized Legal Software

1 credit hour(s) (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.

PL 2415 - Business Organizations

3 credit hour(s) (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 credit hour(s) (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.

PL 2425 - Domestic Relations

3 credit hour(s) (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 credit hour(s) (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 credit hour(s) (Prerequisite: PL 2120 + PL 2140 + PL 2150)

Implements concepts learned in Civil Litigation through student participation in the hypothetical case and study, completing more sophisticated tasks in civil litigation, evidence rules, concepts and objections.

PL 2440 - Criminal Litigation II

3 credit hour(s) (Prerequisite: PL 2130 + PL 2140 + PL 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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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

3 credit hour(s) (Prerequisite: PL 1140 or department approval)

Focuses on representing clients through the Social Security administration process, disability evaluation, procedural issues and regulations, federal law and medical terminology.

PL 2470 - Bankruptcy Law

1 credit hour(s) (Prerequisite: PL 1140 or department approval)

Focuses on bankruptcy practice, Bankruptcy Code and Rules of Bankruptcy Procedure.

PL 2520 - Mediation

3 credit hour(s) (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 credit hour(s) (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.

Patient Care Tech

PCT 1015 - Patient Care Tech

6 credit hour(s) (Prequisites: HLTH 1001 + NA 1015 + RDG 0950 + ENG 0750 or ESOL 0751 + MATH 0750 or appropriate placement scores or department approval)

Provides students who have successfully completed the Nursing Assistant course with instruction and laboratory practice of the skills and knowledge needed to function as a Patient Care Tech in the acute care setting. Theory provides instruction on medical terminology, medical abbreviations and health unit coordinator skills. Lab provides instruction and practice of sterile technique, venipuncture, urinary catheterization, sterile wound care and point of care testing.
Note(s)

60 theory hours

90 lab hours

PCT 1090 - Patient Care Tech Clinical

2 credit hour(s) (Prerequisite: RDG 0950 + ENG 0750 or ESOL 0751 + MATH 0750 or appropriate placement scores) (Correquisite: PCT 1015)

Provides students who have successfully completed the Patient Care Tech course with clinical experience in an acute care setting or clinic. Students will perform the skills within the role of the patient care tech including health unit coordinator duties, on various inpatient units. Background check and drug screen required. (0 theory hours/90 clinical hours)

Pharmacy Technician

PT 1003 - Pharmacy Calculations

3 credit hour(s) (Prerequisite: CHEM 1410 + CHEM 1492 + department approval) (Pre- or corequisite: IT 1010). (Corequisite: PT 1010 + PT 1015 + PT 1092)

Provides skills in pharmaceutical calculations necessary for safely compounding and preparing prescriptions or other pharmacy products.

PT 1010 - Introduction to Pharmacy Technology

3 credit hour(s) (Prerequisite: ENG 0950) (Corequisite: PT 1003 + PT 1015 + PT 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 credit hour(s) (Corequisite: PT 1010 + PT 1003 + PT 1092)

Provides an introduction to basic human anatomy and physiology, with emphasis on physiology as the foundation for pharmacology.

PT 1092 - Pharmacy Technician Lab I

2 credit hour(s) (Corequisite: PT 1003 + PT 1010 + PT 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). (0 theory hours/90 lab hours)

PT 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(All courses ending in 96 are special topics) See *Schedule of Classes*.

PT 1510 - Advanced Pharmacy Technology

3 credit hour(s) (Prerequisite: PT 1010 + PT 1003 + PT 1015 + PT 1092 + IT 1010 + HLTH 1001) (Pre- or corequisites: COMM 1130 or COMM 2221 or COMM 2225 or COMM 2232) (Corequisite: PT 1515 + PT 1590 + PT 1592)

Continues study of dosage forms and routes of administration; 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 credit hour(s) (Corequisite: PT 1510 + PT 1590 + PT 1592)

Presents study of therapeutic drug categories, how drugs produce their effects and common side effects.

PT 1590 - Pharmacy Technician Practicum

5 credit hour(s) (Corequisite: PT 1510 + PT 1515 + PT 1592)

Provides the opportunity in institutional and community pharmacies for practical experience in applying what they have learned in classrooms and labs. (0 theory hours/225 clinical hours)

PT 1592 - Pharmacy Technician Lab II

2 credit hour(s) (Corequisite: PT 1510 + PT 1515 + PT 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). (0 theory hours/90 lab hours)

Philosophy

PHIL 1102 - Ethics in Society

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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.

PHIL 1156 - Logic and Critical Thinking

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores, see **Prerequisite Requirement Guide**)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

PHIL 2244 - Introduction to Existentialism

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Focuses on the development of existentialist themes including authenticity, freedom, and meaninglessness from the nineteenth century to today. Examines representative authors in the tradition such as Kierkegaard, Nietzsche, Sartre, and de Beauvoir. Explores the effects of existentialism within philosophy and culture at large.

PHIL 2245 - Business Ethics

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score)

Provides a forum for discussion of the ethical and social problems affecting the medical professional and the practice of medicine.

PHIL 2248 - Ethics Of Technology

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score)

Introduces formal deductive logic: propositional logic, truth tables, argument forms and fallacies, predicate (symbolic) logic and method of proof.

Phlebotomy

PHLB 1010 - Phlebotomy Theory

4 credit hour(s) (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores; HLTH 1001). Corequisites: PHLB 1092 or department approval)

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.
Note(s)

A catalog change was made per catalog corrections team.

PHLB 1090 - Clinical Phlebotomy

3 credit hour(s) (Pre- or corequisite: PHLB 1010 + PHLB 1092)

Provides opportunity for students to practice phlebotomy procedures on actual patients in area hospitals and clinics. (0 theory hours/135 clinical hours)
Note(s)

A catalog change was made per catalog corrections team.

PHLB 1092 - Phlebotomy Lab

2 credit hour(s) (Corequisite: PHLB 1010 or department

approval)

Provides opportunity to practice phlebotomy skills and apply theory using artificial arms and human subjects. (0 theory hours/90 lab hours)
Note(s)

A catalog change was made per catalog corrections team.

PHLB 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

Photonics

PHOT 1003 - Fundamentals of Photonics

3 credit hour(s) This course presents: the elements of fiber optics including; theory and operation of fiber optics; integrated optics; optical circuitry. The course also presents light propagation theories. Safety procedures concerning lasers and related equipment are presented in this course.
Note(s)

30 theory hours

45 lab hours

PHOT 1010 - Fiber Optics

3 credit hour(s) (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 as detectors for fiber optic systems, isolators, attenuators, circulators, couplers, cables, connectors, switches, pump lasers, transmission systems and repeaters.
Note(s)
30 theory + 45 lab hours

PHOT 2001 - Optics

6 credit hour(s) (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.
Note(s)
60 theory + 90 lab hours

PHOT 2003 - Photonics and Laser Systems

4 credit hour(s) (Prerequisite: PHOT 1003)

This course applies the principles presented in PHOT 1003 as they relate to laser systems and photonics enabled technologies. (30 theory + 90 lab)

PHOT 2010 - Advanced Fiber Optics

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

PHOT 2013 - Advanced Photonics and Laser Systems

5 credit hour(s) (Prerequisite: PHOT 2003)

This course is a continuation of PHOT 2003 with further exploration of lasers and optical systems and applied technologies. (30 theory + 135 lab)

PHOT 2025 - Photonics Projects

4 credit hour(s) (Prerequisites: 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.
Note(s)
15 theory + 135 lab hours

PHOT 2030 - Introduction to Biophotonics

3 credit hour(s) (Prerequisite: MATH 0940 or appropriate placement scores)

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.
Note(s)
30 theory + 45 lab hours

PHOT 2035 - Biophotonics Applications

3 credit hour(s) (Prerequisite: PHOT 2030)

Focuses on present-day biophotonics applications.
Note(s)
30 theory + 45 lab hours

PHOT 2095 - Cooperative Education

3 credit hour(s) (Prerequisite: department approval)

Provides the opportunity for the student to work on a cooperative basis in an appropriate training program. Position is paid.

PHOT 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite:Advanced Photonics Technology student)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

PHOT 2097 - Independent Study

1-7 credit hour(s) (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 credit hour(s) (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.

PHOT 2999 - Capstone

3 credit hour(s) (Pre- or corequisite: PHOT 2020)

Capstone projects course.

Physics

PHYS 1010 - Introduction to Physics

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. Recommended prerequisite: MATH 0940)

Surveys basic concepts and phenomena of physics.

PHYS 1092 - Introduction to Physics Laboratory

1 credit hour(s) (Pre- or corequisite: PHYS 1010)

Focuses on experiments and activities investigating physical phenomena and concepts discussed in PHYS 1010.

PHYS 1096-1996 - Special Topics

Special Topics credit hour(s) Presents various topics. **Note(s)**

All courses ending in 96 are special topics

PHYS 1510 - Physics I

4 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores; MATH 1315 or MATH 1415 or MATH 1460. Recommended prerequisite: working knowledge of trigonometry). (Recommended 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 credit hour(s) (Pre- or co-requisite: PHYS 1510).

Emphasizes real-time experiments in mechanics, heat and waves. Introduces computer data collection and analysis. (45 lab hours per term)

PHYS 1610 - Physics II

4 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores; PHYS 1510). (Recommended corequisite: PHYS 1692)

Focuses on electricity, magnetism and optics in non-calculus-based setting.

PHYS 1692 - Physics II Laboratory

1 credit hour(s) (Pre- or co-requisite: PHYS 1610).

Focuses on experiments in electricity, magnetism and optics. Includes some computer simulations and data collection. (45 lab hours per term)

PHYS 1710 - Physics for Scientists and Engineers I

4 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score) (Pre- or corequisite: MATH 1710). (Recommended corequisite: PHYS 1792)

Introduces calculus-based study of mechanics and sound waves for science and engineering students.

PHYS 1792 - Physics for Scientists and Engineers I Laboratory

1 credit hour(s) (Pre- or co-requisite: 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 - Physics for Scientists and Engineers II

4 credit hour(s) (Prerequisite: PHYS 1710). (Pre- or corequisite: MATH 1715) (Recommended corequisite: PHYS 1892)

Emphasizes heat, electricity and magnetism for science and engineering students in calculus-based setting.

PHYS 1892 - Physics for Scientists and Engineers II Laboratory

1 credit hour(s) (Pre- or co-requisite: PHYS 1810).

Focuses on experiments in electricity, magnetism and heat. (45 lab hours per term)

PHYS 2710 - Physics for Scientists and Engineers III

4 credit hour(s) (Prerequisite: PHYS 1810). (Pre- or corequisite: MATH 2710).

Emphasizes optics and topics in modern physics for science and engineering students in calculus-based setting.

Plumbing

PLMB 1105 - Plumbing and Safety Fundamentals

3 credit hour(s) (Prerequisites: ENG 0750 + MATH 0750 or appropriate placement score 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 hours/45 lab hours)

PLMB 1110 - Blueprint Reading

2 credit hour(s) (Prerequisites: ENG 0750 or appropriate placement score)

Explores interpretation of residential and commercial blueprints and isometric drawings. The students are taught the basics of sketching and design. (15 theory hours/45 lab hours)

PLMB 1115 - Introduction to Gas Fitting and Pipe Laying

2 credit hour(s) (Prerequisites: ENG 0750 or appropriate placement score) (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 hours/45 lab hours)

PLMB 1120 - Drain Waste and Vent I

2 credit hour(s) (Prerequisites: ENG 0750 or appropriate placement score) (Pre- or corequisite: PLMB 1105 + PLMB 1110; or department approval)

Emphasizes layout and design of drain and vent systems in residential buildings. (15 theory hours/45 lab hours)

PLMB 1125 - Drain Waste and Vent II

2 credit hour(s) (Pre- or corequisite: PLMB 1105 + PLMB 1120; or department approval)

Describes layout and design of drain and vent systems in commercial buildings. (15 theory hours/45 lab hours)

PLMB 1130 - Piping Systems

2 credit hour(s) (Prerequisites: ENG 0750 or appropriate placement score) (Pre- or corequisites: 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 hours/45 lab hours)

PLMB 1205 - Backflow Prevention

2 credit hour(s) (Prerequisite: PLMB 1130 or department approval)

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 hours/45 lab hours)

PLMB 1210 - Commercial Plumbing

2 credit hour(s) Presents the different aspects of the commercial plumbing industry. (15 theory/45 lab hours)

PLMB 1215 - Plumbing Theory and Repair

2 credit hour(s) (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 hours/45 lab hours)

PLMB 1220 - Plumbing Code Applications

3 credit hour(s) (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 hours/45 lab hours)

PLMB 1225 - Building Maintenance and Repair

2 credit hour(s) (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 hours/45 lab hours)

PLMB 1230 - Hydronics and Plumbing Systems

2 credit hour(s) (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 hours/45 lab hours)

PLMB 1235 - Gas Code Applications

3 credit hour(s) Completion of PLMB Term 1 (PLMB 1105 + OSH 2006 + PLMB 1305 + PLMB 1120 + PLMB 1110 + PLMB 1115 + PLMB 1130)

Prepares the student to take the hands on and written portions of the Journeyman Gasfitters test in the state of New Mexico. (30 theory hours/45 lab hours)

PLMB 1305 - Trades Math

1 credit hour(s) (Prerequisites: ENG 0750 or appropriate placement score)

Includes basic arithmetic, whole numbers, fractions and decimals. Covers volumes, weight measurements and basic algebra as it applies to plumbing.

PLMB 1310 - Journeyman Preparation

3 credit hour(s) 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 1320 - Solar Thermal Systems

3 credit hour(s) Completion of PLMB Term 1 (PLMB 1105 + OSH 2006 + PLMB 1305 + PLMB 1120 + PLMB 1110 + PLMB 1115 + PLMB 1130) and PLMB Term 2 (PLMB 1125 + PLMB 1210 + PLMB 1225 + PLMB 1215 + PLMB 1220 + PLMB 1235)

Introduces Solar Thermal Systems including accessing, installing and evaluating fully operational solar water heating systems. (30 theory hours/45 lab hours)

PLMB 1330 - Energy and Water Conservation Systems

3 credit hour(s) Completion of PLMB Term 1 (PLMB 1105 + OSH 2006 + PLMB 1305 + PLMB 1120 + PLMB 1110 + PLMB 1115 + PLMB 1130) and PLMB Term 2 (PLMB 1125 + PLMB 1210 + PLMB 1225 + PLMB 1215 + PLMB 1220 + PLMB 1235)

Introduces the newest energy saving techniques for homes and commercial applications as they relate to the plumbing field. Including gray water, geo- thermal, energy design and application (LEED). Emphasis on energy saving appliances and low water consumption fixtures. (30 theory hours/45 lab hours)

PLMB 2096-2996 - Special Topics

1-7 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

PLMB 2997 - Independent Study

1-7 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

PLMB 2999 - Plumbing Capstone Course

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies.

Plumbing Apprenticeship

PLAP 1117 - Plumbing Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 1327 - Plumbing Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 Appr

5-7 credit hour(s) (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 credit hour(s) (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.

Political Science

PSCI 1110 - The Political World

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Introduces politics, emphasizing how people can understand their own political systems and those of others.

PSCI 2096-2996 - Special Topics

3 credit hour(s) Presents various topics.
Note(s)
(All courses ending in 96 are special topics) See *Schedule of Classes*.

PSCI 2200 - U.S. Politics

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Surveys American politics: theory of democracy and political institutions, governmental branches and their bureaucracies.

PSCI 2210 - State and Local Politics

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Analyze state and local politics, using New Mexico and other states as examples. Fall, spring only.

PSCI 2220 - Comparative Government and Politics

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Surveys classical and contemporary political ideas and ideologies; introduces many of the enduring political issues, which are presented in descriptive, analytical and normative terms.
Note(s)

A catalog change was made per catalog corrections team.

Portuguese

PORT 1101 - Beginning Portuguese I

4 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

A multimedia course focusing on development of all four language skills using authentic Brazilian models of speech and behavior. Emphasis will be on listening, speaking and cultural understanding.

PORT 1102 - Beginning Portuguese II

4 credit hour(s) (Prerequisite: PORT 1101 or department approval)

A multimedia course focusing on the continued development of all four language skills using authentic Brazilian models of speech and behavior. Emphasis will be on listening, speaking and cultural understanding.

PORT 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(All courses ending in 96 are special topics) See *Schedule of Classes*.

Process Control

PC 2001 - Electromechanical System Troubleshooting

4 credit hour(s) (Prerequisite: ELEC 2001 or ELEC 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.
Note(s)
30 theory + 90 lab hours

PC 2005 - CIM Theory and Applications and Mobile Robot Design

3 credit hour(s) (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.
Note(s)
30 theory + 45 lab hours

PC 2010 - Robot Theory and Construction Applications

3 credit hour(s) (Prerequisite: ELEC 1005 + ELEC 1020)

Includes theory, operation and maintenance procedures of industrial robots along with DC motors and motordrive circuitry and communications technology. Class will also complete a project (utilizing an industrial robot system) designed and constructed by students.
Note(s)
30 theory + 45 lab hours

Project Management

PM 1096-1996 - Special Topics

1-3 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

PM 1130 - Project Management Fundamentals

3 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores; 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 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950; or department approval)

Focuses on the competencies needed to apply effective project concepts and methodologies to create a positive 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

3 credit hour(s) (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 135 hours and must involve a new learning experience.
Note(s)

135 lab hours

PM 2096-2996 - Special Topics

1-3 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

PM 2097 - Independent Study

1-3 credit hour(s) (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

3 credit hour(s) (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 135 hours and must involve a new learning experience.
Note(s)

135 lab hours

PM 2200 - Budget and Resource Management

3 credit hour(s) (Prerequisite: IT 1010 and 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 credit hour(s) (Prerequisite: PM 1130 or department approval)

Covers various forms of project contracts and legal documentation. Critical duties preformed by contracting personnel and project managers during the negotiation and contact administration phase of the acquisition process are emphasized.

PM 2250 - Advanced Project Management

3 credit hour(s) (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.

Psychology

PSY 1105 - Introduction to Psychology

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score)

Introduces psychology as the scientific study of behavior and mental processes: methodology, psychobiology, learning, memory, personality, psychological disorders, therapy, personality and social psychology.

PSY 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(All courses ending in 96 are special topics) See *Schedule of Classes*.

PSY 2200 - Statistical Principles

3 credit hour(s) (Prerequisite: PSY 1105; MATH 0940 or appropriate placement scores. 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 credit hour(s) (Prerequisite: PSY 1105)

Emphasizes physical, social, emotional and intellectual development across the life span, including professional research and applications.

PSY 2231 - Human Sexuality

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score. 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 credit hour(s) (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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement score. 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 credit hour(s) (Prerequisite: PSY 1105 or BIO 1410/ BIO 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 credit hour(s) (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 credit hour(s) (Prerequisite: PSY 1105)

Presents theories and research on various mental processes: memory (encoding, storage and retrieval), attention, comprehension, categorization, reasoning, problem solving, solving, language and motor skills. Spring only.

PSY 2271 - Social Psychology

3 credit hour(s) (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 2280 - Health Psychology

3 credit hour(s) (Prerequisite: PSY 1105)

Introduces health psychology, which studies how thought and behavior influence health including how stress contributes to illness and disease. Teaches methods to promote healthy changes and skills for coping with stress, pain, and chronic illness.

PSY 2289 - Death and Dying

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Examines psychological, emotional and sociological aspects of death in American culture.

Radiologic Technology

RADT 1003 - Introduction to Radiologic Technology

1 credit hour(s) (Prerequisite: ENG 1101 + BIO 2210 + BIO 2292 + BIO 2310 + BIO 2392 + MATH 1210 or MATH 1310 + PSY 1105 + department approval) (Corequisite: RADT 1005 + RADT 1070 + RADT 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.

RADT 1005 - Fundamentals of Radiography

3 credit hour(s) (Corequisite: RADT 1003 + RADT 1070 + RADT 1090)

Presents the production of 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 compensation will be studied and practiced.

RADT 1070 - Radiographic Positioning I

3 credit hour(s) (Corequisite: RADT 1003 + RADT 1005 + RADT 1090)

Presents the fundamental 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 credit hour(s) (Corequisite: RADT 1003 + RADT 1005 + RADT 1070 + HLTH 1001)

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. (0 theory hours/225 clinical hours)

RADT 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

RADT 1507 - Patient Care and Management Radiography

2 credit hour(s) (Prerequisite: RADT 1003 + RADT 1005 + RADT 1070 + RADT 1090) Corequisites: RADT 1520 + RADT 1570 + RADT 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. (15 theory hours/45 lab hours)

RADT 1520 - Radiation Biology and Protection

2 credit hour(s) (Corequisites: RADT 1507 + RADT 1570 + RADT 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 devices, units of measurement and sources of radiation exposure are covered.

RADT 1570 - Radiographic Positioning II

3 credit hour(s) (Corequisite: RADT 1507 + RADT 1520 + RADT 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 gastrointestinal, urinary, respiratory, biliary and cardiovascular systems utilized to study the factors that govern and influence the production recording of radiologic images.
Note(s)
30 theory + 45 lab hours

RADT 1590 - Clinical Radiography II

4 credit hour(s) (Corequisite: RADT 1507 + RADT 1520 + RADT 1570)

Continues the 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. (0 theory hours/180 clinical hours)

RADT 2005 - Introduction to Quality Assurance

2 credit hour(s) (Prerequisite: RADT 1507 + RADT 1520 + RADT 1570 + RADT 1590) (Corequisite: RADT 2010 + RADT 2090 + RADT 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 test and procedures to evaluate these components are discussed.

RADT 2010 - Radiographic Imaging I

3 credit hour(s) (Corequisite: RADT 2005 + RADT 2090 + RADT 2092)

Covers film and electronic imaging with related accessories. Employs radiographic film critique to emphasize the methods of diagnostic quality control. (30 theory hours/45 lab hours)

RADT 2090 - Clinical Radiography III

6 credit hour(s) (Corequisite: RADT 2005 + RADT 2010 + RADT 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.
Note(s)
270 clinical hours

RADT 2092 - Radiographic Film Critique Lab

1 credit hour(s) (Prerequisite: RADT 1507 + RADT 1520 + RADT 1570 + RADT 1590). Corequisite: RADT 2005 + RADT 2010 + RADT 2090)

Provides 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.
Note(s)
45 contact hours

RADT 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

RADT 2404 - Radiographic Imaging II

1 credit hour(s) (Prerequisite: RADT 2005 + RADT 2010 + RADT 2090 + RADT 2092) (Corequisite: RADT 2408 + RADT 2410 + RADT 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 credit hour(s) (Corequisite: RADT 2404 + RADT 2410 + RADT 2490)

Continues course of study begun in RADT 2005. Surveys additional body systems and the relative pathologies affecting them. Radiographic imaging methods will be considered to demonstrate how to best demonstrate these pathologies.

RADT 2410 - Radiographic Physics and Instrumentation

3 credit hour(s) (Corequisite: RADT 2404 + RADT 2408 + RADT 2490)

This course is a comprehensive review of the physical principles of diagnostic radiography.

RADT 2490 - Clinical Radiography IV

6 credit hour(s) (Corequisite: RADT 2404 + RADT 2408 + RADT 2410)

Continues course of study begun in RADT 2090 with indirect supervision, a 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. (0 theory hours/270 clinical hours)

RADT 2810 - Radiologic Technology Seminar

2 credit hour(s) (Prerequisite: RADT 2404 + RADT 2408 + RADT 2410 + 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.

RADT 2890 - Clinical Radiography V

8 credit hour(s) (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. (0 theory hours/360 clinical hours)

Reading

RDG 0196-0996 - Special Topics

1-3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

RDG 0750 - Reading Improvement

3 credit hour(s) Prerequisite: ENG 0550 or appropriate placement scores

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.
Note(s)
45 theory + 15 lab hours

RDG 0950 - Reading and Critical Thinking

3 credit hour(s) (Prerequisite: RDG 0750 or appropriate placement scores)

Introduces reading required for success in college. Students work on comprehensive, problem solving, note-taking, summarizing and computer-assisted research skills.

RDG 1096-1996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(All courses ending in 96 are special topics) See *Schedule of Classes*.

Religion

RLGN 1105 - Religion and the Arts

3 credit hour(s)

(Prerequisite: RDG 0950 or appropriate placement scores)

(Recommended Prerequisite: ENG 1101)

Introduction to the relationship between religion and culture as reflected in the arts. Surveys the roles and functions of visual, performing, and literary arts and architecture in experiencing and expressing the social and doctrinal dimensions of several indigenous and major world religions.

RLGN 1107 - Living World Religions

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores.)

Introduces the academic study of religion, focusing on major world religions: religions on antiquity, Hinduism, Buddhism, Taoism, Judaism, Christianity, Islam and religion in primal cultures.

RLGN 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

RLGN 2240 - Ancient Religions

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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).

RLGN 2264 - Western Religions

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

Provides an introduction and overview of the major Western Religions, specifically Zoroastrianism, Judaism, Christianity and Islam, focusing on history, belief systems, scripture and material expressions.

Respiratory Therapy

RT 1010 - Respiratory Therapy Principles and Practices I

0 credit hour(s) (Corequisite: RT 1020 + RT 1070 + RT 1090)

Introduces respiratory therapy as a health sciences professional. 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.

RT 1020 - Physics of Respiratory Therapy

3 credit hour(s) (Corequisite: RT 1010 + RT 1070 + RT 1090)

Covers basic concepts of physics related to physiology of the lungs, gas laws, gas flow and mechanics of breathing. Concepts are applied to operation of respiratory therapy equipment.

RT 1030 - Pharmacology of Respiratory Therapy

3 credit hour(s) (Corequisites: RT 1540 + RT 1510 + RT 1570 + RT 1090)

Presents concepts and principles of pharmacologic agents used in cardiopulmonary care. Includes study of biologic interactions, dosage calculations, side effects, indications of medication, therapeutic, diagnostic procedures and ethical and legal issues.

RT 1070 - Respiratory Therapy Principles and Practices I

4 credit hour(s) (Prerequisites: BIO 2110 + BIO 2192 + BIO 2210 + BIO 2292 + BIO 2310 + BIO 2392 + ENG 1101 + HLTH 1001 + IT 1010 + MATH 1210 + PHIL 2247 + department approval) (Corequisites: RT 1010 + RT 1020 + RT 1090)

Introduces respiratory therapy as a health sciences professional. 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)

RT 1090 - Clinical Experiences I

4 credit hour(s) (Corequisites: RT 1010 + RT 1070 + RT 1020)

Provides supervised clinical experiences in area hospitals and health care facilities related to first term courses. (0 theory hours/180 clinical hours)

RT 1096-1996 - Special Topics

1-6 credit hour(s) (Prerequisite: program director approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

RT 1510 - Respiratory Therapy Principles and Practices II

0 credit hour(s) (Corerequisite: RT 1030 + RT 1540 + RT 1570 + 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.

RT 1540 - Cardiopulmonary Pathophysiology I

1 credit hour(s) (Corequisites: RT 1030 + RT 1510 + RT 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 1570 - Respiratory Therapy Principles and Practices II

4 credit hour(s) (Prerequisites: RT 1010 + RT 1070 + RT 1020 + RT 1090) (Corequisites: RT 1030 + RT 1510 + 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)

RT 1590 - Clinical Experiences II

4 credit hour(s) (Corequisites: RT 1030 + RT 1510 + RT 1570 + RT 1540)

Provides supervised clinical experiences in area hospitals and health care facilities related to second term courses. (0 theory hours/180 clinical hours)

RT 1592 - Supplemental Skills Lab

1 credit hour(s) (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 - Advanced Respiratory Therapy I

0 credit hour(s) (Corequisite: RT 2040 + RT 2070 + RT 2090)

Presents basic concepts of adult 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.

RT 2040 - Cardiopulmonary Pathophysiology II

1 credit hour(s) (Corequisites: RT 2010/RT 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 2070 - Advanced Respiratory Therapy I

4 credit hour(s)

(Prerequisites: RT 1030 + RT 1510 + RT 1570 + RT 1540 + RT 1590) (Corequisites: RT 2010 + RT 2040 + RT 2090)

Presents basic concepts of adult 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.
Note(s)

45 theory hours

45 lab hours

RT 2090 - Advanced Clinical Experiences I

4 credit hour(s) (Corequisite: RT 2010/RT 2070 +RT 2040)

Introduces skills for basic respiratory care in adult 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.
Note(s)
180 clinical hours

RT 2092 - Advanced Supplemental Skills Lab

1 credit hour(s) 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

3-6 credit hour(s) (Prerequisite: department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

RT 2097 - Independent Study

1-6 credit hour(s) (Prerequisite: department approval)

Provides opportunity for independent study in respiratory care such as preparation for licensing/credentialing exams.

RT 2098 - Internship

3-6 credit hour(s) (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 - Advanced Respiratory Therapy II

0 credit hour(s) (Corequisite: RT 2440 + RT 2470 + RT 2490)

Presents cardiopulmonary assesment 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 and advanced cardiac life support using state of the art equipment and computer simulation in the learning laboratory.

RT 2440 - Cardiopulmonary Pathophysiology III

1 credit hour(s) Corequisite: RT 2410/RT 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 2470 - Advanced Respiratory Therapy II

4 credit hour(s) (Prerequisites: RT 2010/RT 2070, RT 2090, RT 2040) (Corequisite: BIO 2310/BIO 2392, RT 2410 + 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.
Note(s)
45 theory + 45 lab hours

RT 2490 - Advanced Clinical Experiences II

4 credit hour(s) RT 2440 (Corequisite: RT 2410/RT 2470 + RT 2490)

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.
Note(s)
180 clinical hours

RT 2810 - Advanced Respiratory Therapy III

0 credit hour(s) (Prerequisite: RT 2490). RT 2870 (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.

RT 2840 - Cardiopulmonary Pathophysiology IV

1 credit hour(s) (Corequisite: RT 2810/RT 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 & burn, COPD, respiratory failure, ARDS.

RT 2870 - Advanced Respiratory Therapy III

4 credit hour(s) (Prerequisites: RT 2410 + RT 2470 + RT 2440 + RT 2490) (Corequisites: RT 2840 + RT 2890 + RT 2810)

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 simulation in the learning laboratory. (45 theory hours/45 lab hours)

RT 2890 - Advanced Clinical Experiences III

4 credit hour(s) (Corequisite: RT 2810/RT 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.
Note(s)
180 clinical hours

Sheet Metal Apprenticeship

SMAP 1115 - Sheet Metal Apprenticeship

5-7 credit hour(s) (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 1125 - Sheet Metal Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (Prerequisite: current full-time employment in the sheet metal industry or division 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 Assn. (SMACNA) manuals.

SMAP 1225 - Sheet Metal Apprenticeship

5-7 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 credit hour(s) (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 processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SkillsUSA/VICA

VICA 2174 - Professional Development

1 credit hour(s) Emphasizes development of goals and commitments, personal awareness, time management, organization and communication.

VICA 2175 - Leadership

1 credit hour(s) 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 credit hour(s) Introduces career information, report writing, conducting interviews, employment skills, communication improvement and interaction with business and industry.

VICA 2178 - Civic Responsibility

1 credit hour(s) Covers various community services in planning and carrying out a community project.

Sociology

SOC 1101 - Introduction To Sociology

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores).

Introduces basic concepts and theories of contemporary sociology: culture, socialization, social groups, deviance, race and ethnicity gender, age, family, medicine and religion.

SOC 2096-2996 - Special Topics

3 credit hour(s) (Prerequisite: RDG 0950 or Accuplacer Reading score of 80 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

SOC 2205 - Crime Public Policy and the Criminal Justice System

3 credit hour(s) (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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s) (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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. Recommended prerequisite: SOC 1101)

Examines theories of deviance and behaviors such as rape, murder, theft, drug use, alcoholism, prostitution, mental disorders and suicide.

SOC 2215 - Criminology

3 credit hour(s) (Prerequisite: SOC 1101)

Examines causes of crime based on sociological factors, the various faces of crime, the criminal past and present and criminology theory.

SOC 2216 - Ethnic and Minority Groups

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. Recommended prerequisite: SOC 1101)

Examines relationships among majority and minority and ethnic groups: prejudice, discrimination, stereotyping, pluralism and social mobility.

SOC 2221 - Global Issues

3 credit hour(s)

(Prerequisite: RDG 0950 or appropriate placement scores)

(Recommended Prequisite: SOC 1101)

Examines the global context of patterns of development and the consequences of globalization. Topics include global conflict, the rise of global capitalism, the impact of globalization on government, and inequality.

SOC 2225 - Sociology of Family

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisites: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores. 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 credit hour(s) (Prerequisite: SOC 1101)

Introduces decision making processes and tools involved in social science research, including surveys, field research, experiments and use of existing sources.

Spanish

SPAN 1101 - Beginning Spanish

4 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (Prerequisite: SPAN 1101 or Spanish placement score of 51 or higher)

Continues course of study begun in SPAN 1101: listening, speaking, grammatical skills. Includes an online workbook and lab manual.

SPAN 1103 - Beginning Spanish I Conversation

3 credit hour(s) (Pre- or corequisite: SPAN 1102 or department approval)

Introduces basic conversational skills and practice speaking Spanish.

SPAN 1111 - Heritage Spanish Language

4 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) (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 2096-2996 - Special Topics

3 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

SPAN 2201 - Intermediate Spanish I

3 credit hour(s) (Prerequisite: SPAN 1102 or Spanish placement score of 71 or higher)

Continues course of study begun in SPAN 1101 and SPAN 1102. Emphasizes expansion of conversational, reading and writing skills. Includes an online workbook and lab manual.

SPAN 2202 - Intermediate Spanish II

3 credit hour(s) (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 credit hour(s) (Pre- or corequisite: SPAN 2202 or department approval)

Emphasizes skills in speaking Spanish.

SPAN 2277 - The Art and Skill of Translation

3 credit hour(s) (Prerequisites: 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 area of journalism, law, business and literature for translation from Spanish to English and form English to Spanish. Class conducted in Spanish.

SPAN 2280 - Introduction to Hispanic Literature

3 credit hour(s) (Prerequisite: SPAN 2202 or SPAN

2276 or SPAN 2376 or department approval)

Presents selected readings from literature written in Spanish by Spanish and Spanish-American authors.

SPAN 2375 - Accelerated Beginning Spanish

6 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scoreor department approval)

Combines SPAN 1101 and SPAN 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 credit hour(s) (Prerequisite: SPAN 1102 or SPAN 2375 or department approval)

Combines SPAN 2201 and SPAN 2202 in one term. Recommended for language enthusiasts or those who have had exposure to Spanish either in the home or from previous study.

Special Education

SPED 2096-2996 - Special Topics

1-6 credit hour(s) Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

SPED 2201 - Education of the Exceptional Person

3 credit hour(s) (Prerequisites: RDG 0950 + ENG 0950 or appropriate placement scores). (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 2233 - Twice Exceptional and Special Populations of Gifted Learners

3 credit hour(s) (Prerequisite: EDUC 2230)

Focuses on special populations of gifted learners possessing unique characteristics and needs. Explores the characteristics, identification, and development of appropriate educational services for twice exceptional and special populations of gifted learners. Designed for those students currently working in education

SPED 2250 - Exceptionalities and Placement

3 credit hour(s) (Prerequisites: 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

3 credit hour(s) (Pre- or 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 credit hour(s) (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 credit hour(s) (Prerequisite: SPED 2250)

This course presents teaching strategies and materials specific to the cirriculum 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 supports student learning. Field experience is required as part of this course.

SPED 2272 - Reading for Special Learners

3 credit hour(s) (Prerequisite: EDUC 2260)

Provides an understanding of concepts and procedures for teaching reading to students with special needs. Emphasis will be placed on formal and informal reading assessment, effective reading practices, research- based reading programs, oral language development, decoding, strategies, phonemic awareness and vocabulary acquisition. Field experience is required as part of this course.

SPED 2290 - Introduction to Special Education

2 credit hour(s) (Prerequisites: RDG 0950 + ENG 0950 or appropriate placement scores). (Corequisite: SPED 2201)

Provides field experience and seminar in special education settings. Students must pass a background check to successfully complete the course requirements.

SPED 2390 - Special Education Supervised Field Experience

3 credit hour(s) (Prerequisite: program department approval)

This course is an advanced supervised fieldwork experience with additional emphasis on collaboration and inclusion. Students are required to meet competencies as defined by the NM Public Education Department through a minimum of 160 contact hours in an approved special education setting. Students will also examine strategies for effective collaboration with parents, colleagues and

administrators. Enrollment in this course requires an applications process.
Note(s)
160 contact hours

Sportscraft/Small Engine

SCSE 1070 - Small Engine Skills Improvement I

3 credit hour(s) Covers the diagnosis and repair of small air-cooled engines, safety, engine identification, special tools, ignition, cooling, lubrication, engine rebuilding and fuel systems.
Note(s)
15 theory + 75 lab hours

SCSE 1075 - Small Engine Skills Improvement II

3 credit hour(s) Presents safe practices in the diagnosis and repair of power equipment, chain saw service and chain sharpening, blower and line trimmer service.
Note(s)
15 theory + 75 lab hours

Surgical Technology

ST 1001 - Introduction to Surgical Technology

2 credit hour(s) (Prequisite: ENG 1101 + MATH 0930 or appropriate placement scores)

This course is designed to give the student a broad overview of the responsibilities of the Surgical Technologist and the operating room environment. This will prepare the student for entrance into the Surgical Technology certificate program.

ST 1010 - Beginning Surgical Technology I

3 credit hour(s) (Prerequisites: BIO 1310/BIO 1392 or BIO 2210/BIO 2292 + BIO 2310 + BIO 2392 + COMM 2221 + HIT 1020 + ST 1001) (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 in surgical procedures.

ST 1092 - Surgical Technology Lab I

6 credit hour(s) (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).

ST 1510 - Beginning Surgical Technology II

3 credit hour(s) (Prerequisites: 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 credit hour(s) (Prerequisite: ST 1092) (Corequisite: ST 1510 + ST 1592)

Applies surgical procedure theory and skills in the clinical setting. (360 clinical hours per term).

ST 1592 - Surgical Technology Lab II

2 credit hour(s) (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 credit hour(s) (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 consideration for genitourinary procedures and surgery, orthopedic surgery, cardiothoracic surgery, peripheral vascular surgery and neurosurgery.

ST 2090 - Surgical Technology Clinical II

8 credit hour(s) (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. (0 theory hours/360 clinical hours)

ST 2092 - Surgical Technology Lab III

2 credit hour(s) (Corequisites: 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).

ST 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisite: CM 2205)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

Surveying

SUR 1015 - Public Lands Survey System Boundaries

3 credit hour(s) Detailed study of the U.S. Public Land Survey System Instructions with special emphasis on New Mexico. Sectionalized land subdivision, corner restoration and field survey.

SUR 1017 - Traffic Control and NSPS Survey Technician Certification Prep

2 credit hour(s) (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."

Teaching and Learning Online

TLOL 1010 - Introduction to Teaching and Learning Online

1 credit hour(s) Department approval.

Intended for higher education faculty or public school teachers interested in teaching online, this course provides for a basic introduction to online teaching and learning, with a focus on developing the knowledge and skills for effectively engaging students utilizing tools in the Blackboard web-based learning management system.

TLOL 1015 - Online Curriculum Design and Instruction

3 credit hour(s) TLOL 1010 or department approval.

Intended for higher education faculty or public school teachers interested in teaching online, this course applies best practices in designing an online courses, with a focus on developing course content, learning activities, and assessments that achieve instructional objectives.

Theatre

THEA 1119 - Introduction to Technical Theatre

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 credit hour(s) Recommended prerequisite: THEA 1122 and Prerequisite: RDG 0950 or appropriate placement scores

Provides students with the fundamental physical, vocal and imaginative skills for acting and performing.

THEA 1121 - Beginning Acting II

3 credit hour(s) Prerequisite: THEA 1120 or department approval and RDG 0950 or appropriate placement scores

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 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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 I

3 credit hour(s) Pre- or corequisite: THEA 1119 or department approval and Prerequisite: RDG 0950 or appropriate placement scores

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 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisite: RDG 0950 or equivalent)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

THEA 2222 - Acting for the Camera

3 credit hour(s) Prerequisite: THEA 1120 or department approval and Prerequisite: RDG 0950 or appropriate placement scores

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 credit hour(s) Recommended prerequisite: THEA 1122 and Prerequisite: ENG 1101 or appropriate placement scores

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.

Truck Driving

TRDR 1102 - Basic Operational Theory

8 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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. (120 theory hours/0 lab hours)

TRDR 1105 - Class B Basic Operational Theory

6 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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 1293 - Class A Basic Operational Lab

3 credit hour(s) (Prerequisite: TRDR 1102 + CDL learner's permit + DOT physical + DOT drug screen + DMV record)

Covers-on-the-driving-range inspection, basic control, shifting, backing, coupling and uncoupling, hazard perception, visual search, speed and space management, preventative maintenance and handling cargo. Students will received a minimum of 20 hours behind-the-wheel driving time. (0 theory hours/135 lab hours)

TRDR 1392 - Class A Advanced Operational Practices

2 credit hour(s) (Prerequisite: TRDR 1102 + TRDR 1293)

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 hour behind-the-wheel driving time. (0 theory hours/90 lab hours)

TRDR 1692 - Class B Operational Lab

3 credit hour(s) (Prerequisite: TRDR 1105 or TRDR 1102 + Department Approval (Includes verification of Minimum Class B CDL Learners Permit + Current DOT Physical and Drug Screen + acceptable MVD Report)

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. This course will also resents 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 25 hours behind-wheel time.
Note(s)
(135 Lab Hours)

TRDR 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite: department approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

TRDR 2097 - Independent Study

1-7 credit hour(s) Focuses on a specific problem while working with an instructor.

Veterinary Technology

VT 1001 - Animal Science Terminology

1 theory credit hour(s) Introduces students to terminology used in a career in animal agriculture or veterinary medicine. Curriculum and instruction presents an overview of topics taught in introductory animal science courses with terms specific to species involved in animal science production and terms related to companion animals.

VT 1003 - Preparation for Professional Success

1 theory credit hour(s) (Recommended Prequisite: IT 0850)

Open to students considering, or preparing to enter, a HWPS Professional Program. Students will explore professional aspects specific to their field of interest, considering various professional attitudes, ethics, and basic client or patient communications. Opportunities will be offered for students to make personal physical or mental adjustments in preparation to succeed in the HWPS Program. (CR/NC)

VT 1004 - Veterinary Medical Terminology

1 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 + MATH 0930; or appropriate placement scores)

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 credit hour(s) (Prerequisite: ENG 1101 + IT 1010 + MATH 1210 or higher except MATH 2110 and MATH 2096-2996 + department approval) (Corequisite: VT 1004 + VT 1008 + VT 1010 + VT 1012 + VT 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 credit hour(s) (Prerequisite: HWPS Basic Math Test score of 85 or higher) (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 credit hour(s) (Prerequisite: RDG 0950 + ENG 0950 + MATH 0930; or appropriate placement scores)

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 credit hour(s) (Corequisite: VT 1004 + VT 1006 + VT 1008 + VT 1010 + VT 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 introductory theory, with opportunities for hands-on experience. (15 theory hours/45 lab hours)

VT 1070 - Animal Comparative Anatomy and Physiology I

3 credit hour(s) (Prerequisite: BIO 1410/BIO 1492 or BIO 1510/1592 + CHEM 1410/ CHEM 1492 or CHEM 1710/CHEM 1792). (Corequisite: VT 1004 + VT 1006 + VT 1008 + VT 1010 + VT 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 & reptile species. Requires hands on laboratory experience including dissection.
Note(s)
30 theory + 45 lab hours

VT 1192 - Supplemental Lab for Veterinary Technology (CR/NC)

1 credit hour(s) (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 credit hour(s) (Prerequisite: VT 1004 + VT 1006 + VT 1008 + VT 1010 + VT 1012 + VT 1070) (Corequisite: VT 1251 + VT 1252 + VT 1272 + VT 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 hours/45 lab hours)

VT 1251 - Radiology for Veterinary Technicians Lecture

1 theory credit hour(s) (Corequisites: VT 1210 + VT 1252 + VT 1272 + VT 1292)

Presents radiography basics including safety measures, film, film storage, generation and analysis of radiographs, developing solutions and processing, tube rating and exposure charts, control factors, radiographic quality, positioning and contrast media.

VT 1252 - Radiology for Veterinary Technicians Laboratory

1 lab credit hour(s) (Corequisites: VT 1210 + VT 1251 + VT 1272 + VT 1292)

Introduces exercises and demonstrations related to veterinary radiology. Includes field trips, exercises and demonstrations at veterinary clinics. (0 theory hours/45 lab hours)

VT 1272 - Surgical Technology for Veterinary Technicians

2 credit hour(s) (Corequisite: VT 1210 + VT 1251 + VT 1252 + VT 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 hours/45 lab hours)

VT 1292 - Veterinary Office Skills Lab

1 credit hour(s) (Corequisite: VT 1210 + VT 1251 + VT 1252 + VT 1272)

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 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. (0 theory hours/45 lab hours)

VT 2010 - Clinical Pathology for Veterinary Technicians I

4 credit hour(s) (Prerequisite: VT 1210 + VT 1251 + VT 1252 + VT 1272 + 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 hours/90 lab hours)

VT 2015 - Non-Infectious and Infectious Diseases for Veterinary Technicians

3 credit hour(s) (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 2096-2996 - Special Topics

1-6 credit hour(s) (Prerequisite: program director approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

VT 2180 - Veterinary Technology Clinical I

4 credit hour(s) (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 hours/135 clinical hours)

VT 2592 - Advanced Supplemental Lab for Veterinary Technology (CR/NC)

1 credit hour(s) (Prequisite: Department Approval)

Provides second-year Veterinary Technology students with the opportunity for additional learning and practice of veterinary technology skills in the campus laboratory. Encourages preparation for the VTNE.

VT 2610 - Clinical Pathology for Veterinary Technicians II

4 credit hour(s) (Prerequisite: VT 2010 + VT 2015 + VT 2180) (Corequisite: VT 2651 + VT 2652 + VT 2674 + VT 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 in house lab kits. (30 theory hours/90 lab hours)

VT 2651 - Anesthesiology for Veterinary Technicians Lecture

2 theory credit hour(s)

(Corequisites: VT 2610 + VT 2652 + VT 2674 + VT 2690)

Studies anesthesia in large and small domestic animals, exotic and laboratory species. Includes preanesthetic evaluation, induction of anesthesia, patient monitoring and recovery, principles of fluid therapy related to anesthesia, dosage calculations, and identification, care, and maintenance of anesthetic machines.

VT 2652 - Anesthesiology For Veterinary Technicians Lab

1 lab credit hour(s)

(Corequisites: VT 2610 + VT 2651 + VT 2674 + VT 2690)

Introduces exercises and demonstrations related to veterinary anesthesiology. May include field trips, exercises and demonstrations and laboratories at veterinary clinics. (0 theory hours/45 lab hours)

45 Lab Hours

VT 2674 - Applied Therapeutics and Care for Veterinary Technicians I

3 credit hour(s) (Corequisite: VT 2610 + VT 2651 + VT 2652 +VT 2690)

Presents skills such as venipuncture, medication administration, IV therapy, bandaging and splinting, catheterization techniques, recumbent patient care and blood transfusions. (30 theory hours/45 lab hours)

VT 2690 - Veterinary Technology Clinical II

4 credit hour(s) (Corequisite: VT 2610 + VT 2651 + VT 2652 +VT 2674)

Applies theory to practice at clinics, performing hands-on duties that include: specimen collection, urinalysis, parasite evaluation, wound management, administration of medication, IV catheterization, venipuncture and client education. (0 theory hours/180 clinical hours)

VT 2803 - Pharmacology for Veterinary Technicians

3 credit hour(s) (Prerequisite: VT 2610 + VT 2651 + VT 2652 + VT 2674 + VT 2690) (Corequisite: VT 2810 + VT 2884 + VT 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 credit hour(s) (Corequisite: VT 2803 + VT 2884 + VT 2892)

Applies theory to practice at veterinary clinics performing duties that includes handling, therapeutics and care of laboratory and exotic animals, surgical assisting and hematological exams. (15 theory hours/180 clinical hours)

VT 2884 - Applied Therapeutic II Avian Laboratory Exotic and Large Animals

4 credit hour(s) (Corequisite: VT 2803 + VT 2810 + VT 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 hours/45 lab hours)

VT 2892 - Dentistry for Veterinary Technicians

1 credit hour(s) (Corequisite: VT 2803 + VT 2810 + VT 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. (0 theory hours/45 lab hours)

Welding

WELD 1001 - Welding Math I

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores or department approval)

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 credit hour(s) (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

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores or department approval)

Provides instruction in area, perimeter and volumes of common structural shapes and common layout techniques supported with mathematical applications.

WELD 1050 - Oxyacetylene Welding and Cutting

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750 or appropriate placement scores 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.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 1092

WELD 1062 - Welding Fundamentals

3 credit hour(s) (Pre- or co-requisites: AUTC 1240 or DETC 1240 or MATT 1240 or PLMB 1235; or department approval)

Designed for non-Welding majors, introduces safety practices, basic tools and equipment, operating

procedures and applications of oxyacetylene cutting & welding, shielded metal arc welding (SMAW), gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), basic math and blueprint reading. (135 lab hours)

WELD 1150 - Introduction to SMAW

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750) (Pre- or corequisite: WELD 1050 or WELD 1050 or appropriate placement scores or department approval)

Covers topics in shielded metal-arc welding (SMAW) safety, basic fabrication and repair and customer relations.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 1192

WELD 1160 - Advanced SMAW

2 credit hour(s) (Prerequisite: WELD 1005 + WELD 1020 + WELD 1030 + WELD 1050 + WELD 1150)

Presents advanced instruction in shielded metal arc welding (SMAW) with a strong emphasis on safety, work ethics and shop procedures.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 1292

WELD 1170 - Qualifications for SMAW

2 credit hour(s) (Prerequisite: WELD 1025 + WELD 2001 + WELD 1160)

Covers simulated qualification procedures for shielded metal arc welding (SMAW), in all positions.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 1392

WELD 1250 - Introduction to GTAW and Fabrication Lab

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750) (Pre- or corequisites: WELD 1050 or appropriate placement scores 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. 15 hours additional instruction per term.
Note(s)

15 theory hours

45 lab hours

Preciously WELD 1592

WELD 1260 - Advanced GTAW and Fabrication

2 credit hour(s) (Prerequisite: WELD 1005 + WELD 1020 + WELD 1030 + WELD 1250 or department approval)

Covers advances aluminum and stainless steel gas tungsten arc welding (GTAW) and specialized fabrication/ repair. Customer problems, teamwork, problem solving and work ethics are stressed.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 2292

WELD 1270 - Qualifications for GTAW

2 credit hour(s) (Prerequisite: WELD 1025 + WELD 2001 + WELD 1260 or department approval)

Covers simulated qualification procedures for gas tungsten arc welding (GTAW) in all positions.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 2392

WELD 1350 - Introduction to GMAW and Fabrication

2 credit hour(s) (Prerequisite: ENG 0750 + MATH 0750 + RDG 0750) (Pre- or corequisites: WELD 1050 or WELD 1050 or appropriate placement scores or department approval)

Covers gas metal arc welding (GMAW) safety techniques. Fabrication and repairs are assigned. Teamwork is stressed. 15 hours additional instruction per term.
Note(s)

15 theory hours

45 lab hours

Preciously WELD 1492

WELD 1360 - Advanced GMAW and Fabrication

2 credit hour(s) (Prerequisite: WELD 1005 + WELD 1020 + WELD 1030 + WELD 1350 or department approval)

Focuses on instruction in advanced carbon steel gas metal arc welding (GMAW), fabrication/repair, problem solving and teamwork. 15 hours additional instruction per term.
Note(s)

15 thory hours

45 lab hours

Preciously WELD 1692

WELD 1370 - Qualifications fo GMAW

2 credit hour(s) (Pre- or corequisite: WELD 1025 + WELD 2001 + WELD 1360 or department approval)

Provides stimulated qualification procedures for gas metal arc welding (GMAW), in all positions. 15 hours additional instruction per term.
Note(s)

15 theory hours

45 lab hours

Preciously WELD 2092

WELD 1460 - Pipe Layout and Welding

2 credit hour(s) (Prerequisite: WELD 1005 + WELD 1020 + WELD 1030) (Pre- or corequisite: WELD 1160 + WELD 1260 + WELD 1360 or department approval)

Introduces basic pipe welding and layout, materials testing and industrial safety, as well as welding problems. 15 hours additional instruction per term.
Note(s)

15 theory hours

45 lab hours

Preciously WELD 2192

WELD 1480 - Qualifications for Pipe

2 credit hour(s) (Prerequisite: WELD 1460 + WELD 1570 or department approval)

Provides simulated qualification procedures for pipe welding and layout, materials testing and industrial safety, as well as welding problems.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 2692

WELD 1570 - Project and Fabrication

2 credit hour(s) (Prerequisite: WELD 1025 + WELD 2001) (Pre- or corequisite: WELD 1170 + WELD 1270 + WELD 1370 or department approval)

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.
Note(s)

15 theory hours

45 lab hours

15 hours additional instruction per term

Preciously WELD 2492

WELD 1580 - Advance Project and Fabrication Lab

2 credit hour(s) (Prerequisite: WELD 1570 or department approval)

An advanced 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. Students will create blueprints for assigned projects. Course also includes training in welding safety and customer relations. 15 hours additional instruction per term.
Note(s)

15 theory hours

45 lab hours

Preciously WELD 2792

WELD 2001 - Advanced Blueprint Reading

2 credit hour(s) (Prerequisite: WELD 1005 or department approval)

Covers pipe layout and development, structural print reading and design and layout considerations related fabrication, material and cost estimating.

WELD 2096-2996 - Special Topics

1-7 credit hour(s) (Prerequisite: division approval)

Presents various topics.
Note(s)
(all courses ending in 96 are special topics) See *Schedule of Classes*.

WELD 2097 - Independent Study

1-7 credit hour(s) (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

WELD 2999 - Welding Capstone Course

1 credit hour(s) (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies.

Womens Studies

WMST 1150 - Introduction to Women's Studies

3 credit hour(s) (Prerequisite: RDG 0950 or appropriate placement scores)

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.