2023-2024

Academic Catalog

SEMC
Southeast New Mexico College

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Catalog 2023-2024

Academic programs at Southeast New Mexico College are available to all students without regard to age, ancestry, color, disability, gender, national origin, race, religion, sexual orientation or veteran status. Any item in this catalog is subject to modification at any time by proper administrative procedure.

ABOUT THE CAMPUS

Welcome

Most students never read the catalog introduction from the president. You are one of the few—and I want you to know you have made a wise choice!

It isn't because I will say anything that will change your life. But what is in this catalog can. You will find the pathways to adventure available to you at Southeast New Mexico College. Whether healthcare or high technologies, trades or transfer programs, you can start at SENMC and go anywhere and do almost anything. It begins with you—and what is in the pages that follow. As you read about the courses you could take, don't be intimidated by the titles or the descriptions. We are here to help you with every step and every challenge. You will not find a place more welcoming and committed to your success.

Take a look at the services we offer and do not hesitate to contact any one of our devoted faculty and staff. If you can't reach someone, call or e-mail me. I will put you in touch with the best person to serve you.

Welcome to the Mountain Lion family!

Kevin
575.234.9211
kbeardmore@senmc.edu

Our Mission

The mission of SENMC is to provide educational programs, training, and services that best serve our diverse students, communities, and industry.

Our Vision

Building bridges to a better life through education.

Institutional Values

Southeast New Mexico College is committed to and demonstrates:

- **P**--Persistence
- **R**-- Resilience, respect, and resourcefulness
- **I**--Inclusion and integrity
- **D**--Diversity
- **E**--Excellence

Administration

President

Kevin Beardmore, Ed.D.

Board of Trustees

Ned Elkins, (District V) Chair

Tiffany Frintz, (District III) Board Secretary

Sarah J. Bowman, (District IV), Board Member

Mark Cage, (District I), Board Member

William Murrill, (District II) Board Member

Departments

Academics

Allied Health (https://www.senmc.edu/academic-departments/allied-health.html)
Business (https://www.senmc.edu/academic-departments/business.html)
Digital Media (https://www.senmc.edu/academic-departments/digital-media.html)
Education & Foreign Languages (https://www.senmc.edu/academic-departments/education-and-foreign-languages.html)
English, Communication, & Fine Arts (https://www.senmc.edu/academic-departments/english-communication-and-fine-arts.html)
Mathematics (https://www.senmc.edu/academic-departments/mathematics.html)
Nursing (https://www.senmc.edu/academic-departments/nursing.html)
Science & Engineering (https://www.senmc.edu/academic-departments/science-and-engineering.html)
Social Sciences (https://www.senmc.edu/academic-departments/social-sciences.html)
Vocational, Energy, and Manufacturing (https://www.senmc.edu/academic-departments/vocational-energy-and-manufacturing.html)

Campus

Adult Education (https://www.senmc.edu/adult-education/)
Business Office (https://www.senmc.edu/business-office/)
Community Education (https://www.senmc.edu/communityeducation/)
Facilities (https://www.senmc.edu/facilities/)
Grant Services (https://www.senmc.edu/hsi-grant-services/)
Health Clinic
Human Resources (https://www.senmc.edu/human-resources/)
Institutional Research (https://www.senmc.edu/about-us/institutional-research.html)
Marketing & PR Services
Workforce Development (https://www.senmc.edu/workforce/)

Student Services

Academic Advising (https://www.senmc.edu/advising/)
Admissions (https://www.senmc.edu/admissions/)
Bookstore (https://bookstore.senmc.edu/home/)
Dual-Credit (https://www.senmc.edu/dual-credit/)
Financial Aid (https://www.senmc.edu/financial-aid/)
Student Accessibility Services (https://www.senmc.edu/student-services/student-accessibility-services/)

Support Services

ICT Help Desk (https://www.senmc.edu/ict/)
Learning Assistance Center (Campus Tutoring) (https://senmc.libguides.com/LAC/)
Learning Technology Center (https://www.senmc.edu/ltc/)

Library (https://www.senmc.edu/library/)
Testing Center (https://www.senmc.edu/testing-center/)
Veteran (VA) Services (https://www.senmc.edu/financial-aid/veteran-services.html)

Inquiries about Southeast New Mexico College and requests for additional information are welcome.

Write

Office of Student Services
Southeast New Mexico College
1500 University Drive
Carlsbad, New Mexico 88220

Telephone

Phone: (575) 234-9200

Toll Free: 1 (888) 888-2199

Fax: (575) 885-4951

Website: senmc.edu

Personnel

Campus Executive Administrators

Beardmore, Kevin, President, Ed.D., University of Kentucky

Best, Mickey, Interim Vice President Academic Affairs, Ph.D., Texas Tech University

Garcia, Juanita, Vice President for Student Services, M.Ed., Eastern New Mexico University

Harris, Monty, Vice President Workforce Development and Community Engagement, D.C., Sherman College of Chiropractic

Volpi, Karla, Executive Vice President for Business and Finance, Ph.D., Grand Canyon University

Administrative Staff

- Anderson, Raven - Academic Success Coach/Student Accessibility Services, Student Services, Ed.D., Grand Canyon University
- Barela-Eubank, Corey – Manager, Systems Administration, M.B.A., New Mexico State University
- Bedingfield, Della - Director of the Small Business Development Center, B.S., Kaplan University
- Borkorm, Bright – Director of Institutional Analysis, Ed.D, Benedictine University
- Byers, Lori – Help Desk Rep., Intermediate Associate, Information Systems
- Campos, Diana – Director, Financial Aid; M.A., New Mexico State University
- Dewey, Amy - Registrar, M.S., Capella University
- Dodson, Andrea – Executive Assistant to the President, President's Office, M.B.A., University of the Southwest
- Dominguez, Erick - STEM Program Manager, HSI Grants Services, B.S., Autonomous University of Chihuahua
- Dominguez, Raymond - Title V Activity Director, HSI Grants Services, MBA, TecMilenio University

- Dunaway, Melissa – Director of the Learning Assistant Center, M.S.Ed., Jacksonville State University
- Espino, Freddy – Director of Web and Digital Strategies., B.I.C.T., New Mexico State University
- Espinoza, Rocio - HSI Project Director, HSI Grant Services, M.Ed., Ashford University
- Garcia, Teddi - Dual Credit Advisor, B.S., New Mexico State University
- Ghalichi, Narmin –Coordinator of Institutional Research, Ph.D., University of Minnesota
- Gonzales, Sierra – Human Resources Coordinator
- Gonzales, Steven - Director of Human Resources, M.A., Webster University
- Kelly-Bateman, Vivian - Library Specialist, Library, M.Ed., University of Georgia
- McCormack, Misty – Director of Adult Education, M.A., New Mexico State University
- McKinley, Jennah – Director of Workforce & Community Education, M.A., New Mexico State University
- Martinez, Syerra - Payroll Coordinator, Human Resources
- Miller, Frankie – Director of the Bookstore, M.A., New Mexico State University
- Morales, Ron Humberto – Title V Program Manager, Grant Services, M.B.A., New Mexico State University
- Moreno, Luz – Director of the Learning Technology Center, M.Ed., New Mexico State University
- Navarrete, Saul - Classroom Media Technologist, Learning Technology Center, A.S., New Mexico State University Carlsbad
- Orozco, Krista – Administrative Assistant, Special Executive, VPBF
- Rocha, Jonathan - Internship, Transfer & Career Specialist, HSI Grant Services, B.B.A., UNM Anderson School of Management
- Roper, Gary – Director of Facilities, Physical Plant
- Silva, Rebecca – Director of Finance, Business Office; M.B.A., New Mexico State University
- Soto, Sky – Director of Marketing & Publications, B.F.A., Western New Mexico University
- Theragood, Merdia – Associate Registrar, B.I.S, New Mexico State University
- Thompson, Karla – Director, Academic Advising, M.S., University of the Southwest

Full Time Faculty

- Abdaljalil, Talal – Assistant Professor, Industrial Maintenance; M.S., New Mexico State University
- Addington, April – Instructor of Mathematics, M.S., University of Southern Indiana
- Al-Nouman, Jamil – Professor, Engineering; Ph.D., New Mexico State University
- Aryal, Pradip – Professor, Mathematics; Ph.D., New Mexico State University
- Biebelle, Patricia – Professor, English; M.F.A., University of Oregon
- Buckholz, Mark – Emeritus Professor, English/Communication Arts; Ed.D., New Mexico State University, MFA, Yale University
- Clements, Alexis - Assistant Professor, Digital Media Technology; M.F.A., Academy of Art University
- Chappa, Eduardo – Professor, Mathematics & Developmental Mathematics, Ph.D., University of Washington

- Chavez, Kina - Instructor of Nursing, RN, BSN., Eastern New Mexico State University
- Daily, Kevin - Assistant Professor, Communications, M.A., Wayne State University (Detroit, Michigan)
- Fry, John – Assistant Professor, English & Reading, Ph.D., The University of Texas at Austin
- Girmus, Ronald – Professor, Biology; Ph.D., University of Arizona
- Goldsby, Charity - Instructor Surgical Technology, Allied Health, AOS, Career Technical College
- Hamedi, Jalal – Professor, Psychology/Sociology; Ed.D., Tennessee State University
- Hardin, Dianne – Professor/Director of Nursing; M.S.N., University of New Mexico
- Harris, Monty – Associate Professor, Anatomy & Physiology, Doctor of Chiropractic; Sherman College of Chiropractic
- Hartsock, Iris – College Assistant Professor, Allied Health; M.S.N./ED, RN, University of Phoenix
- Hayes, Robyn – Emeritus Professor, Chemistry; M.S., University of Nebraska- Lincoln
- Huang, Yiqun – Assistant Professor, Chemistry, Ph.D., Purdue University
- Johnson, Jessica – College Instructor Nursing, M.S.N., R.N., Eastern New Mexico University
- Kiemle, Scott – College Instructor, Digital Media, BFA, Eastern New Mexico University
- King, Chris – College Instructor Welding, A.A., New Mexico State University Carlsbad
- Kuh, Erin – Assistant Professor, Allied Health; M.B.A., R.D., Dominican University
- Lee, Chang – Professor, Spanish/Linguistics; Ph.D., University of California, Los Angeles (UCLA)
- Linney, Sheena - College Instructor Welding; A.A., New Mexico State University Carlsbad
- McIntosh, David - Assistant Professor, History and Anthropology, Ph.D., University of California, Santa Barbara
- Mourhat, Karima - Assistant Professor, Criminal Justice, Ph.D., Hassan I University
- Nieto, Arlene, College Instructor Nursing, B.S.N., R.N, University of Texas Arlington
- Quintana, David – College Instructor, Automotive Technology; B.E.E.D., New Mexico State University
- Packer, Debra – Emeritus Professor, Mathematics, M.A., Central Michigan University
- Rayroux, Audrie - College Instructor Nursing; B.S.N., Grand Canyon University
- Strahan, Jon – Associate Professor, Business; M.S., Arizona State University
- Titus, Pamela – Professor, Nursing; M.S.N., New Mexico State University
- Trautner, Robert - Fire Science & EMT Program Director
- Vacca, John – Professor, Psychology; Ph.D., Union Institute & University
- Villa, Samantha – Director/Associate Professor, Library; M.L.S., University of North Texas
- Wang, Mingyue – Assistant Professor, Early Childhood Education; New Mexico State University

- Warrior, Tori - Instructor of Nursing, M.S.N., Texas Tech University Health Science Center
- Wiedenmann, Richard – Professor, Biology; M.S., Baylor University
- Wilson, Jonathan - Assistant Professor, English, Ph.D., University of Texas at Arlington
- Zhao, Yaxi – Professor, Mathematics; Ph.D., University of Kentucky
- Zuniga, Deborah – College Instructor, Nursing; B.S.N., New Mexico State University
- Zuniga, Gina – Professor, Nursing; M.S.N. C. N. E., University of New Mexico

Classified Staff

- Acosta, William - Custodial Worker, Sr., Physical Plant
- Alam, Jaymee - Administrative Assistant, Workforce and Community Education
- Banks, Marty – Grant Services, Program Coordinator
- Blatsvich, Robert – Custodian Supervisor, Physical Plant
- Boyd, Carol - Testing Coordinator, Testing Center, B.A., University of Nebraska-Lincoln
- Cassels, Donald – Electrician, Physical Plant
- Castillo, Robert – Facilities Tech, Physical Plant
- Caughron, Joy – Administrative Assistant, Associate, SBDC
- Cisneros, Christopher - Custodial Worker, Sr., Physical Plant, A.A., New Mexico State University Carlsbad
- Cox-Tindol, Judith - Student Development & Activities Advisor, Student Services
- Dunaway, Marcus, Custodial Worker, Sr., Physical Plant
- Ellison, Antonio – Facilities Technician, Physical Plant
- Enriquez, Joseph - Custodial Worker, Sr., Physical Plant
- Fierro, Juanita - Library Assistant, Library, A.A., New Mexico State University Carlsbad
- Galindo, Rebeca - Title V Program Coordinator, A.A., New Mexico State University Carlsbad
- Garcia, Annette – Financial Aid Advisor, Financial Aid, A.A., New Mexico State University Carlsbad
- Gonzalez, Tamara – Business Office Specialist, Business Office, A.A., New Mexico State University Carlsbad
- Helmer, Dean - Technology Support Tech, Information Systems, A.A., New Mexico State University Carlsbad
- Herring, Ellen - Data Records Coordinator, Student Services
- Juarez-Ortega, Betty – Data Records Coordinator, Student Services
- Kelly-Bateman, Savannah - Administrative Assistant, Associate, Nursing, A.A., New Mexico State University Carlsbad
- Lactaoen, Robert – Custodial Worker, Sr., Physical Plant
- Marquez, Blanca - Custodial Worker, Sr., Physical Plant
- Martinez, Rosalinda – Library Specialist, Library, A.A., New Mexico State University
- Mathis, Mandy – Administrative Assistant, Associate, Business Office, A.A., New Mexico State University
- Montez, Armando – Administrative Assistant, Intermediate, Learning Assistance Center
- Moralez, Isaac – PC Support, Sr., Information Systems
- Myint, Maung – Math Tutor, Learning Assistance Center, Ph.D., New Mexico State University

- Navarrete, Raul - Safety/Training Specialist, Workforce Development, OSHA/MSHA Certified, B.A., Northwood University
- Nichols, Jeannie – Student Program Coordinator, Office of Student Financial Aid, VA & Scholarship Services, B.A., New Mexico State University
- Nguyen, Alena – Accounts Payable Clerk, Business Office
- Orozco, Josie – Custodial Worker Sr., Physical Plant
- Quintana, Maria – Community Education Coordinator, A.A., New Mexico State University Carlsbad
- Ramirez, Jade – Dual Credit Enrollment Manager, M.A., New Mexico State University
- Reyes, Lucy - Administrative Assistant, Human Resources
- Roper, Susan – Administrative Assistant, Sr., Business Office, B.B.A., Texas State University
- Ryan, Lisa - Restricted Funds Specialist, Business Office, A.A., New Mexico State University Carlsbad
- Saldana, Evelyn – Administrative Assistant, Associate, Financial Aid Office
- Soto, Marina, Program Coordinator, Adult Education
- Trujillo, Antonieta – Inventory Control Clerk, Physical Plant
- Williams, Darlene – Custodial Worker Sr., Physical Plant
- Wolf, Brandy - Accounts Receivable Clerk, Business Office, A.A.S., New Mexico State University Carlsbad

History of Southeast New Mexico College

Southeast New Mexico College "SENMC" was established in 1950 as the State's first Community College and was named the Carlsbad Instructional Center. Ten years later, the Center was renamed as a branch campus of New Mexico State University System. In 1980, the campus was relocated to a new building, which was expanded with an additional wing of classrooms in 1987. In 1996, a computer facility for occupational programs was added to the existing facilities. The newest building, the Allied Health Building, was completed in 2011 to house programs in Nursing and Allied Health.

The College celebrated its 70th year record of accomplishments on October 2, 2020. Throughout its existence, the College has helped shape lives and in turn, shape the community of Carlsbad. The College appreciate the continued support of Carlsbad and Eddy County community. Effective July 1, 2021, SENMC started another phase of its rich history by transitioning from NMSU-Carlsbad to Southeast New Mexico College as an independent Community College.

Accreditation

SENMC is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools and in 2018 the college was transitioned from the Academic Quality Improvement Program (AQIP) to the Open Pathway model of accreditation. The associate degree program in nursing offered by SENMC is accredited fully by the Accreditation Commission for Education in Nursing. Both the certificate and associate degree programs in nursing are approved by the State of New Mexico Board of Nursing. All associate degree programs offered by SENMC are reviewed and approved by the New Mexico Higher Education Department.

Professional Associations

The college holds membership in the New Mexico Independent College Association, the American Association of Community Colleges and the American Association of Higher Education. In addition, courses offered by SENMC have been approved for enrollment by those veterans and dependents that qualify for higher education benefits under the various sections of the Veterans' Education Assistance Act.

SENMC Graduation and Retention Rates

These rates may be found on the SENMC Institutional Research (https://senmc.edu/about-us/institutional-research.html) website.

Why Students Choose SENMC

Most students choose to attend SENMC because the campus is close to their homes. In contrast to attendance at larger institutions, students attending SENMC receive more individual attention from faculty and staff to encourage their academic success, and they can earn credit in lower-division courses—equivalent to those offered by other institutions—at an affordable tuition. Students also have the opportunity to complete their high school instruction and their college education at an associate level on the same campus. The college offers classes at times convenient to full-time as well as part-time students. Academic programs and related services are expanding regularly to meet the demands of the changing student body and local community. Students have access to a multitude of valuable services offered on-campus to meet their educational and career goals. Entertainment and cultural events are sponsored regularly. Students are equipped with the knowledge, competencies and skills to enter the work force immediately or to transfer to baccalaureate-granting institutions anywhere in the country.

Become a Part of the College

SENMC is the principal public institution for associate-level study in Eddy County. Our foremost purpose is to provide quality academic programs, facilities, and resources to accommodate the needs of our richly diverse student body. Here students have the opportunity to learn from a dedicated and diverse group of faculty and college instructors who regard excellence in teaching as their principal goal. The campus' low student-to-faculty ratio encourages the individual attention and personalized instruction often unavailable at larger institutions. The low tuition associated with enrollment at SENMC, compared to costs to attend larger campuses, often permits students to economize the cost of higher education.

Students who need to complete their high-school equivalency requirements can attend special courses at SENMC through the Adult Education (A E) and General Educational Development (GED) preparation programs. Students who are still enrolled in high school can take college courses at SENMC through special articulation programs. Students who are working either full-time or part-time can still attend SENMC because classes are offered fourteen hours per day, Monday through Friday, and additional classes are offered on Saturdays as well as online. Students may also pursue their postsecondary education and job training through special courses contracted with industries and businesses in the regions.

A variety of resources and services are made available to students who attend SENMC. These include the assessment of academic preparation for college-level instruction, placement in courses intended to address academic weaknesses, tutorial assistance, financial assistance, career guidance and wellness programs.

Most academic credit courses offered at SENMC duplicate those offered at other institutions and may be used for the total credit requirements for baccalaureate graduation. Academic programs at SENMC are expanding continually in response to the needs of our students and in reflection of the changing world in which our graduates will live, work, and contribute to global welfare. The campus' excellent certificate and associate programs and faculty are supported by state-of-the-art technology, including computer-assisted instruction in specific liberal arts and vocational-technical courses, as well as access to the Internet. Students benefit by gaining access to these technologies as well as to the campus library, which serves as a hub to connect students to global and local resources in digital and print formats.

SENMC also provides excellent fine arts facilities for instruction and accommodates several entertainment and cultural events annually. Drama students enroll at SENMC participate in Carlsbad's community theatre. Students who have recently moved to the region will find numerous recreational activities and facilities associated with the Pecos River and park system. In addition, Carlsbad hosts a number of art galleries, the Carlsbad Museum and Art Center and the Living Desert Zoo and Gardens State Park. The city has a regional airport and is located ten miles from the entrance to the *world's eighth wonder*, the Carlsbad Caverns National Park. Residents are also within driving distance of a number of other national parks and sightseeing areas, which are accessible nearly all year due to the region's mild and pleasant winters and its warm and dry summers.

Placement of our graduates in meaningful careers is important to the economic stability of the region. Southeast New Mexico College offers opportunities for students to engage in cooperative education and internship experiences; it also provides job information and related services to students who seek help defining and choosing their careers.

STUDENTS REGULATIONS

Admissions

Southeast New Mexico College (SENMC) is an open admissions postsecondary institution. Prospective students who have graduated from an accredited high school, have earned a high school equivalency, are transfer or visiting students, or are dual enrolled in high school and college or pursing a high school equivalency may apply. Prospective students who are 18 or older and did not graduate from high school or the equivalent may be admitted as non-degree until ability to benefit has been met. Admission to the college does not guarantee admission or enrollment into a particular course or program of study.

A student may be accepted for undergraduate admission to SENMC as a:

- A degree-seeking student (must provide official transcripts).
  - Official transcripts must come directly from the institution where you obtained your diploma and/or completed college courses. If the document is delivered to us from anyone other than the institution, it is not considered an official transcript.
  - Unofficial transcripts can be accepted as a Tentative Admit. If official transcripts are not received, students will be admitted as "Tentative Conditional Admit" to allow additional time for transcripts to be received. If transcripts are not received by the end of the first semester, the student will not be able to register for the next semester until official transcripts are received.
- A non-degree student under the policies and conditions as set forth in this section.

How to Apply

Prospective students are encouraged to apply for admission to SENMC by visiting Admissions (https://senmc.edu/admissions/) or contact the admissions office to request an application. Students are required to submit an application for admission prior to registration.

New Student Orientation

All new, first-time degree seeking students and transfer students with fewer than 30 credits are required to complete New Student Orientation prior to advising and registration. Readmit students and transfer students with more than 30 credits are invited to attend if they wish. For information, please contact Admissions at (575) 234-9238.

First Time Student

Qualifications for undergraduate admission to SENMC include the following:

- Complete the undergraduate admission application available online at https://senmc.edu/admissions/
- Submit Official Transcript(s)
  - A student who has graduated from any U.S. high school or who earned a high school equivalency that is accredited by a regional accrediting association or approved by a state department of education or state universities will be required to send an official high school transcript, GED, or state approved high school equivalency to the Admissions Office.
  - A student who has attended other colleges or universities must have official transcripts forwarded directly to the Admissions Office by the Registrar of each institution and must be eligible to return to the college or university last attended.
  - If SENMC has reason to believe that the high school diploma is not valid, the institution may
    - check with the high school to confirm the validity of the student's diploma; and
    - confirm with the relevant department or agency in the state in which the secondary school is located that the secondary school is recognized as a provider of secondary school education.

Note: Unofficial transcripts can be accepted as a Tentative Admit. If official transcripts are not received, students will be admitted as "Tentative Conditional Admit" to allow additional time for transcripts to be received. If official transcripts are not received by the date set for conditional enrollment, the student will not be able to register for the next semester.

Non-degree Seeking Student

Non-degree admission is designed to meet the needs of mature, part-time students who do not wish to pursue a degree, or who are transient or visiting students. Courses taken in this status may not be used to meet college admission requirements. Students who wish to take a course without a graded credit may choose to audit courses. Students on non-degree status are ineligible to receive financial aid or student employment; nor are they eligible to participate in student government or intercollegiate athletics. They are also ineligible to receive benefits from any veteran's program.

Transcripts from previous institutions, high school, and/or results of college entrance exams may be required to assure readiness for college-level courses. Non-degree students are subject to the same university regulations as regular students.

Changing from Non-Degree Status

A non-degree student in good academic standing at SENMC must submit a formal admissions application for a change of status from non-degree to degree seeking. Requirements to regular admission must be met. Non-degree students may not transfer more than 30 credits from this status to any undergraduate degree program with the exception of students participating in a high school concurrent enrollment program.

Returning Re-Admit

Former students who have been out of school for more than two consecutive terms are required to make a formal application for readmission. Applications should be submitted to the Admissions Office at least 30 days before the opening of the semester or summer session for which the student plans to enroll.

A student who has attended other institutions during an absence must have official transcripts forwarded directly to the Admissions Office by the Registrar of each institution and must be eligible to return to the college or university last attended. Transcripts must be received prior

to the date or registration. Admission status at the time of readmission will normally be determined by previous SENMC academic standing. However, academic performance at other institutions attended during the applicant's absence from SENMC may be taken into consideration in determining the student's admission status.

How to Apply to the Nursing Program
Entrance and enrollments to the nursing programs are limited. Special applications are required and may be obtained from the offices of the Nursing Program or visiting Nursing (https://senmc.edu/academic-departments/nursing.html). In addition to meeting regular undergraduate admissions requirements, students must be selected into these programs. Nursing students are also required to take the HESI A2 and successfully complete a certified nursing assistant program to be eligible for entry into the program. Nursing majors must earn satisfactory grades.

Transfer Students
Transfer students from other colleges or universities may be accepted if their cumulative GPA is at least 2.0 and they are eligible to return to the college or university they last attended. Students who have a GPA less than a 2.0 may be admitted on probation. Students who transfer less than 30 credit hours must meet the first-time freshman admission requirement. Transfer students follow the same procedures as those outlined under "How to Apply." Official transcripts from all colleges and/or universities previously attended must be sent directly to the SENMC Admissions Office by the registrar of each college or educational institution.

Coursework from non-accredited institutions may be evaluated by the Office of the Registrar. The student should initiate the request for evaluation of this coursework with the SENMC Office of the Registrar. If approved, coursework will be applied toward certificate or associate degree completion.

A student who conceals the fact that (s)he has attended another college or university and who has not had transcripts submitted by each institution previously attended—whether or not credit was earned—may be subject to immediate suspension.

Opportunities for High School Students
How to Apply as a Dual Credit High School Student
The dual credit program is designed to give high school students an opportunity to earn both high school and college credit through SENMC. Under the Dual Credit Master Agreement between SENMC and the local school districts, students enrolled in approved dual credit courses are eligible to have the full cost of tuition waived. Dual Credit participants do not have to pay for tuition or textbooks; however, students are responsible for any course-specific fees, such as lab fees. They may take a college level, career-technical course that will simultaneously count toward high school graduation and a certificate or associate degree.

To qualify for dual credit, students must be enrolled at Artesia, Carlsbad, Jefferson Montessori Academy or Loving High School at least half time. Students must have a minimum high school GPA of a 2.0. Sophomores and students with a lower GPA may be considered on a case-by-case basis.

To enroll students must submit a dual credit packet during the college registration period that consists of an SENMC admission application (required only for students who have not attended in a semester or more), dual credit form with course request and all necessary signatures, and submit a high school transcript.

For additional information on dual credit please contact the dual credit office at Dual Credit (https://senmc.edu/dual-credit/) or (575) 234-9276.

Early College High School
The Early College High School initiative is designed to allow students to simultaneously earn a high school diploma while earning up to two years (60 hours) of college credit, which might result in a college certificate or associate degree by the time they graduate from high school. The facilities usually located on a college or university campus makes higher education more accessible and also helps students become more comfortable in a higher education environment. For further information on the admission requirements for early college high school contact the Carlsbad Early College High School directly (575) 234-9415.

Early Admission
The early admit program gives home school and students enrolled in a GED program the opportunity to take college courses that are non-approved dual credit courses. Students must meet the same eligibility requirements as dual credit students. However, students will be required to pay course specific fees and purchase the book for the class. Students who are at or below freshman standing in the high school may not take academic courses at SENMC. In addition, for the home school student the home school educator must submit a signed transcript or document that lists the courses completed and grades earned by the student as well as indicate the expected date the student will graduate from the home school program.

Home-School Student
Students enrolled in a home school program may be accepted to SENMC if they meet the requirements for regular or provisional admission as previously stated. In addition, the home school educator must submit a signed transcript or document that lists the courses completed and grades earned by the student as well as indicate the date the student completed or graduated from the home school program. Home school students who are New Mexico residents and wish to participate in the Lottery Success Scholarship program are required to submit official New Mexico GED test results in English.

Admission Application Materials
All documents submitted as part of the admission process become property of SENMC and will not be returned to the student.

Admissions Office Contact Information
For more information, contact: admissions@senmc.edu or (575) 234-9221.

Admissions Office, Room 111
Southeast New Mexico College
1500 University Drive
Carlsbad, NM 88220

Financial Aid & Scholarship Services
SENMC Financial Aid Office
Southeast New Mexico College Financial Aid Office administers a broad spectrum of grants, loans, scholarships and work-study funding in an attempt to meet the financial need of SENMC students.

SENMC's Financial Aid Office awards financial aid to students according to their individual calculated need. Parents of students are expected to contribute to their child's education according to their ability, taking into account their income, assets, number of dependents and other relevant information. Students themselves are expected to contribute from their

own assets and earnings, including appropriate borrowing against future income. All information provided to the SENMC Financial Aid Office is regarded as confidential in accordance with Family Educational Rights and Privacy Act (FERPA) and Gramm-Leach-Bliley Act (GLBA).

Students applying for financial aid must complete a Free Application for Federal Student Aid (FAFSA) at https://studentaid.gov/h/apply-for-aid/fafsa (https://studentaid.gov/h/apply-for-aid/fafsa/) every year. The information reported on FAFSA is designed to determine, in accordance with state and federal guidelines, what the student or family is expected to contribute to the student's education. Among the factors that determine the family's Expected Family Contribution (EFC) are:

1. Annual adjusted gross income as reported to the Internal Revenue Service.
2. Savings, stocks, and/or bonds.
3. Other assets in the form of a business, farm or real estate.
4. Non-taxable income and benefits; and
5. Student's prior-prior year income and assets.

Scholarships and Other Aid

Many students finance part of their education with scholarships, which may be awarded for academic achievement, special skills, talent and/or based on the applicants calculated financial need.

SENMC has a variety of scholarships that are offered to incoming freshman, transfer, and continuing students. State, institutional and private scholarships may also be available, but amounts, deadlines and eligibility requirements vary. For more information, contact the SENMC Financial Aid Office at 575-234-9226 or visit the SENMC scholarship website at https://senmc.edu/financial-aid/scholarships.html.

To be considered for most scholarships at SENMC for which you may be eligible you are required to apply online through https://senmc.edu/documents/scholarships/senmc-scholarship-application.pdf.

SENMC Financial Aid Office Contact Information

Financial Aid Office, Room 107
1500 University Drive
Carlsbad, NM, 88220
Phone: (575) 234-9225
financialaid@senmc.edu

General Eligibility Requirements

To receive financial aid you must be enrolled as a degree seeking student in an eligible degree or certificate program and demonstrate the following:

THAT YOU ARE QUALIFIED TO OBTAIN AN EDUCATION BY:
- Having a high school diploma or a recognized equivalent such as a General Educational Development (GED) certificate or
- Completing a high school education in a home-school setting approved under state law.

IF YOU WERE ENROLLED IN COLLEGE IN AN ELIGIBLE PROGRAM OR CAREER SCHOOL PRIOR TO JULY 2, 2012, YOU MAY SHOW YOU ARE QUALIFIED TO OBTAIN A HIGHER EDUCATION BY:
- Having passed an approved ability-to-benefit test (if you don't have a diploma or GED, a college can administer a test to determine whether you can benefit from the education offered at that school);

- Completing six credit hours or equivalent course work toward a degree or certificate (you may not receive aid while earning the six credit hours)
- Be enrolled or accepted for enrollment as a regular student working toward a degree or certificate in an eligible program.

TO BE ELIGIBLE FOR FINANCIAL AID, YOU MUST ALSO:
- Be a U.S. citizen or eligible non-citizen (state funded scholarships are available to undocumented students).
- Have a valid Social Security number or Alien registration number as shown on a Government-issued naturalization certificate.
- Be in good academic standing and meeting satisfactory academic progress (SAP).
- Sign a statement on the FAFSA certifying that you will use Federal student aid only for educational purposes.
- Sign a statement on the FAFSA certifying that you are not in default on a federal student loan and that you do not owe money back on a federal student grant.
- Register with the Selective Service, if required.

Financial Aid Awards

All financial aid awards are based on information provided by the student and/or parents, availability of funds and eligibility requirements. Any award may be revised based on changes in enrollment, cost of attendance, application for graduation, family contribution or failure to meet satisfactory academic progress. Withdrawals (Drops) or reductions in enrollment may affect an award or any future awards. Financial aid will not pay for audited courses or some repeats.

GRANTS
The Federal Pell Grant is a federal grant available to undergraduate students with documented financial need. If the Pell Grant is insufficient to pay educational expenses, the student may be eligible to receive other types of aid, including a Federal Supplemental Educational Opportunity Grant (SEOG) or Leveraging Education Assistance Partnership Program Grant (LEAP), and/or other miscellaneous grants. These grants are awarded to undergraduate students who demonstrate exceptional financial need. Generally, grants do not have to be repaid. For more information, contact the SENMC Financial Aid Office or visit the college's financial aid website at: https://senmc.edu/financial-aid/.

FEDERAL DIRECT LOANS
Students must complete and submit a FAFSA application every year if they want to be considered for a Federal Direct Loan (or student loan). There are two types of loans that are available to students known as the Federal Subsidized Direct Loan and the Federal Direct Unsubsidized Loan.

FEDERAL DIRECT SUBSIDIZED LOAN
The Federal Direct Subsidized Loan is a loan program for eligible undergraduate students who demonstrate financial need. The U.S. Department of Education pays the interest on a Direct Subsidized Loan while the student is enrolled in school at least half-time.

FEDERAL DIRECT UNSUBSIDIZED LOAN
The Federal Direct Unsubsidized Loan is a loan program for eligible undergraduate students that do not demonstrate financial need. Unlike other federal loans, interest accrues while the student is attending school.

FEDERAL DIRECT LOAN REQUIREMENTS

Students receiving a subsidized or unsubsidized Federal Direct Loan will be required to complete an online entrance counseling session and a master promissory note. Students will also be required to complete an annual Student Loan Acknowledgment before loan funds can be issued to the student.

An exit counseling requirement must also be met once a student loan recipient graduates or withdraws (drops) from the school. Failure to complete this requirement may result in a delay in receiving a transcript or diploma.

Repayment of a Federal Direct Loan begins six months after graduation or six months after enrollment drops below 6 credits or less than time for undergraduate students.

Student loan requirement can be met by going to https://studentaid.gov/understand-aid/types/loans/subsidized-unsubsidized (https://studentaid.gov/understand-aid/types/loans/subsidized-unsubsidized/). *Please note that electronic notices will be sent to the school upon completion of each requirement.*

WORK-STUDY PROGRAMS

The Federal and State Work-Study Programs provide funds for part-time employment opportunities for eligible students and allows students the ability to work no more than 20 hours per week earning at least a minimum wage. It is possible that you may earn more depending on the type of work you do and the skills required for the position. Work-study awards are based on early FAFSA submission, financial need as determined by FAFSA, and available funding. Students may contact the Financial Aid Office if they have questions or need additional information by contacting us at 575-234-9225 or email financialaid@senmc.edu.

Satisfactory Academic Progress

Federal regulations require all students receiving financial aid to meet Satisfactory Academic Progress in order to maintain eligibility for financial aid. The Financial Aid Office will review all financial aid recipients three times a year (end of Fall term, end of Spring term, and end of Summer term). The review will measure both qualitative (GPA) and quantitative (completion rate) standards. Financial aid awards include state and federal grants, federal direct loans, state and federal workstudy.

When evaluating Satisfactory Academic Progress (SAP), all terms of enrollment will be evaluated regardless of whether the student received financial aid during those terms. For transfer students, only those credits that are transferred to Southeast New Mexico College and counted towards a degree program will be counted toward the Timeframe and when calculating Completion Rate.

All the satisfactory academic progress standards for students applying for and receiving financial aid, excluding academic suspensions, are established and monitored by the Financial Aid Office. Academic suspension standards are established and monitored by the Registrar.

NOTES OF IMPORTANCE:

- Federal regulations do not allow rounding of financial aid SAP standards.
- The financial aid SAP standards are not the same as SENMC's Academic Suspension Standards.
- Failing grades, withdrawals and incompletes will reduce a student's completion ratio as well as counting against maximum hours.

- Repeated courses count as attempted hours each time a student registers for them. Also, each course is counted in the student's financial aid GPA requirement.
- Academic renewal hours count toward all components of the SAP policy.
- Students who are suspended academically or choose not to attend because of SAP Suspension will not be automatically eligible for financial aid upon their return. Absence does not restore eligibility for financial aid. It remains the responsibility of the student to be knowledgeable of their SAP standard when returning to school after dismissal or choosing not to return because of SAP Suspension.
- Grade changes require students to submit a written request to have SAP recalculated after confirmation has been received that grade change has been posted to academic history.
- Summer Term Courses – all hours attempted and completed in the summer term are treated as any other semester hours in determining SAP status. SAP will be checked following the summer term as well.
- Audit Courses – students are not eligible to receive financial aid for audit courses. Audited courses are not included in hours attempted or earned for SAP determination.
- Financial aid will not be provided for certain courses taken by audit, credit hours earned by placement tests (CR), and Continuing Education (CE) courses.

Elements of Financial Aid Satisfactory Academic Progress:

GRADE POINT AVERAGE (GPA) REQUIREMENT (QUALITATIVE)

- Students must maintain a 2.0 cumulative GPA or greater on all hours attempted at SENMC.

COMPLETION RATE REQUIREMENT (QUANTITATIVE): *PACE OF PROGRESSION TO ENSURE COMPLETION WITHIN THE MAXIMUM TIME FRAME.*

- Students must complete 70% of all hours attempted. Grades of A's, B's, C's and D's will count as passed credits.
- All students are required to pass and complete 70% of all classes attempted. (Student will be ineligible for financial aid until completion rate is 70% or greater or an appeal for financial aid has been approved. Grades of I, RR, F, W, and U will be considered hours attempted but not completed.)

MAXIMUM TIME FRAME- PACE OF PROGRESSION

- Students receiving financial aid must complete their program of study within a reasonable time frame. The maximum time frame is 150% of the published length of the academic program or certificate (transfer credit hours counted towards degree program will be included). Limited developmental coursework will not be counted in the maximum time frame.
- Example: Associate of Arts = 60 hours x 150% = 90 hours.
  - 90 credit hours is the maximum number of hours allowed by financial aid.

Consequences of not Meeting Satisfactory Academic Progress (SAP):

Failure to meet one or more of the established financial aid standards of Satisfactory Academic Progress will make a student ineligible for financial aid. Students who have their financial aid revoked due to the failure to meet the SAP standards will remain ineligible until such time that they are able to meet the cumulative financial aid SAP standards. Those students will be responsible for payment of their own tuition and

fees. In the following provisions, "warning" , "suspension" or " probation" means financial aid warning, suspension, or probation not academic warning, suspension, or probation.

1. <u>Financial Aid Warning</u> – A status assigned to a student who fails to make satisfactory academic progress at a school that evaluates academic progress at the end of each payment period and/or term, and chooses to allow students who fail its progress standards to continue to receive aid. If the student has not returned to satisfactory standing after this additional semester, he or she will be suspended from further financial assistance until the satisfactory progress standards are met.
   a. NOTE – Because there are multiple components included in SAP, it is possible for a student to be placed in a warning status multiple times, for the same or different reason. Students, however, *cannot* be in a warning status for consecutive terms.

2. <u>Financial Aid Suspension</u> – If, after being placed on financial aid warning status, a student fails to meet the SAP standards of a cumulative 2.0 GPA and 70% completion rate, he or she will be placed on Financial Aid Suspension and will immediately lose financial aid eligibility.

3. <u>Financial Aid Probation (W-STIPS)</u> – When a student fails to make SAP and who has successfully appealed and has had eligibility for financial aid reinstated with an academic plan.

4. <u>Maximum Time Frame Suspension</u> (Pace of Progression) – Students must attain their degree on or before 150% of the published credits needed for a certificate or an associate degree.

If a student fails to meet the Maximum Time Frame standards, they will be placed on Maximum Time Frame Suspension and will immediately lose financial aid eligibility.

COMPLETE DEGREE OR CHANGE OF MAJOR
Credit hours obtained in a completed degree (i.e., a certificate, associates, etc.) will affect a student's maximum timeframe. Students who change majors more than once will also have the attempted credit hours from the previous major count against the maximum time frame.

Appeals
Students that fall below the satisfactory academic progress requirements have the right to appeal their ineligibility for Financial Aid. All appeals are reviewed for extenuating circumstances by the Financial Aid Appeals Committee and/or Financial Aid Advisor.

Financial Aid appeals must contain the following documentation:

1. The student must complete the Appeal for Financial Aid and/or Scholarships form, describing in detail, all extenuating circumstance(s) that prevented the student from meeting the Financial Aid Satisfactory Academic requirements for the most recent semester. If the student's academic transcript indicates that the student had more than one difficult semester, the student must address the circumstance(s) for each semester.

2. The student must provide information about why he/she failed to make SAP, and what has changed in the student's situation that would allow him/her to demonstrate satisfactory academic progress at the next evaluation.

3. Students should attach any documentation that is relevant to their circumstances, including supporting letters from counselors, doctors, ministers, and/or other appropriate third parties. For example, if the student had an illness

that prevented them from attending classes, the student should provide a doctor's note or medical billing statement as verification of illness.

4. The FA Appeals Committee/FA Advisor will act on the appeal in a timely manner, and if approved, financial aid eligibility may be reinstated for one additional semester after which the student must return to satisfactory academic standing. The Financial Aid Appeals Committee/FA Advisor may also require an academic plan that must be followed if returning to good standing is not possible in one semester's time. If students who have previously been placed on suspension subsequently fail to meet either of the two standards, future eligibility will be immediately suspended. The student may also appeal this suspension. If mitigating circumstances do not exist, the student may secure alternative funding until the satisfactory academic requirements (see above) have once again been met.

5. Students exceeding the maximum timeframe rule and are pursuing a subsequent degree will need to explain in detail how the subsequent degree will benefit the students career and any mitigating circumstances surrounding their intent to pursue a subsequent degree.

Students are encouraged to access the applicable forms at senmc.edu or in person at the Financial Aid Office. Appeals may be submitted through their mySENMC account. Forms may also be submitted by email or in person to the Financial Aid Office.

All appeals must be submitted to the Financial Aid Office by the deadline date which is two weeks after the semester's census date of the student's enrollment period. Appeals submitted after this deadline will be returned to the student.

Once a decision has been made on the appeal and the documentation provided, the student is to be notified of the committee's/FA Advisor decision via SENMC email. If a student has a balance with Accounts Receivable, they should make payment arrangements while waiting on a decision, in case of a denial. **Decisions rendered by the Financial Aid Appeals Committee/FA Advisor are final.**

ACADEMIC PLAN AGREEMENT
Students will be required to visit with their Financial Aid Advisor in order to obtain their personalized Academic Plan Agreement. Failure to meet the terms and conditions of the academic plan will result in suspension from future Financial Aid eligibility.

ACADEMIC PLAN STATUS/PROBATION (W-STIPS)
Students who have had an appeal approved will be placed on an Academic Plan. The student will be considered for financial aid during the semester for which the student has applied and is otherwise eligible.

Students who are able to meet the minimum requirements of SAP within one term will receive an email listing the requirements of their Academic Plan Agreement. Students who need 2 or more terms to meet the minimum requirements of SAP will be required to meet with a FA Advisor and sign a copy of the Academic Plan Agreement.

The Academic Plan Agreement will be reevaluated by the Financial Aid Advisor at the end of each semester. Students may regain eligibility to receive financial aid for the next semester of enrollment by either:

1. Completing the semester with grades that bring the student into compliance with financial aid policies; OR

2. Completing the specific requirements of the Academic Plan Agreement. If the academic plan is required for more than one semester, the terms must be met for each semester of enrollment until the student has returned to the minimum standards as defined within the SENMC's SAP policy.

   If the student again fails to meet the cumulative satisfactory progress standards at the end of one semester, they will be placed on Financial Aid Suspension.

Timeframe Requirements – Maximum Timeframe and Second Degree Seeking

MAXIMUM TIME FRAME (PACE OF PROGRESSION)

Students, who have exceeded the maximum timeframe for their declared program of study, must submit the Appeal for Financial Aid and/or Scholarships Form. This includes students returning to SENMC for a second or subsequent degree and are in violation of the Maximum Time Frame standard. Appeals need to be submitted to the Office of Financial Aid.

Students whose degree program requires more than the allowable credit hours within their grade level can submit a copy of their Degree Audit for review.   This will not be counted as an Appeal submission.

   Scenario: Tim is a Nursing student who has earned 91 attempted credit hours and per his degree audit, the program requires 70 credit hours. Based on the Time Frame calculation, Tim is still within his allowable Time Frame for his degree program making him eligible for Title IV funding.

   His SAP status would be updated from suspension to good and a note needs to be made in the system: 70 (150%) = 105 attempted credit hours.

Transfer students who have transferred from outside institutions and have exceed the Maximum Time Frame standard must submit a copy of their Degree Audit in order to ensure that only transfer credit hours counted towards their program will be counted within their allowable Time Frame. This will not be counted as an Appeal submission.

   Scenario: Samantha transferred to SENMC from an outside institution and 60 transfer credit hours were recorded on her academic record. She has also earned 50 attempted credit hours at SENMC, calculating her Time Frame at 110 attempted credit hours. Based on her Degree Audit, only 30 transfer credit hours are actually being counted towards her degree program, calculating her true attempted credit hours at 80 credit hours and making her eligible for Title IV funding.

   Her SAP status would be updated from suspension to good and a note needs to be made in the system: 30 Transfer credit hours that apply to degree + 50 attempted credit hours = 80 total attempted credit hours.

Students who have changed their degree program only once within their grade level are eligible to have their Time Frame reset and receive financial aid for the remaining courses left to complete degree program.   A copy of the Degree Audit must be submitted along with a letter from their academic advisor listing the remaining courses needed to complete the program.

   Scenario: Jacob was first admitted to SENMC as an Associate of Arts Major, but then in his sophomore year decided that he wanted to become a teacher and changed his degree program to Education.

This has caused him to exceed his allowable Time Frame for his grade level due to the extra program requirements needed to become a teacher. The Financial Advisor has received a copy of the Degree Audit and letter from academic advisor listing the remaining courses the student has left to complete degree.

Student's SAP status would be updated from suspension to warning with stipulations and a note needs to be made. Student would also need to sign an academic plan, because the FA Advisor will need to track the student's courses each term and the student would need to complete each term with no W's, I's, F's, U's, and RR's.

Credit remedial courses, up to 30 credits, may be deducted from the total number of credits attempted when calculating timeframe since they do not count as a credit toward a degree; but may be required and taken within an eligible program.

An academic plan will be used for maximum time frame appeals that are approved for extenuating circumstances; this also includes second degree seeking students.

Examples of time frame maximums for most programs are listed below:

1. Certificate
   a. 36 Attempted Credits

2. Associate Degree
   a. 90 Attempted Credits

SECOND DEGREE STUDENTS

Students who have completed a pace of progression and have earned an Associate's Degree and wish to attempt a second degree at the same level, e.g., two associate degrees, will need to submit an appeal if the student has exceeded the maximum time frame standard within their initial degree. Within the appeal, the student will need to provide what extenuating circumstances are present and why they need to pursue the second degree. The student will also need to provide examples of how the second degree will benefit their career.

Students who are submitting an appeal will also need to submit a form with a signed statement for timeframe from their Academic Advisor listing the required courses remaining to complete their degree. The Academic Advisor must state the number of credit hours required for the degree and how many credits are remaining to complete the degree. The Financial Aid Committee/FA Advisor will review the form and determine the total number of maximum allowable attempted credits hours for the student's second degree program.

- Second Degree seeking students will need to maintain a 2.0 cumulative GPA and 70% completion rate.
- If the student's registered courses do not match the information listed on the document, they will be ineligible to receive financial aid.

Adjusted Credit Option

Students granted the Adjusted Credit Option (ACO) by SENMC will have to have their SAP separately calculated for Time Frame, Completion Rate, and GPA. Federal regulations do not allow a student's SAP to be calculated based on adjusted GPA, time frame or completion rate if Academic Amnesty has been applied to the student's records.

When evaluating a student with an ACO, the financial aid advisor must calculate their completion rate as would be done for any other student (all credits completed divided by all credits attempted). Time frame will

be evaluated by adding all credits attempted at SENMC plus any transfer credits accepted at SENMC. For GPA, the actual non-adjusted cumulative GPA must be determined without any consideration of the ACO and the non-adjusted cumulative GPA must be used for purposes of evaluating SAP requirements. These students will be coded with ACO until reviewed.

Graduation Requirements
Graduate Outcomes

Upon graduation, students of SENMC will be able to satisfactorily demonstrate:

- Effective communication skills in reading, writing, listening, and speaking.
- Basic critical thinking skills including problem identification, evidence acquisition, evidence evaluation, and reasoning/conclusion.
- An understanding of personal and social responsibility.
- An ability to apply the fundamental concepts of quantitative reasoning in mathematics and science.
- Appropriate information and digital literacy, and skills for personal and professional use.
- An understanding of the fundamental concepts for analyzing significant primary texts and/or works of art, including fine arts, literature, music, theater, and film.

ETS Proficiency Profile Exit Test Requirement

To evaluate its graduate outcomes, SENMC has chosen the ETS Proficiency Profile. This exam measures students' proficiency in reading, writing, mathematics, science, and critical thinking. **All students who are graduating with an associate degree should take this exam within the last two semesters of their program.** Some courses have incorporated this exam into the required coursework. Students will be given information about the exam site and date at the time that they apply for graduation.

International Students
Who is considered an International Student?

If you live outside the U.S., or are not a U.S. citizen, you may be an international student. For admissions purposes, anyone who has completed their most recent degree or credential at an institution outside the U.S. is considered to be an international student.

Admissions

International students may apply for admissions to take online courses or in person courses and must meet admissions requirements. All transcripts from a foreign country must be evaluated and translated into English.

Student Visas

SENMC is not an I-20 certificate issuing institution.

Transfer Credits

For degree seeking students SENMC recommends SpanTran: TEC (https://spantran.com/) for high school and college transcript evaluations.

Military and Veterans Programs (MVP)

SENMC is a veteran and military friendly college which strives to provide the best possible service to our current and former service members as they pursue their educational goals. The SENMC Military and Veterans Affairs Office promotes lifelong learning and professional development for veterans, active-duty military and their families, assisting them in their higher education goals by offering:

- Affordable, Carlsbad-resident tuition rates for active-duty military personnel and dependents living at regional military installations
- Affordable, Carlsbad-resident tuition rates for veterans receiving U.S. Department of Veterans Affairs education benefits
- Easily transferable credits that count toward certificates and degrees at SENMC
- Facilitation of all Department of Defense Tuition Assistance (TA) Benefits
- Courses taught in-person and online with innovative technology and course delivery methods
- Student advocacy at every level, from admissions to graduation
- Resource materials from a variety of veteran and military service organizations
- Priority registration for all military and veteran students
- Connect with student organizations.
- A tradition of quality education.

SENMC certificate and degree programs are approved for VA certification by the State Approving Agency Director at the New Mexico Department of Veteran Services. Military and Veteran students may be eligible to receive education benefits from the U.S. Department of Veterans' Affairs (VA), and may contact the VA at 1 (888) 442-4551 or visit https://www.va.gov/education/ to apply. For further information, contact the SENMC VA Office, located in the Main building in the Financial Aid Office.

Tuition Rates and Waivers
Active-Duty

Active-duty military personnel (Armed Forces) stationed in New Mexico or at Fort Bliss, Texas may complete a Military Carlsbad Resident Tuition Waiver to qualify for Carlsbad resident tuition. Spouses and minor children of active duty personnel who are stationed in New Mexico and Fort Bliss, Texas who are not otherwise entitled to claim in-state residency, may apply for Carlsbad resident tuition by submitting a Military Carlsbad Resident Tuition Waiver to the SENMC VA Office. Waiver forms are available through the VA Office.

Dependents Receiving VA Educational Benefits

Per NM 2015 HB 427:

A spouse or child of a veteran of the armed forces is entitled to pay tuition and fees at the rate provided for Carlsbad residents; provided that the spouse or child is eligible for benefits pursuant to the federal Post-9/11 Veterans Educational Assistance Act of 2008 or any other federal law authorizing educational benefits for a veteran and the dependents of a veteran. To apply, students who are eligible must complete the Military Carlsbad Resident Tuition Waiver and submit to the SENMC VA Office. Waiver forms are available through the SENMC VA Office.

Veterans

Veterans receiving U.S. Department of Veterans Affairs education benefits are eligible for Carlsbad resident tuition through the Veterans In-State Tuition Act by submitting a Military Carlsbad Resident Tuition Waiver. For further information concerning approved programs and application process, eligible persons should contact the SENMC VA Office.

Veteran students enrolled under the following programs are responsible for their tuition and fees in the same manner as a non-veteran student.

- Montgomery GI Bill® Active Duty (CH30)
- Dependents (CH35)
- Montgomery GI Bill® Selected Reserve (CH1606)

Regulations

Note: These regulations apply to SENMC and are effective with the publication of this catalog. Tuition amounts, fees, and similar items subject to annual review and change are all effective with the current catalog.

The New Mexico Department of Veteran Services and the U.S. Department of Veterans Affairs (VA) have approved SENMC courses for study by veterans and others who qualify for veteran's educational assistance. Processing of applications and certifications takes from 4 to 6 weeks and should, therefore, be initiated well in advance of course registration. Veterans must bring their course schedule to the SENMC VA Office each semester for continued certification.

Veterans must maintain satisfactory attendance, conduct and progress. If the veteran does not meet the standards set by SENMC, the certifying official must notify the VA, at which time the VA will discontinue benefits.

If the college has liability claims filed against it as a result of a veteran failing to meet compliance requirements of the VA, the college will not release any academic records on the veterans until such time as the veteran has reimbursed SENMC for funds drawn in violation of those requirements.

Credit for Military Service

Southeast New Mexico College will award academic credit to United States military personnel for courses and Military Occupational Specialties (MOS), based on the American Council of Education Guide (ACE) as well as through national standardized tests, such as CLEP, AP, PEP and DANTES. One of the criteria for approval of any school for Veterans' training is that it reviews prior credit and grant credit as appropriate to a VA student's current program. This is found in Title 38, Code of Federal Regulations (https://www.ecfr.gov/current/title-38/chapter-I/part-21/?toc=1), Sections 21.4253(d)(3) and 21.4254(C)(4). In essence, this requires every approved school to have and enforce a policy with regard to transfer courses, credits, and previous experience. Military Training and Military Occupational Specialties (MOS) must have a recommendation evaluation by ACE (in the ACE Guide) for credit to be awarded. Courses accepted for transfer credit become part of the student's official SENMC transcript and academic record. If a student wishes to appeal a decision regarding the acceptance of military training/education and/or MOS for academic credit, the student may begin the appeal process by submitting a written statement of appeal to the Registrar's Office. The complete appeal process policy can be obtained by contacting the Registrar's Office.

Only Primary MOS(s) are eligible for academic credit in the initial review and evaluation. Credit for Duty and/or Secondary MOS may be eligible for academic credit if the student petitions the Registrar's Office. Primary MOS is the primary specialty of a soldier and reflects the broadest and most in-depth scope of military experience. Veterans, active-duty personnel, National Guard, and Reservists who are current students or students applying for admission to Southeast New Mexico College may be granted academic credit on a case-by-case basis upon evaluation of military transcripts – the Joint Service Transcript (jst.doded.mil) and the Community College of the Air Force (CCAF) transcripts. Course equivalencies and credit hours awarded for a particular SENMC degree are determined by college and/or academic departments. Credit hours may be awarded for specific courses toward degree requirement or as elective credit. The number of credit hours awarded will be determined by the college and/or academic department.

Note: Students submitting military transcripts for credit evaluation must keep in mind the Maximum Time Frame policy. See Financial Aid Section for clarification.

Tuition Assistance

Tuition Assistance (TA) is a benefit paid to eligible active duty members of the Air Force, Army, Coast Guard, Marines and Navy. The Department of Defense (DoD) has given each service the ability to pay up to $250 per semester credit hour of the actual cost of tuition (no fees) during the fiscal year (Oct. 1 - Sept. 30). TA must be requested and approved prior to the start date of the course.

Service members must first be admitted to SENMC before they may enroll in any classes at SENMC.

Please be aware of our admission and registration process:

1. Service members must apply online to be admitted,
2. login to my.SENMC.edu (https://senmc-public.courseleaf.com/students-regulations/military-veterans-programs/my.senmc.edu) to register for classes, and
3. create an account and Request TA through their service online portal. Each service has its own criteria for eligibility, application process and restrictions. Links to the individual service's online portals can be obtained by contacting the SENMC VA Office.

It is important to request TA for the same class and section number as enrolled in SENMC for tuition and grading purposes. Only enrollments requested and approved through their service online portal will be eligible for TA. Contact the SENMC VA Office for additional assistance at (575) 234-9226.

Military Drop (Withdrawal)

The following steps must be taken by all Southeast New Mexico College students called up for active duty who wish to drop (withdraw) from their classes:

1. SENMC VA Office: VA student ordered to Active Duty must provide a copy of orders to the SENMC VA Office and the Office of Student Services. To assist in reporting accurate information to the VA Regional Office, student should also provide, in writing, the last day of class attendance.
2. Office of Student Services: All students presenting their orders to the Office of Student Services will receive a military drop (withdrawal) from classes and a full tuition and fees refund for that semester.
3. Bookstore: Students who still have their receipts for textbooks purchased the semester in which they are called to active duty will be

given a full refund for these textbook purchases when they present their orders.

Veterans' Attendance and Satisfactory Progress

The U.S. Department of Veterans Affairs requires all veterans receiving VA education benefits to make satisfactory progress and systematic advancement toward an educational objective or be liable for over-payments. Satisfactory progress and regular class attendance are expected of such students.

If a veteran receiving benefits is suspended for academic reasons, benefits are terminated and will be restored only after readmission to SENMC. Suspension will be reported to the VA.

If the college has liability claims filed against it as a result of a veteran failing to meet compliance requirements of the U.S. Department of Veterans Affairs, the college will not release any academic records on the veteran until such time as the veteran has reimbursed SENMC for funds drawn in violation of those requirements.

A student receiving VA education benefits who is pursuing a degree program offered by Southeast New Mexico College should adhere to the curriculum of that program. Failure to do so will result in the student being certified for less than full-time status or becoming liable to the college for an over-payment.

Resources for Students
Responsibility of Veteran Students

Students must be pursuing a certificate or degree in a specific program to be eligible for benefits. Admission procedures for veterans and other eligible persons are the same as for all students. Students must meet with their academic advisor for registration each semester prior to certification. For continued certification, students must submit a Student Course Schedule to the VA Office every semester.

Veterans must notify the VA Office when any of the following occurs:

• Unregistering or adding course(s)
• Dropping (Withdrawing) from course(s)
• Discontinuing regular class attendance
• Changing programs (academic majors)

VA education benefits are payable for regular attendance in courses that are part of the veteran's program (major) curriculum. VA educational benefits are not payable for:

• Classes not attended regularly
• Repeating a course for which a passing grade was received
• Classes for which credit is received through successful completion of a proficiency test or grade by examination
• Classes taken on an audit basis
• Classes that are unregistered or dropped (withdrawn) from
• Classes that are not part of the veteran's program (major) curriculum

Allowing Veterans to Attend or Participate in Courses Pending VA Payment
Background

Section 103 of Public Law (PL) 115-407, 'Veterans Benefits and Transition Act of 2018,' amends Title 38 US Code 3679 by adding a new subsection (e) that requires disapproval of courses of education, beginning August 1, 2019, at any educational institution that does not have a policy in place that will allow an individual to attend or participate in a course of education, pending VA payment, providing the individual submits a certificate of eligibility for entitlement to educational assistance under Chapter 31 or 33.

Pending Payment Compliance

In accordance with Title 38 US Code 3679(e), Southeast New Mexico College adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post-9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation & Employment (Ch. 31) benefits, while payment to the institution is pending from VA. Southeast New Mexico College will not:

• Prevent the student's enrollment;
• Assess a late penalty fee to the student;
• Require the student to secure alternative or additional funding;
• Deny the student access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

• Produce the VA Certificate of Eligibility (COE) by the first day of class;
• Provide a written request to be certified;
• Provide additional information needed to properly certify the enrollment as described in other institutional policies

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at https://www.benefits.va.gov/gibill (https://www.benefits.va.gov/gibill/).

SENMC Military & Veterans Contact Information

Financial Aid Office, Room 107
1500 University Drive
Carlsbad, NM, 88220
Phone: (575) 234-9226
financialaid@senmc.edu

Recognition of Academic Achievement

Degrees and Certificates earned are recorded on the student's academic record.

Attendance at Commencement

The Registrar will confirm eligibility to participate in commencement exercises held at the close of the spring semester. Eligible candidates (registered for final degree requirements, as certified by the Registrar)

and degree recipients from the previous summer and fall sessions will participate in the spring ceremony.

Commencement is a symbolic ceremony. Participation in commencement does not, in itself, mean that a student is considered a SENMC graduate. In order to be awarded a degree, a student must fulfill college requirements as determined by academic colleges. The degree will reflect the graduation date from the application for degree in which all degree requirements were determined by the academic colleges.

Applying for a Certificate or an Associate Degree

Eligible students are required to submit an application for a certificate or associate degree by the deadline as published in the Schedule of Classes for the semester. It is recommended that students print a certificate or degree audit through their my.SENMC.edu (https://senmc-public.courseleaf.com/students-regulations/recognition-academic-achievement/my.senmc.edu) account and have it reviewed by an academic advisor at least one semester prior to registration for their last semester and also give a copy of the audit to Student Services Office staff for the student file. If certificate or degree requirements are not completed during the semester for which the student applied, the student must reapply and pay applicable fees.

The earliest catalog you may select is the catalog in effect the first semester you attended college, or any subsequent catalog, provided it is not more than eight years old when requirements are met.

Recognition of Academic Achievement
Graduation with Honors
- SENMC graduates with a GPA of 3.5 or higher are recognized as graduates with Honors.
- SENMC graduates with a GPA of 3.75 or higher are recognized as graduates with High Honors.

President's Honor List Semester Report of Academic Achievement

Following the close of the semester, the Registrar's publishes a list of students who have achieved honor standing in grades for the previous semester. To be eligible, a student must have been enrolled in 12 or more semester credits with a computable grade in each with cumulative GPA of 3.5 or higher.

Repeating Courses

A student may repeat a course in which a D or F grade has been earned. A computable grade (excluding I, W, AU, CR, S or U) in a repeated course may be submitted in the calculation of the grade point average, though the original grade also remains on the transcript. The first occurrence with a C- or better grade will count in earned/passed hours. Future attempts will not count in attempted/earned hours.

Repeated courses count as attempted hours each time a student registers for them. Also, each course is counted in the student's financial aid GPA requirement.

Neither credits nor grade points may be earned by repeating a course for which a grade of C or higher has already been received. Repeat options

applies only to eligible courses that were completed prior to the time a student was awarded a degree at SENMC.

Return of Title IV Funds
Process Overview and Applicability

The federal government mandates that students who drop (withdraw) or fail to complete *all* scheduled classes within a term may only keep the financial aid they have "earned" up to the time of the drop (withdrawal). Any unearned aid must be returned regardless if it has already been disbursed. This situation could result in the student owing financial aid funds to the university, government, or both. The higher number of class days completed, the lower the amount of financial aid that must be returned.

Policy

Students who receive financial aid funds and subsequently drop (withdraw) from the same term (for any reason) will be required to have a Return of Title IV calculation processed (R2T4). Financial Aid is awarded to a student under the assumption that the student will attend school for the entire period of enrollment for which the assistance is awarded.

Once a student has completed more than 60% of their scheduled period of enrollment during a semester, the student is allowed to keep 100% of aid even if a drop (withdrawal) occurs after that point. However, you must still determine whether the student is eligible for a post-drop (withdrawal) disbursement.

If a student ceases attendance (drops or withdraws) from all their Title IV eligible courses and is only enrolled in *non*-Title IV eligible courses during their period of enrollment, the student must be considered a withdraw for Title IV purposes. Non-Title IV courses include ones that a student is auditing; completing requirements for a course they previously received an "Incomplete", or are repeating.

Types of withdrawals are:

1. Official Drop (Withdrawal) – An official drop (withdrawal) is one where the student has provided notice of their intent to cease attending school. A student is also considered an official drop (withdrawal) if they drop or withdraw from all current classes in a specific term, but are still enrolled in upcoming module courses (mini sessions or short courses) in the same term and have not informed in writing to the Financial Aid Office that they will be attending those courses.

2. Unofficial Drop (Withdrawal) – An unofficial drop (withdrawal) is one where we have not received notice from the student that the student has ceased attending school. These students are found when the period of enrollment has ended and grades have been posted to the students account. If a student receives all non-passing grades, they are considered to be an unofficial drop (withdrawal).

3. Drop (Withdrawal) after rescission of Official Notification – a student may provide official notification of their intent to drop (withdraw) and then change their mind. To allow a student to rescind their intent to drop (withdraw) for purposes of the R2T4 calculation, the student must provide a written statement stating their intent to remain in academic attendance through the end of the period of enrollment. If the student subsequently withdraws after rescinding an intent to drop (withdraw), the

drop (withdrawal) date is the date the student first provided notification.

4. Retroactive Drop (Withdrawal) – A retroactive drop (withdrawal) refers to a student who is requesting to withdraw from a term that has already been completed.

When it has been determined that a student has dropped (withdrawn), the student is no longer considered to be enrolled and in attendance. Therefore, the student is no longer eligible for an in-school status or in-school deferment, and they must be reported as dropped (withdrawn) in the NSLDS Enrollment reporting.

A student is to begin the official drop (withdrawal) process with SENMC's Registrar. The Registrar will process the drop (withdrawal) with an effective date of when the student first gave notice of their intent to drop (withdraw) regardless of when the student returns the form with the required signatures.

Procedure

The regulations state that students earn their financial aid based on the period of time they were actually enrolled.

The formula to determine the percentage of aid earned is: The number of days completed up to the drop (withdrawal) date divided by the total days in the scheduled period of enrollment or term (any break of five days or more is not counted as part of the days in the term) will equal the percentage of aid earned.

Once a student has completed more than 60% of their scheduled period of enrollment during a semester, the student is allowed to keep 100% of aid even if a drop (withdrawal) occurs after that point.

The Financial Aid Office is responsible for running both the Anthology process and reports weekly to obtain a report listing all students who dropped (withdrew) during the week prior. If there are any question/concerns about the validity of the drop (withdrawal) date, all questions are taken to the Registrar for clarification.

Students dropping (withdrawing) from modules must be reviewed to determine if an *Intent to Return* letter needs to be mailed to the student. The student then has 10 days to respond to the letter. If it is determined that the student has added a module "at the time of the drop (withdrawal)" which shows intent to return (DCL GEN-11-14), do not send a letter and do not process a drop (withdrawal).

Responses from student, from their Intent to Return letter, must be a written confirmation, not verbal. Email confirmation is acceptable.

All R2T4 calculations must be completed within 30 days of the student's withdrawal date. The returns of unearned Title IV aid must be returned within 45 days of the student's date of determination. The student is to be sent a letter to their mailing address on record detailing both the type and the dollar amount of aid that is being billed and returned.

Drop (Withdrawal) Date
Policy

The drop (withdrawal) date for official drops (withdrawals) is determined as follows:

When official notification is provided, the student's drop (withdrawal) date is

• The date the student begins the school's official drop (withdrawal) process; OR

• The date that the student otherwise provides the notification; OR

• If both circumstances occur, use the earlier drop (withdrawal) date

The drop (withdrawal) date for unofficial drops (withdrawals) is determined as follows:

When official notification is not provided, the student's drop (withdrawal) date is

• The midpoint of the payment period or period of enrollment, as applicable; OR

• The date that the school determines is related to the circumstance beyond the student's control.

Drop (Withdrawal) after rescission of an official notification

• The student's original drop (withdrawal) date from the previous official notification

Since SENMC is not required to take attendance, the student's last date of attendance at an academically related activity may also be used as a student's drop (withdrawal) date. If the last documented date of attendance at an academically related activity more accurately reflects the student's drop (withdrawal) date, than the date the student began SENMC's drop (withdraw) process or notified SENMC of their intent to drop (withdraw), you may use this date instead.

Procedure

Using the drop (withdrawal) process, the Financial Aid Office is responsible for running the report on weekly basis to obtain a listing of all students who dropped (withdrew) during the week prior. If there are any questions/concerns about the validity of the drop (withdrawal) date, all questions are taken to the Registrar for clarification.

If a student provides official notification of their intent to drop (withdraw) and then changes their mind, the student must provide a written statement stating their intent to remain in academic attendance through the end of the period of enrollment. This written statement must be documented in the student's file. If the student subsequently withdraws after rescinding an intent to drop (withdraw), the drop (withdrawal) date is the date the student first provided notification.

Formula Calculation
Policy

The Financial Aid Office is responsible for ensuring all Return of Title IV Fund calculations are processed and any unearned funds are returned by the Business Office to the appropriate federal program as soon as possible but no later than 45 days from the determination of a student withdrawal.

The Anthology Return of Title IV Funds process, assist in complying with the Title IV regulations for federal financial aid.

The Anthology process enables you to do the following:

• Allow applications of payments to pay off only allowable charges, or to pay off all charges based on user authorization

• Identify original charges as required for the return calculation

• Define break periods with in the period of enrollment

• Identify Title IV recipients who have fully drop (withdrawn)

• Determine the enrollment period and the point in the period that enrollment terminated

- Determine a student's institutional charges, Title IV aid, and percentage of enrollment period completed in order to calculate the Title IV repayment
- Determine the amount of Title IV aid that should be returned to the Title IV programs by the institution and/or student, or post-drop (withdrawal) disbursed to the student
- Refund Title IV credits

Although the Anthology drop (withdrawal) process is the preferred method to ensure accuracy in the R2T4 calculation, if a hand calculation is required, R2T4 worksheets can be found on the Department's Information for Financial Aid Professionals website at: https://fsapartners.ed.gov/knowledge-center/fsa-handbook/fsa-assessments/return-title-iv-funds (https://fsapartners.ed.gov/knowledge-center/fsa-handbook/fsa-assessments/return-title-iv-funds/).

Procedure
Run reports in Anthology to identify drops (withdrawals)

- for students who have drop (withdrawal) records
- for students who dropped current classes but have future module classes they are still enrolled in – these students need to be reviewed to determine whether or not an Intent to Return letter needs to be sent. If the student does not confirm they will be attending, a R2T4 calculation must be processed.
- For students who may have drop (withdrawn) but then re-enrolled
- For students who never attended – this report is run at the end of each semester after grades post and before the unofficial drop (withdrawal) report is run. This report needs to be worked before the unofficial drop (withdrawal) report can be processed. This report provides a list of students that instructors have indicated the student never attended class.
- For students who are unofficial drops (withdrawals) – this report is run at the end of each semester after grades post to identify students who are unofficial drops (withdrawals)
- For students that have had an R2T4 calculation performed but the amount that the calculation shows should have been awarded does not match hat is posted in Anthology. This helps catch potential billing mistakes and ensures that we stay within the 45 day timeline for returning funds.

Verify Attendance in all courses dropped/withdrawn from to ensure student attended all courses they were paid aid for by:

- Emailing instructor for Traditional courses.
- Using Canvas lookup on My.SENMC.edu for online courses.

The following are institutional charges that must be included in the student's R2T4 when applicable:

- Tuition and Fees
- Books and supplies
- SENMC Fees
- Course Fees

Examples of non-institutional charges that are not to be included in the student's R2T4 calculation include but are not limited to:

- Library fines
- Parking fines
- Health Center fees

- Application fees
- Degree fees

The calculation of earned Title IV funds includes the following Title IV grant and loan funds if they were disbursed or could have been disbursed to a student for the period of time for which the calculations is being performed:

- Pell Grant
- Iraq and Afghanistan Service Grant
- FSEOG
- Direct Loan

For Direct Loans, a second or subsequent disbursement must be counted as aid that could have been disbursed in the R2T4 calculation even if the student is ineligible to receive them as post-drop(withdrawal) disbursement. The disbursement of a Direct Loan for a first-time borrower who drops (withdraws) before the 30th day of the period of enrollment must also be counted as aid that could have been disbursed.

Federal Workstudy funds are not included in the calculation.

Post-Withdrawal Disbursement
Policy
A post-drop (withdrawal) disbursement, a type of late disbursement, applies to a student who withdraws completely from school. The amount of the disbursement is determined by the R2T4 calculation required when a student drops (withdraws) from school. All post-drop (withdrawal) disbursements must also meet late disbursement conditions. A student may not receive any funds as a post-drops (withdrawal) disbursement that we were prohibited from making on or before the date the student dropped (withdrew).

Post-withdrawal disbursements may be credited to a student's account to pay toward current tuition, fees, books, supplies up to the amount of outstanding charges. Authorization must be received from the student either before or after the student's withdrawal date to credit the student's account with Title IV funds for minor prior award year charges of $200 or less.

Procedure
The Financial Aid Office must offer any post-withdrawal disbursements of loan funds within 30 days of the date of the schools determination that the student withdrew and make a post-withdrawal disbursement of grant funds within 45 days of that date.

Any undisbursed Title IV aid for the period that the school uses as the basis for the Return calculation is counted as aid that could have been disbursed as long as the following conditions were met before the date the student became ineligible:

- For all programs, the Department processed a Student Aid Report (SAR) or Institutional Student Information Record (ISIR) with an official Expected Family Contribution (EFC) for the student;

- FSEOG - student was offered an award prior to the withdrawal;

- Direct Loan – student was offered the loan and the loan was originated prior to the withdrawal. A promissory note must be signed for a loan to be included as "aid that could have been disbursed" in a R2T4 calculation. The signature may be obtained after the student withdraws. However, for the loan to be included as aid that could

have been disbursed the promissory note must be signed before the school performs the R2T4 calculation.

For Direct Loans, a second or subsequent disbursement must be counted as aid that could have been disbursed in the R2T4 calculation even if the student is ineligible to receive them as post-withdrawal disbursements.

The disbursement of a Direct Loan for a first-time borrower who withdraws before the 30th day of the period of enrollment must also be counted as aid that could have been disbursed. However, it is prohibited from actually disbursing these loan funds as a post-withdrawal disbursement.

If it has been determined that a student stopped attending all classes and is an unofficial withdrawal, and the 50% point is used as the withdrawal date, the Financial Aid Office must make a separate determination of the date the student lost eligibility before a post-withdrawal disbursement can be made.

It is permitted to credit a student's account with post-withdrawal disbursement of grant funds, without the student's permission, for current tuition, fees, books and supplies up to the amount of outstanding allowable charges.

It is not permitted to automatically credit loan funds to a student's billing account when a student is eligible for a post-withdrawal disbursement of loan funds. The student must be contacted to determine if the loan funds are still needed. This contact must include counseling regarding the obligation to repay loan funds. The student has 14 days in which to respond if a post-withdrawal disbursement of a Direct Loan is wanted. Once the student has been contacted, the final decision on whether or not they requested a post-withdrawal disbursement of loan funds must be documented in the student's file.

Returning Unearned Funds

Policy
Once the R2T4 has been calculated, the Title IV funds are refunded to the programs from which the student received aid during the period of enrollment in the following order, up to the net amount disbursed from each source:

- Unsubsidized Direct Loan
- Subsidized Direct Loan
- Direct Parent PLUS Loans
- Federal Pell Grants
- Iraq and Afghanistan Service Grant
- Federal Supplemental Opportunity Grants (SEOG)

The Financial Aid Office is responsible for ensuring that the return of unearned funds will be done as soon as possible but no later than 45 days from the determination of a student's withdrawal.

The Financial Aid Office will be considered to have returned funds timely as long as one of the following is done no later than 45 days after the date it has been determined that a student withdrew:

- Deposits or transfers the funds into the school's federal funds bank account, and then awards and disburses the funds to another eligible student
- Returns the funds to the Department electronically using the "Refund" function in G5

If it is required to return Direct Loan funds to comply with a regulatory or statutory requirement, even if more than 120 days have elapsed since the disbursement date, the Direct Loan funds must be returned through G5. Direct Loan funds are returned to the Department following the same procedures that are followed when making other G5 refunds/returns.

Procedure
The Financial Aid Office must ensure the return of unearned funds be returned as soon as possible but no later than 45 days from the determination of a student's withdrawal.

Within 30 days of the date of determinations that the student withdrew, the Financial Aid Office must send a notice to the student's mailing address on record detailing the type of aid and the dollar amount being returned due to the withdrawal.

The Financial Aid Office must refer to the Secretary of the Department of Education, following the procedures required by the Secretary, an overpayment of Title IV HEA grant funds owed by a student as a result of the student's withdrawal from SENMC if:

- The student does not repay the overpayment in full, or enter a repayment agreement with SENMC within the earlier of 45 days from the date the notification of overpayment was mailed to the student; or
- At any time the student fails to meet the terms of the repayment agreement; or
- The student chooses to enter in a repayment agreement with the Secretary

When it has been determined that a student has withdrawn, the student is no longer considered to be enrolled and in attendance. Therefore, the student is no longer eligible for an in-school status or in-school deferment, and it is the responsibility of the Registrar to report the student as withdrawn into the Clearinghouse.

Transfer Students

Requirements for admission as a transfer student include the following:

1. Apply for admission. For an online application click here (https://senmc.edu/admissions/transfer-student.html) or request a paper form from the Student Services Office.
2. Request official transcripts of high school or GED and all previous college course work. All official transcripts should be mailed directly by the school or college registrar to:
   SENMC
   ATTN: Admissions Office
   1500 University Drive
   Carlsbad, NM 88220
3. Take placement tests in certain Math, English and Reading. The test may be waived for students who have taken the ACT within the last year, are transferring in Math, Reading or English courses or pursuing vocational programs.
4. Meet with your academic advisor before registering to receive assistance with choice or major, course information, degree plans and proper course selection.
5. Enter registration information via the my.senmc.edu (https://senmc-public.courseleaf.com/students-regulations/transfer-students/my.senmc.edu) student

portal and pay, or make arrangements to pay, applicable tuition and fees in the Business Office.

Transcripts

Transfer students must have official transcripts forwarded directly to the Admissions Office by the Registrar of each college or educational institution previously attended. A student who conceals the fact that he or she has attended another college or university, and who has not had the Registrar submit a transcript for each institution whether or not credit was earned, will be subject to immediate suspension. SENMC will uphold academic and judicial suspensions from other colleges and universities.

Transfer of Credits at SENMC

SENMC evaluates courses from post-secondary institutions that are regionally accredited or are candidates for regional accreditation. Provided the classes are similar or equivalent to courses offered at SENMC, credits will be matched for coursework completed with a grade of D- or better. However, some programs require courses with a grade of C- or higher. Grades of courses with a D- or higher taken at other institutions are not included in the calculation of the GPA. Acceptance of transfer credits by the College does not guarantee those courses will satisfy specific degree or certificate requirements.

Evaluation of Transfer Credits

Once a student has been admitted to SENMC, an evaluation of credits on a course-by-course basis is conducted by the Registrar's Office. Courses that require departmental approval are sent to the department chair for review. The department chair approves those transfer courses that are acceptable toward a degree or a certificate. Credits from non-accredited institutions will be evaluated by the registrar and approved by the department chair if it applies to the students degree or certificate. Courses that are transferred and are part of the NMHED Common Course Numbering Matrix are accepted according to NMAC 5.55.5 (https://www.srca.nm.gov/parts/title05/05.055.0005.html).

Transferring Courses to Fulfill the New Mexico General Education Curriculum

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

The core matrix of approved courses guaranteed to transfer and meet general education curriculum requirements at any New Mexico college or university can be found on the New Mexico Higher Education Department web site on the New Mexico General Education Curriculum page (https://hed.nm.gov/resources-for-schools/public_schools/general-education/). Courses are listed by institution, whether university or community college, under each of the seven content areas. The courses for Southeast New Mexico College are listed in the general education courses section of this catalog.

Transferring Courses within Degree Programs

To facilitate the transfer of courses within certain degree programs, New Mexico colleges and universities have collaborated to develop transferable discipline modules. These are composed of an agreed upon number of hours and courses. When discipline module courses are taken in addition to the 31-hour general education core, the total number of hours in a transfer module are approximately 60.

Transfer Credit Appeal Process

If courses are not accepted for transfer by the College the student may appeal this decision. In order for a student to appeal the transfer evaluation they must follow the steps below:

1. File a written appeal with the Registrar's Office, including the information of the course(s) in the appeal.
2. Provide a syllabus from the institution the course was completed at the time the student completed the course.
3. The Registrar's Office will review within in 30 days of receiving the written appeal.
4. If denied by the Registrar the student can then file an appeal with the Vice President of Academic Affairs.

If the student is denied a second time they may appeal to the New Mexico Higher Education Department at https://hed.nm.gov/students-parents/student-complaints. (https://hed.nm.gov/students-parents/student-complaints/)

Student Responsibility

Planning for effective transfer within maximum efficiency is ultimately the student's responsibility. Responsible transfer planning includes early and regular consultation with the intended degree-granting institution to assure that all pre-transfer coursework will meet the requirements of the desired degree.

Tuition, Fees and Other Expenses

All costs are given for one term/semester. The College reserves the right to change any of the charges without notice.

Campus Tuition Rates

For a full listing of all tuition rates from the SENMC please see the Tuition & Fees (https://senmc.edu/business-office/tuition-fees.html) page.

Undergraduate Tuition and Required Fees
Course Fees (Fees Assessed per Course)

Courses in computer science, physical education, manufacturing and craft skills, nursing, science, welding and other courses, may require students to pay fees to acquire special supplies. Some music courses also require additional fees. These fees are approved by the SENMC Board of Trustees and are listed each semester in the Schedule of Classes published by SENMC.

Fee	Cost
ACCT 1150	25.00
ACCT 2110Y	25.00
ARTS 1240	25.00
ARTS 1610	25.00

ARTS 1630	25.00		OATS 213	15.00
ARTS 2610	25.00		OATS 214	15.00
ARTS 2616	25.00		OATS 218	15.00
ARTS 2630	25.00		OATS 223	15.00
ARTS 2635	25.00		OECS 101	80.00
BIOL 2110L	25.00		OECS 105	80.00
BIOL 2210	25.00		OECS 110	80.00
BIOL 2210C	15.00		OECS 125	80.00
BIOL 2225C	25.00		OECS 185	25.00
BIOL 2310L	25.00		OECS 207	80.00
BIOL 2610L	25.00		OECS 208	80.00
CHEM 1225G	25.00		OECS 209	80.00
CHEM 1226	25.00		OECS 211	80.00
CHEM 2115	25.00		OECS 215	80.00
E T 120	15.00		OECS 220	80.00
E T 155	10.00		OECS 230	80.00
E T 182	10.00		OECS 231	80.00
E T 183L	10.00		OECS 280	80.00
E T 184	10.00		OEEM 101	125.00
E T 217L	40.00		OEEM 120	125.00
FDMA 2150	40.00		OEEM 120 L	125.00
FDMA 2210	40.00		OEEM 121	125.00
FDMA 2285	40.00		OEEM 150	175.00
FDMA 2360	40.00		OEEM 150 L	175.00
FDMA 2520	40.00		OEEM 151	175.00
FDMA 2715	40.00		PHYS 1115G	25.00
FDMA 2730	40.00		PHYS 1230L	25.00
FDMA 2735	40.00		PHYS 1240L	25.00
FDMA 2740	40.00		PHYS 1310L	25.00
FDMA 2996	40.00		WELD 100	50.00
GEOG 1110G	25.00		WELD 105	50.00
NA 101	50.00		WELD 110	50.00
NA 115	55.00		WELD 115	50.00
NURS 146	80.00		WELD 120	50.00
NURS 153	50.00		WELD 125	50.00
NURS 154	50.00		WELD 126	50.00
NURS 155	15.00		WELD 130	50.00
NURS 156	80.00		WELD 140	50.00
NURS 210	50.00		WELD 150	50.00
NURS 211	50.00		WELD 151	50.00
NURS 212	50.00		WELD 170	50.00
NURS 246	80.00		WELD 180	50.00
NURS 256	80.00		WELD 180	50.00
NURS 258	80.00		WELD 211	50.00
OATS 101	15.00		WELD 255	50.00
OATS 105	25.00		WELD 295	50.00
OATS 106	25.00			
OATS 121	15.00			
OATS 150	10.00			
OATS 202	15.00			
OATS 205	15.00			
OATS 211	15.00			

Payment of Charges

By enrolling in classes at SENMC, a student makes a financial commitment to pay the tuition and fee charges associated with that enrollment. The enrollment action constitutes a financial obligation between the student and SENMC and all proceeds of this agreement will be used for educational purposes and constitute an educational

loan pursuant to 11 U.S.C. § 523 (a) (8). Payments can be made by mail, web, telephone, or in person at the SENMC Business Office. Cash, checks, money orders and limited types of credit cards are accepted. Term charges can be paid in full or paid by using a payment plan. For payment plan contact the Business Office. Fees vary based on the plan. All financial aid received must be paid towards balances owed. Additional penalty charges may be assessed for failure to make payments when due. The College reserves the right to deny a payment plan to any student who has been negligent in making payments to the College for previous debts. Academic credits, transcripts and diplomas will be withheld until all financial obligations are paid. Students are prohibited from registering for a term until all previous debts that are due to the College are paid in full.

Tuition Adjustments, Refunds and Forfeitures

Students officially unregistering courses during a semester or term are eligible for a 100-percent refund of tuition and fees through the deadlines listed online. Go to Important Dates for Students. Students dropping (withdrawing) from courses after that deadline will not be eligible for a refund and will remain liable for full tuition and fee charges. Non-attendance does not constitute an official course unregister or drop (withdrawal). All charges due to SENMC must be paid before refunds or adjustments will be permitted.

In case of academic or disciplinary suspension, eligibility for tuition refunds and adjustments will depend on the condition of the suspension and will be entirely at the option of the college. Should unforeseen circumstances beyond the reasonable control of Southeast New Mexico College result in curtailing classes or otherwise withdrawing services that are a normal function of the institution, refunds of any nature will be at the discretion of the college/College administration.

Payment Plan

For current information, please contact the Business office.

Delinquent and Prior-Term Balances

SENMC reserves the right to cancel the registration of any student who fails to pay, when due, any indebtedness to the institution. Academic credits, transcripts and diplomas will be withheld until all financial obligations are paid.

Dishonored Financial Transactions – Checks, Credit Cards, ACH Transactions

The College charges a penalty on all dishonored cash instruments. Personal checks will not be accepted from students who have had previously dishonored checks.

Estimating Other Expenses

In addition to the direct costs stated above, other expenses per semester may include such items as textbooks, supplies and personal expenses.

WAYS TO QUALIFY FOR LOWER TUITION RATES

Resident or nonresident status is determined in accordance to a uniform definition established for all New Mexico institutions by the Higher Education Department, State of New Mexico. The Registrar's Office administers residency. Information on the following programs may be obtained from the College Admissions, the College Financial Aid and Scholarship Services, the NM Administrative Code (NMAC) 5.7.18.

- American Indian Agreement
- Colorado-Arizona Reciprocal Agreement
- Dual Credit
- Fire Fighter and Peace Officer Survivor Scholarship
- Foreign Military Dependent
- Foreign Military Spouse
- Foreign Military Stationed in New Mexico
- Immigrant Student (NM HS GRAD)
- Military Dependent
- Military Spouse
- Military Stationed in New Mexico
- NM Competitive Scholarship
- Part-time Students - Out-of-State
- Senior Citizen Waiver
- Summer Session
- Texas 135
- Veteran Waiver
- Western Undergraduate Exchange
- WICHE

Reduced Tuition Rates for Senior Citizens

Senior citizens (persons aged sixty-five years or older) who are New Mexico residents are eligible for reduced tuition under the Senior Citizens Reduced Tuition Act. The cost will be $5.00 in tuition per semester credit up to 6 credit hours. If registered for more than 6 credits, they will be charged the tuition based upon residency for all registered credit hours. There may be additional required fees such as course or lab fees.

Contact Information

For more information, contact:

SENMC Accounts Receivable
Southeast New Mexico College
1500 University Drive
Carlsbad, New Mexico
Phone: (575) 234-9200
https://www.senmc.edu/business-office/index.html (https://www.senmc.edu/business-office/)

ACADEMIC REGULATIONS

Overview

Catalog Effective Period

Each annual catalog edition is effective Fall Semester through Summer Semester for an eight-year period. Curricular requirements (course requirements and number of credits required) for a specific degree or other designation may be met by completing all of the course requirements as set forth by the catalog in effect at first matriculation of a designated program, or any subsequent catalog, provided the selected catalog is considered active when the requirements for graduation are met. For all other matters, the current catalog is controlling. SENMC reserves the right to withdraw courses at any time, change fees, rules, calendar, curriculum, degree programs, degree requirements, graduation procedures, and any other requirements affecting students. Except as otherwise stated here, changes will become effective whenever approval by the proper authorities is enacted and will apply to both prospective students and those already enrolled. Once approval is received by the proper authorities, students enrolled in a program that is being withdrawn from the catalog will be provided with a provisional plan (teach-out). This will include, the reason the plan is required and their options to continue their studies in a timely fashion so they can plan for the future.

Academic Credit

The unit of credit is the semester hour, equivalent to one hour instruction and two hours practice per week. Semester and cumulative grade point average are based on the total quality points earned divided by the credit value of computable grades. The academic year is composed of three full terms: 16 week Fall and Spring semesters and a 10 week Summer session.

The Carnegie unit is used to measure traditional instructional contact time in post-secondary education. In this model, one credit hour is equivalent to 750 minutes of instructional time. By this ratio a standard three credit course requires 2250 minutes of instructional time to meet North Central Association (NCA) Higher Learning Commission (HLC) accreditation requirement.

At least an equivalent amount of work, is required for other academic activities as established by the institution, including laboratory work, internships, practicum, studio work, and other academic work leading to the award of Credit Hours.

Laboratory work, internships, practicum, studio work, and other academic work leading to the award of credit hours require at least an equivalent amount of work as in paragraph one of this definition. It is recommended

for laboratory courses or courses that contain laboratories, 2P is equal to 100 minutes of laboratory time for a 15 week term (1P is equal to 50 minutes). For example, a course consisting of 3-cr. (2+2P), is recommended to meet at least 100 minutes of lecture and 100 minutes of laboratory per week for 15 weeks.

Numbering of Courses

100– 299 and 1000- 2999 lower division level
Courses with a suffix of G meet New Mexico General Education requirements. Effective Fall 2020, upon completion of the total credits required by New Mexico Administrative Code, a transcript comment will indicate the student has fulfilled that obligation. Courses with a suffix of H indicate Honors. Courses with a suffix of N do not count in credits earned toward graduation.

Programs of Study

Credentials Offered

SENMC offers Associate Degrees of 60 or more semester credit hours and Certificates that are less than 60 credit hours. Students interested in transferring to SENMC or another four-year institution should check the appropriate sections of the college catalog for more information.

Certificates

Certificates include the Certificate of Achievement and the Certificate of Completion. Certificates may be awarded independently from any degree program.

Certificate of Achievement

The Certificate of Achievement is a program of study less than 16 credits and is not eligible for Federal financial aid. This Certificate provides employment related and/or career enhancing skills necessary to succeed in a job or a chosen field of study. These courses can be a subset of those required for a corresponding Certificate of Completion or Degree. These certificates are recorded on the student's transcript. The following requirements apply to all certificates of achievements:

1. Minimum Credit Hours: The number of credit hours varies from certificate to certificate but must be fewer than 16 credits. Students must successfully complete the total number of credit hours as outlined in the respective catalogs and sections describing these certificates.
2. GPA requirement: Students must successfully complete all courses for the certificate as outlined in the catalog and have a cumulative GPA of 2.0 or greater in all courses required for the certificate, but may have a cumulative GPA of less than 2.0 for courses taken outside of the certificate.
3. Residency: A minimum of 25% of the credits earned toward the certificate must be completed at SENMC. Number of credit hours required for residency for each certificate is listed in the requirements for that certificate. If the certificate requires fewer than 6 credits, all credits must be completed at SENMC.
4. Individual certificates may have additional requirements.

Certificate of Completion

The Certificate of Completion requires a minimum of 16 credits (other Title IV requirements must be met to be eligible for financial aid). These courses can be a subset of those required for a corresponding Applied Associates Degree. These certificates are recorded on the student's transcript. Requirements for individual certificates are found in the

respective catalogs and sections concerning these programs. The following requirements apply to all certificates.

1. Minimum Credit Hours: The number of credit hours varies from certificate to certificate. Students must successfully complete the total number of credit hours as outlined in the respective catalogs and sections describing these certificates.
2. GPA requirement: Students must successfully complete all courses for the certificate as outlined in the catalog. In addition, students must have a cumulative GPA of 2.0 or better in all courses taken at SENMC.
3. Residency: A minimum of 25% of the credits earned toward the certificate must be completed at SENMC. Number of credit hours required for residency for each certificate is listed in the requirements for that certificate. If the certificate requires fewer than 6 credits, all credits must be completed at SENMC.
4. Individual certificates may have additional requirements.

Degrees

Degrees include associate degrees and applied/technical degrees. Associate degrees include: Associate of Arts, Associate of Science, Associate of General Studies, other associate degrees that link to a specific major (the Associate of Education, for example). Applied/technical associate degrees include: Associate of Applied Science.

Associate Degrees

Specific requirements for individual associate degrees are found in the sections concerning those degrees. The following requirements apply to all associate degrees:

1. Minimum Credit Hours: a minimum of 60 credits (excluding "N" suffix courses). Some programs of study require coursework in excess of the 60 credit-hour minimum.
2. New Mexico General Education Curriculum: State mandated approved general education courses (as specified in the New Mexico General Education Curriculum section); such course are designated with a "G" with minimum of 31 credits required.
3. GPA requirement: Students must have a cumulative GPA of 2.0 or better in all courses taken in the program SENMC.
4. ENGL 1110G: Students must earn a C- or higher.
5. Residency: A minimum of 15 credits for the associate degree must be completed at SENMC.
6. Individual academic programs may have additional requirements.
7. Students interested in transferring to SENMC or another four-year institution should check the appropriate sections of the college catalog for more information.

Applied/Technical Associate Degrees

Specific requirements for individual applied/technical associate degrees are found in the sections concerning these degrees. These degrees typically prepare students for the workforce. The following requirements apply to all applied/technical associate degrees:

1. Minimum Credit Hours: a minimum of 60 credits (excluding "N" suffix courses). Some programs of study require coursework in excess of the 60 credit-hour minimum.
2. New Mexico General Education Curriculum: State mandated general approved education courses (as specified in General Education section); such course are designed with a "G" with of minimum of 15 credits required.

3. GPA requirement: Students must have a cumulative GPA of 2.0 or better in all courses taken at SENMC.
4. ENGL 1110G: Students must earn a C- or higher.
5. Residency: A minimum of 15 of the 60 credits for the applied/technical associate's degree must be completed at SENMC. Individual academic programs may have additional requirements.
6. Individual academic programs may have additional requirements.
7. Credits for these programs may or may not apply toward a four-year degree.
8. Students interested in transferring to SENMC or another four-year institution should check the appropriate sections of the college catalog for more information.

Application for Degree or Certificate

Upon completion of all requirements for degrees and certificates, students will not receive their credentials automatically. In order to receive the degree or certificate, a student must submit an application in the semester in which the student expects to graduate or complete the degree or certificate requirements. The deadline for all applications is specified in the academic calendar for each semester.

Students who will be completing two degrees or certificates in the same semester must apply for each credential separately.

Students who do not meet requirements or elect not to graduate after filing an application need to re-apply in a subsequent semester.

Dual/Second Degree

Associate degree seeking students who are interested in a dual degree should consult with their academic advisor. A student may earn multiple degrees, the two degrees must total at least 75 credit hours, and the second degree must include at least 15 hours of credits which are not applied to the first degree.

Degree Revocation

The Board of Trustees reserves the right to revoke a degree should it be determined upon investigation that the degree requirements were not properly met. A degree revocation must be in accordance with SENMC policy and related rules.

Honorary Degrees

Ceremonial Honorary Degrees may be awarded in accordance with SENMC policy and rules as set forth in SENMC Policy Manual and the related Administrative Rules and Procedures.

Registration

Registration at SENMC is a process that includes: (1) academic advising, (2) registering for classes, online or with your academic advisor, and (3) paying the tuition and fee bill.

Admission Requirement

No person will be will be allowed to register for courses until formally admitted to SENMC.

Class Schedule

Each semester, the Registrar's Office provides an online schedule of classes which can be accessed through my.SENMC.edu or the SENMC

website. Note that not all courses listed in the catalog are offered every semester.

College Credits

The unit of college credit is the semester hour, which is based upon one hour of lecture class or a minimum of two hours of practice/lab per week during one semester, and assumes a minimum of two hours additional, by the student, outside of class. The number of credits associated with each course is indicated in the course schedule.

Course Load for Students

The full-time course load in a regular semester (fall or spring) students is 12-18 credits. A full-time course load for a summer term is 9 credits with a maximum of 6 credits per session, totaling no more than 12 credit hours. Some scholarships have a 15 credit course load eligibility requirement. Each student is responsible for meeting their own scholarship eligibility requirements.

An overload is classified as more than 18 credits for a regular semester and more than 12 credits for the summer term. Registration for a course overload requires permission from the VPAA. Generally a student must have a 3.0 GPA in the previous semester to qualify for an overload. A "Change of Schedule" form is required and available on the Registrar's website.

Class Delivery

Classes at SENMC are delivered in a variety of modalities. Students may see any of the following schedule types when viewing the class schedule through my.SENMC (https://senmc-public.courseleaf.com/academic-regulations/registration/my.senmc.edu).edu (https://senmc-public.courseleaf.com/academic-regulations/registration/my.senmc.edu) or SENMC website (https://senmc-public.courseleaf.com/academic-regulations/registration/senmc.edu).

• Classroom Lecture: traditional in-person class meetings that occur on specified days and times in a specified location.

• Hybrid (Online + F2F): hybrid delivery that is offered both online and with required in-person class meetings that occur on specified days and times in a specified location.

• Hyflex (Online + F2F scheduled meeting time): hybrid delivery that is offered both online and with required in-person class meetings that occur on specified days and times in a specified location

• Hyflex Varied (Online, F2F, or synchronous online): hybrid delivery that is offered both online and with required in-person class meetings that occur on specified days and times in a specified location

• Lab: traditional in-person lab meetings that occur on specified days and times in a specified location.

• Fully Online (Online with no Synchronous Meeting): online class meetings that do not require students to meet virtually

• Independent Study: students and instructors schedule meetings on an as needed basis to discuss course content and student progress

• Practicum: practicum/clinical with implied meetings on an as needed basis to discuss course content and student progress

Prerequisites and Corequisites

Some courses require advance or concurrently acquired specific knowledge and skills. Prerequisite(s) and corequisite(s) for each courses are indicated in the course description section of this catalog. Students must have completed (or be presently enrolled in the prerequisite(s)) courses in order to register for a course with prerequisites. Where a student was allowed to register for a course while completing the prerequisite(s), and then subsequently fails to successfully complete a prerequisite course, the student shall be dis-enrolled from the course requiring the prerequisite. In the case of a corequisite, a student must enroll in the courses during the same semester. In some instances, where a course has an enforced "pre/corequisite" the student can elect to either take the requirement before registering for the course, or take the courses at the same time.

Registration Changes

Subject to any registration "holds" and any applicable deadlines, students may change their course registration online. Caution should be exercised as registration changes may negatively impact eligibility for scholarships, financial aid, the student's ability to progress through their degree program in a timely manner, and the student's obligations with respect to tuition and fees. The Registrar's Office publishes an online schedule of "Important Dates for Students" for each semester. The student is responsible for reviewing and adhering to the Important Dates, including the deadlines to add, unregister or drop (withdraw) from course(s) for the relevant semester.

Adding Courses:

There are two different types of deadlines for adding courses:

1. Last day to add a class without instructor's signature - during this period courses may be added online through my.SENMC.edu, or through your academic advisor (if necessary).
2. Last day to add a class with instructor's signature - during this period courses may only be added with either the "Change of Schedule" form signed by the instructor (available online on the Registrar's website).

* Students taking classes online and who do not live in the Carlsbad Area must email the instructor, using SENMC email, in order to get permission to be added to the course. If the instructor approves the addition, the approved response must be sent to either the student's academic advisor or to registrar@SENMC.edu with the student's name, ID number, course number, and section they are wanting to add.

Unregistering and Dropping (Withdrawing) from Courses:

There are two different types of deadlines for unregistering and dropping (withdrawing) from courses:

1. Last day to unregister without a "W" grade – during this period, the student can unregister the course and not have it appear on their official transcript in any form, and the student will have no financial obligation related to the course (students will receive a 100% refund if tuition has been paid for the course).
2. Last day to drop (withdraw) with a "W" grade – during this period, the student can drop (withdraw) from the course, but the course will appear on their official transcript with the withdrawal (W) designation as the grade, and the student will be responsible for the full tuition and fees related to that course.

Students are responsible for initiating official drop (withdrawal) from any course(s) they do not intend to complete. Students who experience extraordinary circumstances that prevent timely registration changes should consult with their Department Chair or the Registrar. For more information about the process for adding or dropping (withdrawing) from a course(s), please speak with your academic advisor or contact the Registrar's Office.

Any student attending under Veteran Educational Assistance must notify the Military and Veteran's Programs office before processing registration

changes to determine if changes will affect their enrollment status or benefits.

A student found insufficiently prepared for a course they are enrolled in may be transferred to a preparatory course in the same subject any day before the last day to drop (withdraw) from an individual course.

Repeating Courses for A Change in Grade

See the Grading portion of the Academic Regulations section of this catalog.

Substitutions and Waivers

Students registering for their final semester must have all course substitutions and waivers of required, for their degrees, courses approved before two weeks after the last date of registration for full or summer terms.

Auditing a Course (No Credit)

An audited course is one in which the student registers for the learning experience but does not seek to earn academic credit for the course. A student seeking to audit a course must register and pay tuition and fees for the course and have the consent of the instructor to take the class in audit form. A student who has registered to audit a course may be dis-enrolled from the course at any time before the registration deadline expires if necessary to accommodate a student taking the course for credit. After the last day to register, the student cannot change the course option from audit course to a for credit bearing course.

Audited courses are not used in determining a maximum class load (overload) for undergraduate students in good academic standing, however, the audited course will be counted as part of the maximum allowable course load for undergraduate students who are on academic probation.

Performance/Progress

Attendance and Student Performance

Academic success is closely correlated to student participation and attendance. Accordingly, students are expected to regularly attend all classes. Each course instructor will establish the specific attendance and course requirements. Only students who are currently enrolled in a course for either credit or audit are permitted to officially attend the classes. However, individual instructors may allow an occasional visitor and may allow a student who officially withdrew from the course to continue to attend for the remainder of the semester.

Absences from Class and Failure to Complete Assignments

Students who must miss class due to accident or illness, or due to other circumstances beyond their control should consult the course syllabus and the instructor for guidance. Students may be administratively dropped (withdrawn) from a course due to excessive absences or for persistent failure to complete assignments. In such cases, the Instructor may recommend administrative withdrawal by providing a completed "Student Absence/Lack of Progress Report" form to the Department Chair. If the Department Chair agrees with the recommendation of the course instructor, the student will be withdrawn from the course. Any student who has been administratively dropped (withdrawn) from a class may appeal that decision to the Department Chair

where the course was offered within 10 days after notification of the drop (withdrawal).

Any absences due to the student's requested participation in a college sponsored event (e.g., representing SENMC at legislative session or students attending educational field trips and conferences) will be excused and deemed an "Authorized Absence". Authorized absences do not relieve the student of the course assignments or responsibilities and instructors may require students to complete course work before the absence. Prior to the student's absence, the student will provide the instructor(s) with written notice of the dates of expected absence.

Classroom Conduct

Each instructor has the authority to establish and enforce reasonable rules of conduct in their courses. A student who engages in behavior that interferes with the educational environment of the class may be administratively dis-enrolled with the approval of the Department Chair for the course, and with notification to the Vice President of Academic Affairs. Any student who has been administratively dis-enrolled from a class may appeal that decision to the Department Chair where the course was offered within 10 days after notification of the dis-enrollment.

Student Performance Assessment

Individual student performance and learning outcomes in a course are measured and evaluated by the course instructor and reported to the student in the form of grades. Each instructor has the authority to establish assignments and other assessments (such as exams and quizzes) and to assign grades based on the student's performance on those assessments. Final grades for the course are determined by the instructor and reported to the Registrar as described in grading section of this catalog. Any student who believes that their academic performance has been evaluated unfairly may appeal the grade through the College's Academic Appeals process as provided in this Catalog.

Academic Program Assessment

Southeast New Mexico College is committed to providing its students with a quality education and a supportive learning environment. Academic Program Assessment is a continuous improvement process achieved by identifying a program's desired learning outcomes, evaluating the extent to which those outcomes are collectively achieved by students in the program, and then implementing changes to enhance and improve the collective program outcomes. For assessment to be effective, students must be actively aware of and engaged in assessment activities.

Academic Program Assessment requires participation of students who are expected to provide feedback on personal, professional and academic development and to participate in a variety of assessment exercises. Assessment activities may be a part of regular graded course assignments, or may require students to engage in other activities. Assessments may include course projects, exams, exit interviews, standardized tests, surveys, focus groups, etc. Data gathered through these assessments is published only in aggregate form. Learn more about SENMC's Academic Program Assessment in the Assessment Handbook (https://senmc-public.courseleaf.com/academic-regulations/performance-progress/senmc.edu/about-us/assessment.html).

Exam Week and Final Examinations

SENMC designates the last week of each semester as "Exam Week" during which each course has a single 2-hour meeting time for a mandatory culminating activity which may be a final examination or some other course related activity. The Registrar's Office establishes the Final Examination Schedule for each semester. Examinations are typically held in the course's usual lecture/lab room. For courses that were not scheduled to meet at the specific times listed under "Regular Class Time" on the Registrar's Office Final Examination Schedule, the instructor and course department coordinate examination dates, times and locations with SENMC's Registrar's Office (575) 234-9212. Final exams for weekend courses are held at the regular class period on the last day of class.

The final exam or culminating activity must not be rescheduled for a different date, time or location, except with permission of the department chair and the unanimous consent of the enrolled students. During the week before Exam Week, instructors are not allowed to hold examinations lasting more than one class period. Any student having more than three examinations scheduled in any one day may, no later than the week prior to exam week, notify the instructor of the examination scheduled latest in the day to obtain an alternative date for that examination. (If the fourth exam is a departmental exam, the instructor of the third exam will make alternate arrangements for that exam upon request.) Students who believe that their instructor(s) have not honored Exam Week requirements may appeal to the instructor's department chair.

Developmental Evaluation

The academic skill level of all entering first-time students at the time of registration is evaluated based upon ACT scores, SAT scores, ACCUPLACER scores, and/or alternative placement methods. The student's eligibility to enroll in college level English and Mathematics courses is dependent upon this evaluation. Students who have not demonstrated adequate preparation for college level courses are required to take developmental courses. Developmental courses are included on the transcript and will be included in the calculation of the GPA, but the developmental course credits do not count towards a degree.

Fresh start for former NMSU-Carlsbad students

Credits earned by SENMC students who were former NMSU-Carlsbad undergraduate students prior to Fall 2023 or dual credit students prior to Fall 2022 credits with a D- or higher will be entered as transfer credits under the institution name "Southeast New Mexico College formerly NMSU-Carlsbad". These credits will not be calculated in the student's GPA at SENMC and are designated with a letter (T) in front of the letter grade. Accepted transfer credits will be considered when financial aid satisfactory progress is reviewed.

Include in GPA Option

As a former NMSU-Carlsbad student, the student can request NMSU-Carlsbad courses completed prior to attending SENMC be calculated as a part of the SENMC overall cumulative GPA. These are the consequences of exercising the Include in GPA option:

1. All the student's academic history, including withdraw (W), incomplete (I), failure (F), audit (AU), or no credit (NC), as a NMSU-Carlsbad undergraduate student prior to Fall 2023 or a dual credit student before Fall 2022 will be included.

2. These courses will be included on the transcript with a grade and the letter (Y) in front of the letter grade to designated as "Included in the GPA" on the transcript. These credits will now be included in the calculation of the overall cumulative grade point average.

3. Accepted credits will be considered when financial aid satisfactory progress is reviewed.

Academic Forgiveness

Southeast New Mexico College recognizes that students may have terms in which they find themselves in a situation that is not optimal for their best academic performance. This academic forgiveness policy seeks to provide students with the means to recover from a challenging academic coursework by offering them the opportunity to ask for academic forgiveness for all or part of a previous terms (terms are in fall, spring, and summer). A student may need to exercise this option for several reasons. Past academic courses may have a negative effect on a student's ability to reach their academic goals. The student may find a program that is suited to their ability, but the previous coursework continues to affect their overall GPA.

Criteria:

1. Students will have the opportunity to retroactively remove all or part of their credit hours from their grade calculation in previous terms.
2. Only a grade of C+, C, C-, D+, D, D-, or F may be forgiven.
3. Academic Forgiveness can only be awarded once.
4. Forgiven courses will be shown on the transcript with a letter (X) in front of the letter grade. These grades will not be included in the grade calculation.
5. Eligible students must be in the process of earning their first associate degree.
6. The student must have completed at least 15 credit hours at a 2.0 or higher GPA after the terms to be forgiven to be eligible to make the request.
7. Students who leave the college and return are eligible to apply for academic forgiveness but must complete 15 credit hours at a 2.0 or higher GPA.
8. Students must be currently enrolled to make the request.
9. The student must make the request prior to graduation.
10. If the term(s) to be forgiven is the next#to#last term completed for the degree, the student must make the request prior to finals week of the final term, and degree conferral may be delayed.
11. Only SENMC credit can be forgiven.
12. If a student chooses to retake a course that has been forgiven, the forgiven course will count as a previous attempt.
13. Students still need to meet Satisfactory Academic Progress for financial aid purposes.
14. Courses in which the student has violated Academic Dishonesty policies will not be forgiven.

Procedure:

1. It is recommended that students first discuss the Academic Forgiveness request with their academic advisor.
2. If a student chooses to request academic forgiveness, the process is initiated in the Registrar's Office with the appropriate form.
3. The Registrar's Office will verify eligible classes and process the request.

Grading
College Grading System

Each course department or instructor establishes the system for assessing student performance in achieving course learning objectives. Students should consult the course syllabus for a description of the grading system used in each course. At the conclusion of each course, instructors are required to report a final grade reflecting the instructor's assessment of each student's performance. Shortly after the end of the term, students can access their grades through the m (https://senmc-public.courseleaf.com/academic-regulations/grading/my.senmc.edu)y.senmc.edu (https://senmc-public.courseleaf.com/academic-regulations/grading/my.senmc.edu) portal. No other grade notification will be issued. The final grade is reported on the student transcript. Instructors may elect whether to use fractional grading (the use of the plus and minus) in assigning final letter grades.

SENMC system for final grades is expressed in letters, which carry grade points that are used in calculating the cumulative grade-point average, as shown in this table:

Letter Grade	Grade Points per Unit of Credit
A+	4.0
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	2.0
D+, D, D-	1.0
F	0
W - Drop (Withdrawal)	0
N - Grade not submitted	0
CR - Credit authorized, but not letter grade	0
IP - In progress	0
S - Satisfactory work [1]	0
U - Unsatisfactory work	0
I - Incomplete work	0
AU - Audit	0

[1] S grades are grades that are satisfactory to the professor and are normally equivalent to the letter grade of C- or higher.
Any courses for which only CR or S is awarded, but no traditional letter grade is given, will be included in the total number of earned hours but is not computed in the grade-point average. Traditional letter grades are those which are used in the grade point average determination: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D- and F. In computing the overall grade-point-average, the total credits in which grades of A+ through F have been assigned is divided into the total number of grade points earned.

Early Performance Grades

Early Performance Grades (sometimes referred to as Midterm Grade) will be posted and available to students through the m (https://senmc-public.courseleaf.com/academic-regulations/grading/my.senmc.edu)y.senmc.edu (https://senmc-public.courseleaf.com/academic-regulations/grading/my.senmc.edu) portal. The purpose of the early grade posting is to ensure that students have an opportunity to address any performance issues. Students should be mindful that the Early Performance Grade (six-week for 16 week term, four-week for 8 week term) reflects a student's performance on only that portion of the total coursework that has been graded at that time. Any student who is doing poorly, or not as well as they would like, should meet with the instructor to discuss how they can improve. Students who have concerns about their progress in multiple courses or who are considering dropping (withdrawal) from course(s) must meet with their academic advisor. However, prior to the last day to drop (withdraw) from a course, upon request, instructors will provide information to students about their progress in the course.

Retention of Grading Records

Individual assignments and exams that are not returned to students should be retained by the instructor or department through the end of the subsequent regular semester. The records used to compute individual final grades should be retained for two years after the completion of a course. If a final grade is appealed, these records are kept for at least two years after the completion of the appeal. Departments or the library may require that records be kept for longer periods.

Minimum Grade Requirement

Degrees/Certificates require a cumulative GPA of 2.0 or higher for completion. Although D+, D, or D- can be considered passing, some programs have higher grade requirements for the courses within the program and/or the program as a whole. Students should check with their academic advisor regarding specific course grading requirements for their particular degree program.

S/U Grading

S/U grading allows the student to attempt to earn course credit without having a course grade included in their grade point average calculations. Under S/U grading, the instructor assigns an S grade for satisfactory achievement of the course learning objectives (normally equivalent to the letter grade of C- or higher) and a U grade for unsatisfactory performance in the class.

Designated S/U Courses

Each department may designate courses in which the grading will be on a basis of S or U for all students enrolled in the courses. Credits in designated S/U courses are not included in the limitations on the number of S/U credits a student may take, and are not subject to the student eligibility requirements described below.

Election of the S/U Grading Option

In courses other than those designated as S/U for all students, eligible individual students may elect the S/U Grading Option, subject to the regulations stated below. To be eligible for the S/U (satisfactory/unsatisfactory) Grading Option, students must meet the eligibility requirements and obtain approval of an academic advisor. Eligibility requires completion of 30 credits. Non-degree seeking students may take courses under the S/U option without regard to eligibility requirements. However, these courses may not be subsequently applied toward an undergraduate degree at SENMC.

The S/U option must be elected as part of the course registration and may not be added once the course registration period closes. Other than honors courses and courses officially designed as S/U, the following limitations apply to courses in which the S/U option is elected:

1. Students must have successfully completed 30 credits.
2. No more than 7 credits per semester or 4 credits per summer session.
3. Not to exceed a total of 15 credits towards a degree.
4. Not a required course for the student's major.

Students electing the S/U option should be mindful that upon a change of programs, the new program may require a traditional grade for a course within that program that was previously completed with an S grade. In such cases, the student may request that the original instructor process a change of grade form to apply a traditional grade, however, if more than 2 years have elapsed or if the instructor is no longer at SENMC, such a change will not be possible and the student may be required to retake the course or obtain a traditional grade through a course challenge.

I Grade Designation

The letter grade of I (incomplete) is given for passable work that could not be completed due to circumstances beyond the student's control that develop after the last day to drop (withdraw) from the course. In no case is an I grade to be used to avoid the assigning of grades for marginal or failing work. Examples of appropriate circumstances include documented illness, documented death or crisis in the student's immediate family, unexpected military deployment and similar circumstances. Other job related circumstances are generally not appropriate grounds for assigning an I grade. Students requesting an I grade are responsible for providing satisfactory evidence of such circumstances. (In the case of medical records, instructors should review the information provided, note that adequate medical documentation was provided for review, and return the documentation to the student. Under no circumstances should the instructor retain any medical records or indicate the specifics of any medical condition in the academic records.) The refusal to grant an I grade may be appealed in the same manner as any other final grade.

To assign an I grade, the instructor must complete the "I grade Information Form". The instructor must indicate on the form whether the student will be given the option to complete the remaining coursework and have the I grade changed to the earned letter grade. If so, the instructor should indicate the steps necessary to complete the remaining coursework. The I grade form should either be signed by the student in person, or the chair must send a copy of the document to the student's official permanent address, as recorded in the Registrar's Office, with a notation on the form that the student was not available for signature.

The student is entitled to have the I grade removed from the transcript only if, within 12 months or any earlier deadline established by the instructor on the "I Grade Information Form" and prior to graduation, the student completes the remaining coursework, as specified on the form, in a manner satisfactory to the instructor. If the student fails to complete the coursework, the grade will change to a failing grade after 12 months. To change the I grade, the instructor must complete a "Change of Grade Form," obtain the signature of the department chair for the course, and submit the form to the Registrar's Office.

W Grade Designation

The W grade is assigned only in courses when the student drops which is equal to a withdrawal or is administratively dis-enrolled from the course after the last day to unregister the course. The W grade is permanent.

Effect of Change of Grade

The effect of a change of grade on a student's academic standing (academic warning, probation or suspension) depends on the date the transaction is officially recorded on the student's academic record. If the transaction is recorded before the student begins another semester, the grade change (such as replacing the I grade with an earned grade) is included in the grade-point average calculation in order to establish the student's academic standing. If the transaction is recorded after the student begins another semester, for the purpose of calculating academic standing, the new grade is included with any other grades earned for the semester in which the grade change is processed.

Repeating Courses for a Change in Grade

Students may repeat courses, for a change in grade, when the original grade earned was a D or F. Once a grade of C- or better is earned, the course will then be substituted in the calculation of the grade-point-average and students will no longer be able to repeat that course for change of grade purposes. Student transcripts will continue to show the grade awarded for each course attempt. If the student's original grade was a D and he/she repeats the course, but receives an F, the second grade will not be substituted for the original.

Grade Point Average

Grade point average (GPA) calculations are based solely on courses taken at SENMC or for students who elect the Include Grade Option for courses taken as a former NMSU-Carlsbad student.

Drops (Withdrawals)

As part of transition to a new student information system (SIS) in which the configuration of that system changed how drops and withdrawal are defined. Prior to Fall 2023 the SIS system, Banner, defined drops as courses dropped before census day and withdrawals as courses dropped after census day. The new SIS system, Anthology defines courses that are dropped before census day as unregistered courses and courses dropped after census day as drops and a grade of a "W".

Drop (Withdrawal) from a Single Course

Any student wishing to formally drop (withdraw) from a single course, after the last day to drop has passed, can do so through their Academic Advisor or the Registrar's Office. All such drops (withdrawals) will be registered on the student's transcript with the "W" grade indication. For students wishing to drop (withdrawal) from all courses, please see the section on Drop (Withdrawal) from SENMC.

Administrative Drops (Withdrawals)

In the event that a student has stopped attending class without formally dropping (withdrawing), stopped using the online Learning Management System, or has a history of persistent unexcused absences or failures to complete assignments, the College reserves the right to remove the student from the class by means of an administrative drop (withdrawal). An administrative drop (withdrawal) may be requested under the following circumstances:

1. At the beginning of the semester, if a student misses the first two (2) class meetings or online activities.
2. At any point in the semester, if a student misses four (4) consecutive class meetings or online activities.
3. If over the course of the semester, the student persistently fails to attend class or fails to complete assignments.

In NO case is an administrative drop (withdrawal) used to avoid the assigning of D, F, or U grades for marginal or failing work. Administrative drops (withdrawals) are subject to the same refund rules as student

initiated drops (withdrawals) (100% refund prior to census and no refund after census.)

To request consideration for an administrative drop (withdrawal), the instructor must complete the Student Absence/Lack of Progress Report, found on the forms page of the Registrar's Office webpage, and route for approvals. The Registrar's Office is ultimately responsible for processing the administrative drop (withdrawal).

Upon receipt of a fully approved Student Absence/Lack of Progress Report, from the VPAA, the Registrar's staff will drop (withdraw) the student from the class and notify the student. This notification will be sent to the student's official SENMC email address. Students wishing to appeal the administrative drop (withdrawal), should reply to the Registrar's Office notification email, with a valid reason for non-attendance/non- completion of coursework, within 48 hours of the email delivery time stamp.

The Registrar's Office, in consultation with the class instructor, will determine if the appeal circumstances are reasonable and the student has not missed too much content to successfully complete the course. If so, the Registrar's staff will add the student back into the class and the student will be expected to actively participate in all future meetings and coursework. The Registrar's Office will notify the student, instructor, Department Chair and VPAA of the determination, via official SENMC email.

When an administrative drop (withdrawal) is initiated for a student who is representing the College at an official out-of-town event any administrative drops (withdrawals) will become effective upon the student's return from the event or five days after the drop slip fully approved form is submitted to the Registrar's Office.

Military Drop (Withdrawal)

Southeast New Mexico College understands that our military students may be called to active duty, specialized training, or disaster relief efforts with little notice. U.S. active duty military students wishing to drop (withdraw) from all their classes must present their orders and their request for full drop (withdrawal), as indicated below. However, the below policy does not pertain to a student's basic and/or annual training. A student who has an order for training is encouraged to formally request, through the proper military chain of command, a postponement of their orders until the summer or the end of the semester they are currently enrolled in. If a student's request for postponement is denied, the student may then follow the below steps but must provide documentation that their postponement request was formally denied.

All SENMC students that have been called up for active duty must take the following steps in order to drop (withdraw) from all their classes:

1. Military and Veterans Programs (MVP): TA/VA students ordered to Active Duty must provide a copy of orders to the Registrar's Office or by email registrar@senmc.edu. To assist in reporting accurate information to their military service or the VA Regional Office, student should also provide, in writing, last day of class attendance.
2. All students presenting their orders to the Registrar's Office, (575) 234-9416, or registrar@SENMC.edu, will be unregistered from classes and a full tuition and fees refund for that semester.
3. Bookstore: Students who still have their receipts for textbooks purchased the semester in which they are called to active duty will be given a full refund for these textbook purchases when they present their orders. Please contact the bookstore for assistance at (575) 234-9240.

Student Medical Drop (Withdrawal)

A student medical drop (withdrawal) applies to a student who becomes seriously ill, injured or hospitalized and is therefore unable to complete an academic term for which they are enrolled. This action applies to all courses a student is registered for in the affected semester(s). The student cannot select which courses they want to drop (withdraw) from and which they want to remain registered for when exercising this option. The students' attending physician must provide a letter, on official letterhead with an original signature, stating the date(s) within the semester that the student was under medical care and must drop (withdraw) because of that medical condition. This letter must be submitted within the semester or no later than one academic year after the end of the term for which the drop (withdrawal) is being requested. Once the information is reviewed a final determination will be made if the student is eligible for the consideration of tuition or other refunds (students receiving funds awarded by the Financial Aid Office should be aware of policies regarding drop (withdrawal) from the College. Medical drop (withdrawal) begins and ends at the Registrar's Office.

Medical Conditions of a Family Member Drop (Withdrawal)

A student who is dropping (withdrawing) because of a medical condition of an immediate family member must submit a letter from the family member's attending physician. This action applies to all courses a student is registered for in the affected semester(s). The student cannot select which courses they want to drop (withdraw) from and which they want to remain registered for when exercising this option. It must be on official letterhead with an original signature, stating the date(s) within the semester that the student's immediate family member was under medical care and that the student must drop (withdraw) to attend to the immediate family member's medical condition. This letter must be submitted within the semester or no later than one academic year at the end of the term for which the drop (withdrawal) is being requested. Immediate family member, in this instance, includes a spouse; a domestic partner; a child, parent or legal guardian; a sister or brother and a grandparents or a grandchild. Familial relationships that are created by law are also included (i.e., mother/father-in-law; half or step siblings); any other relationships can be considered on a case-by-case basis. Once the information is reviewed a final determination will be made if the student is eligible for consideration of tuition or other refunds (Students receiving funds awarded by the Financial Aid Office should be aware of policies regarding drop (withdrawal) from the College.)

Drop (Withdrawal) from SENMC

Drop (Withdrawal) from SENMC is an official procedure that must be:

1. Initiated by the student (using the drop (Withdrawal) form)
2. Have all necessary signatures (as indicated on the form)
3. Be approved and processed through the Registrar's Office, located on the Campus

Students who drop (withdraw) from all courses for the semester should do so in person through the Registrar's Office. However, students who are unable to come in person may submit an e-mail using their SENMC e-mail account to registrar@SENMC.edu. Students who leave without following the official procedure are graded appropriately by the instructor.

Applicable dates for the last day to drop (withdrawal) are published on the approved academic calendar or under important dates (https://senmc.edu/academics/important-dates-for-students.html).

A student who drops (withdraws) from all classes for the semester will retain access to their SENMC account per current policy but will lose access to other services and privileges available to enrolled students.

Financial information concerning drops and withdrawals can be found at https://www.senmc.edu/business-office/withdrawals.html. Financial aid recipients should contact the Financial Aid Office before dropping (withdrawing). Students receiving funds awarded by the Financial Aid Office should be aware of policies regarding drop (withdrawal) from the College.

The Federal Higher Education Act requires the College to calculate a Return of Federal Student Aid Funds see Return of Title IV under Student Regulations.

Graduation/Commencement

Graduation Requirements

For specific graduation requirements for any degree offered at SENMC please see the Degrees, Majors, Minors and Other Academic Programs of Study section, as well as the departmental sections for those requirements. These requirements will include the minimum GPA, total credits and specific course requirements for graduation.

Applying for a Degree

Any students that are in their final semester of classes are considered degree candidates and are required to submit a "Graduation Application". The application for Degree form is available online through the SENMC website. It must be completed and submitted by the designated deadline for that semester. The latest date for substitution or waiver of required courses for degree candidates is two weeks after the last date of registration for all terms.

Attendance at the Commencement Ceremony

Commencement is a symbolic ceremony, that students can elect to participate in after they have applied for their degree. Participation in commencement does not, in itself, mean that a student is considered an SENMC graduate. In order to be awarded a degree, a student must fulfill college requirements as determined by academic department. The degree will reflect the graduation date from the application for degree in which all degree requirements were determined by the academic colleges. The department will confirm students' eligibility to participate in the commencement ceremony that is held at the end of the spring semester.

Diploma

All fees and bills owed the college must be paid in full before a student may receive a diploma or official transcripts. The degree title and degree type will be printed on the diplomas, in accordance to the degree awarded. Academic honors will also be printed on the diplomas below the degree. The name on the diploma will reflect the name on the Graduation Application. Diplomas will be mailed to graduates approximately eight weeks after final grades have been processed and the Registrar's Office certifies the degree requirements were met. The diploma will be mailed to the address specified on the graduation application, unless an address change was requested before the last day of the semester.

Credit for Prior Learning

Credit for Prior Learning is special credit earned through American Council of Education (ACE), ACT, Advanced Placement (AP) Examinations, CLEP, Credit by Examination, Dantes DSST Exams, Independent Study, Directed Study, Military Service Credit, and Prior Learning Assessment.

NOTE: Students submitting credit for prior learning must keep in mind the Maximum Time Frame policy. See Financial Aid Section.

Advanced Placement

SENMC awards credit for advancement placement exams according to the NM Advanced Placement Policy (NMAC 5.55.8).

College Level Examination Program (CLEP)

SENMC accepts the College Level Examination Program of the college Entrance Examination Board.

Up to 6 credit hours in each of the five CLEP

Credit by Examination

Any enrolled student with a cumulative GPA of at least 2.0 currently attending classes may, with permission of the appropriate department, challenge by examination any undergraduate course in which credit has not been previously earned except an independent study, research or reading course, or any foreign language course that precedes the final course in the lower-division sequence. The manner of administering the examination and granting permission shall be determined by the department in which the course is being challenged.

1. Students may not enroll in a single course, challenge it by examination, and drop it during the drop/add period, unless they enroll in an additional course.
2. A student desiring to apply for special examination may obtain the necessary forms from the Registrar's Office.
3. The fee for challenging a course is the same as the approved tuition rate.
4. Courses may not be challenged under the S/U option.

Directed Study

A Directed Study course is a permanent catalog course delivered on an individual basis when the course is not offered that term or has low enrollment. Directed studies are approved under extenuating circumstances to provide an opportunity to complete a required course.

1. Directed studies must be approved by the department chair and instructor of the course.
2. Directed study courses will appear on the student's transcript with the specific course title.
3. There can be no change in the basic content of the course. The subject code, description, title, grading policy, credits, and course content cannot differ from the permanent course.
4. Registration after published drop/add dates is not permitted.
5. A student desiring to apply for Directed Study may obtain the necessary forms from the Registrar's Office.

Independent Study

Independent study provides enrolled students who are capable of and sufficiently motivated to undertake an independent study course in areas not covered by class offering, with limited oversight of a faculty member. Only students with 15 credit hours earned with a 2.0 cumulative GPA are

eligible to enroll in independent study courses. No student is entitled to enroll in independent study and enrollment requires the consent of an instructor who agrees to supervise and evaluate the student's learning activities in the course.

1. The topic and outline must be agreed upon by the student with the approval of the instructor and the department chair.
2. Independent study course will appear on the students transcript.
3. Independent study course may not be taken instead of, or to modify a regular course offering.
4. Registration after published drop/add dates is not permitted.
5. A student desiring to apply for special examination may obtain the necessary forms from the Registrar's Office.

Military Service Credit

Southeast New Mexico College will award academic credit to United States military personnel for courses and Military Occupational Specialties (MOS), based on the American Council of Education Guide (ACE) as well as through national standardized tests such as CLEP, AP, PEP and DANTES. Military Training and Military Occupational Specialties (MOS) must have a recommendation evaluation by ACE (in the ACE Guide) for credit to be awarded. Courses accepted for transfer credit become part of the student's official SENMC transcript and academic record. If a student wishes to appeal a decision regarding the acceptance of military training/ education and/or MOS for academic credit, the student must submit a written statement of appeal to the Registrar's Office. The Registrar will review with the department chair the merits of the appeal and render a decision. The decision of the Department Chair is final. Only Primary MOS (s) are eligible for academic credit in the initial review and evaluation. Credit for Duty and/or Secondary MOS may be eligible for academic credit if the student petitions the college's Registrar's Office. Primary MOS is the primary specialty of a soldier and reflects the broadest and most in-depth scope of military experience. Veterans, active-duty personnel, National Guard, and Reservists who are current students or students applying for admission to Southeast New Mexico College may be granted academic credit on a case-by-case basis upon evaluation of military transcripts - the Joint Service Transcript (jst.doded.mil) and the Community College of the Air Force transcripts. Course equivalencies and credit hours awarded for a particular SENMC degree are determined by Department Chair for that program. Credit hours may be awarded for specific courses toward degree requirement, or as elective credit. The number of credit hours awarded will be determined by the Registrar and Department Chair for the program.

Prior Learning Assessment

Prior Learning Assessment (PLA) allows students to receive college level credit as evidenced by state and national industry licenses, certifications and recognized for-credit-exams. SENMC will evaluate evidence of learning and award academic credit towards a certificate or an associate degree program.

1. Students who are admitted to the college and are enrolled in a certificate or degree program are eligible to participate in PLA
2. A student can earl PLA credit for multiple classes if they have relevant industry credentials, experience, or knowledge.
3. Students who have PLA credit must still meet the 15 credit hour requirement for residency at SENMC. Credits earned through prior learning assessment are *never* considered part of this requirement.
4. A student desiring to apply for PLA may obtain the necessary forms from the Registrar's Office.

5. Program specific crosswalks are developed and implemented when appropriate.
6. PLA assessment will be reviewed and approved by a subject matter expert (SME).

Academic Standing/Probation
Academic Standing

When a student does not maintain adequate academic standing, he/she/they are placed in Academic Warning. If the student's academic standing does not improve, the placement progresses to Academic Probation I. Continued unimproved academic standing moves a student into Academic Probation II, then finally, Academic Suspension. Each stage imposes more structure and limitations on the student in order to help them return to normal academic standing. The intent is not to punish, but to help the student return to normal academic standing and success. Since some of these limitations involve limitations on the number of credit hours, students on Probation or Suspension may be subject to loss of financial aid. It is the responsibility of the student to determine the impact of their changed academic standing on their financial aid. Notification to students of academic warning, probation, or suspension appears on the student's grade report at the end of each grading period.

Academic Warning

Issued only once, the first time a student's cumulative GPA falls below a 2.0 while in good academic standing. The Registrar's Office will send the student a notification detailing the consequences should the cumulative grade point remain below a 2.0 at the conclusion of the semester. A student on Academic Warning remains eligible for all extracurricular activities as governed by the rules of the specific activity. While under Academic Warning the following restrictions apply:
1. The student cannot enroll in more than 15 hours of coursework during the semester.
2. The student may be required to enroll in a 3-credit hour special study skills/time management course specifically designed for students on Academic Warning, or an equivalent course approved by the appropriate department chair or VPAA.
3. Students may be required to enter into a contract with their advisor, approved by their department head that places further stipulations on Academic Warning. The contract may include, but is not limited to the following:
• The student may be required to take at least one repeat course to try to improve their GPA.
• Except for the special study skills/time management course, the student's coursework may be restricted to their major.
• The student may be required to get tutoring help.
• The student may be required to see an academic counselor on a specified time schedule.
• The number of credit hours a student may register for may be restricted (due to extenuating circumstances such as the student's workload commitments).
The department chair or VPAA may place the student on Academic Probation I should the student not adhere to the stipulations of the contract.
If the student's semester GPA is less than a 2.0, and the cumulative GPA remains below a 2.0 at the end of the semester on Academic Warning, the student is placed on Academic Probation I. If the semester GPA is greater than 2.0 but the cumulative GPA is still less than 2.0, the student will remain on Academic Warning. If the cumulative GPA is greater than a 2.0

at the end of the semester then the student is returned to good academic standing.

Academic Probation I

This occurs when a student under Academic Warning has a semester GPA less than 2.0, and the cumulative GPA remains below 2.0 at the conclusion of the semester or if the student maintains a semester GPA greater than 2.0 while on Academic Probation I but the cumulative GPA is still less than 2.0. Academic Probation I will also occur if a student falls below a 2.0 cumulative GPA from Good Academic Standing if Academic Warning already occurred in a previous term.

Under Academic Probation I the following conditions apply:

1. The student cannot enroll in more than 13 hours of coursework during the semester. Note: Students falling below 12 credits in any one semester will jeopardize their financial aid. Should this occur, students should see the department chair in their college as soon as possible to try to implement corrective measures.
2. The student may enter into a contract or individualized education plan with their advisor and approved by the department chair or VPAA that place further stipulations on Academic Probation I. The department chair or VPAA may place the student on Academic Probation II or Academic Suspension should the student not adhere to the stipulations of the contract.
3. Students on Academic Probation receiving educational benefits from the Veterans' Administration must obtain counseling from the Military & Veterans Programs Office.
4. Students admitted under special provisions whose transcripts indicate less than a 2.0 GPA are admitted on Academic Probation I.

The student must maintain a semester GPA equal to or greater than 2.0 until such time that the cumulative GPA is greater than 2.0 at which time the student goes back to good academic standing. Until the transition happens the student remains on Academic Probation I. The student will be placed on Academic Probation II if he/she is unable to maintain a semester GPA, and the cumulative remains below a 2.0 GPA, while under Academic Probation I. A student on Academic Probation I remains eligible for all extracurricular activities as governed by the rules of the specific activity.

Academic Probation II

Academic Probation II is issued in two ways.

• The first is when a student falls below a semester 2.0 GPA and the cumulative GPA remains below a 2.0 while on Academic Probation I.
• The second is when a student maintains a semester GPA greater than 2.0 while on Academic Probation II but the cumulative GPA is still less than 2.0.

The following restrictions are in place for students in Academic Probation II:

1. The student cannot enroll in more than 7 credit hours of coursework during the semester.
2. As with rule 2 under Academic Warning and Academic Probation I and at the discretion of the department chair or VPAA, the student will be required to enter into a contract with their advisor, approved by the department chair or VPAA, to place further stipulations on Academic Probation II

The department chair or VPAA may place the student on Academic Suspension should the student not adhere to the stipulations of the contract.

The student must maintain a semester 2.0 GPA or higher until the cumulative GPA reaches a 2.0 or higher at which time they are placed

on good academic standing. A student unable to maintain a semester GPA of 2.0 or higher, and the cumulative remains below 2.0 GPA, while under Probation II will be placed on Academic Suspension. A student on Academic Probation II remains eligible for all extracurricular activities as governed by the rules of the specific activity.

Continuing in Probationary Status

Students may continue to enroll while on Academic Probation I or II provided they maintain a semester GPA of 2.0 or higher. If they withdraw from the college while on Academic Probation, they continue on that same level of Academic Probation.

Removal of Academic Probation

Such academic standing is removed when the cumulative GPA is raised to 2.0 or higher, with the following exceptions:
1. a transfer student may not remove probation by summer work alone;
2. if an I grade is removed after the student has enrolled, the new grade's effect on academic standing is based on its inclusion with grades for the term for which the student is enrolled;
3. exercise of the Adjusted Credit Option does not change academic status until subsequent grades are earned.

Academic Suspension

When a student does not achieve a semester 2.0 GPA or higher, and the cumulative remains below a 2.0 while under Academic Probation II, they are placed on Academic Suspension. Students under Academic Suspension are not allowed to take SENMC courses while under suspension. Students on Academic Suspension must sit out a minimum of 1 semester and apply for re-admission.

Under certain conditions, a student may be re-admitted at SENMC under regular status while under Academic Suspension when satisfactory progress has been demonstrated at another college or college (see Readmission- Degree Seeking). Credits earned at another college while under Academic Suspension from SENMC or another college will be accepted at SENMC only after the student demonstrates satisfactory progress over a period of two semesters after being re-admitted or admitted to SENMC. Acceptance of transfer credits that count toward degree requirements is still governed by the rules established by the student's respective department.

Summer Attendance Impact on Academic Standing

A student may use summer classes to try to get warning or probationary status removed. Students suspended at the close of the spring semester may have their Academic Suspension rescinded if they attend summer session. Such attendance must raise the combined spring semester and summer GPA to 2.0 or better. Under no circumstances may a student on Academic Warning or Academic Probation be allowed to register for an overload. The current academic status is continued if the student withdraws from the college and the probation or suspension status applies to all subsequent enrollments until the cumulative GPA is 2.0 or higher.

Academic Misconduct/Grievances

Student Academic Code of Conduct

The Academic Code of Conduct (https://senmc.edu/documents/senmc-student-handbook-23-24-ay.pdf), applicable to all undergraduate students, provides procedures for the review and resolution of alleged or suspected academic misconduct within a reasonably prompt time frame. Academic Code of Conduct is located in the Student Handbook

(https://senmc.edu/documents/senmc-student-handbook.pdf) and/
or the Faculty Handbook (https://senmc.edu/faculty-and-staff/files/
senmcfacultyhandbook__2023_.pdf).

While it is important to refer to the detailed governing rules in
the Academic Code of Conduct, the process is summarized as follows:
campus-wide Academic Conduct Officer is responsible for processing
each case of alleged academic misconduct. The accused student is
provided notice of the allegation and has the right to participate during
the fact finding process.

The student may contest the investigative findings or sanction before
a neutral third party hearing panel member. Either party to the matter
has the right to a final appeal of the findings or a Level II sanction to the
VPAA.

The Academic Conduct Officer distinguishes between Level I Sanctions
and Level II sanctions, depending upon the severity of the offense and
other factors. The Level 1 sanction includes a formal warning. Level
II sanctions may include a notation of academic misconduct on the
student's academic transcript.

The full policy, examples of academic misconduct, report form and a
flowchart of the procedures for resolving alleged student academic
misconduct is available at:

Policies
Student Academic Code Conduct (https://senmc.edu/documents/
policies-and-handbooks/senmc_student_academic_code_of_-conduct-
_8-7-23.pdf)

Student Records

Privacy Rights

The following information has been designated as directory information
and is subject to release to the public under the Buckley Amendment
(PL 98-380), "The Family Educational Rights and Privacy Act of 1974."
student's name, class level, college and major, dates of attendance,
degree(s) earned, honors and awards, address, telephone number, SENMC
email address, Student ID number, most recent previous educational
institution attended, and some information about students involved in
recognized activities.

Other information regarding disclosure of student data is posted on the
Registrar's website and in the Registrar's Office, in compliance with the
Act.

Requests for withholding directory information must be filed in writing
with the Registrar's Office. A student may choose to hide his/her
address and phone number from the campus phonebook through the
my.SENMC.edu (https://senmc-public.courseleaf.com/academic-
regulations/student-records/my.senmc.edu) portal. This will only hide
the information from the public, but the records will still be officially kept
within the Registrar's Office.

Social Security Numbers in Student Records

As required by law, social security numbers are collected from
prospective and current students who are either applying for admission
to the college or plan to seek employment on campus. The social security
number is a confidential record and is maintained as such by the college
in accordance with the Family Educational Rights and Privacy Act.

In addition, the college is mandated by federal tax regulations to provide
tuition and fee payment information to the student and the Internal
Revenue Service so that applicable educational tax credits may be
computed. The social security number is required for tax reporting
purposes.

Change in Demographic Information

Students wishing to make a legal name change, citizenship change,
social security number update or a gender update can do so through
the Registrar's Office. All students will need to fill out the "Demographic
Change form" located at (link) and provide a current signed Social
Security card and one of the following documents:

1. Government Issued ID (driver's license, state card or valid passport), a
Birth Certificate, a Court Order, a Marriage Certificate/Divorce Decree or a
Certificate of Naturalization/I551 Card.
2. Citizenship change: Certificate of Naturalization or I551 card.

Students may update their "preferred name", which is the name used in
lieu of a student's legal name, on certain documents, such as, the email
display name, learning management system, the phonebook, class
rosters and advisee lists. This can be done by the student through
the my.SENMC.edu (https://senmc-public.courseleaf.com/academic-
regulations/student-records/my.senmc.edu) portal and does not need
to be done at the Registrar's Office. For more information about the
specific documents that are needed please contact the Registrar's at
(575) 234-9416.

Changes in Residency Status for Tuition Purposes

The Registrar's Office does not determine the laws and rulings for
determining Residency, these are state laws that the Registrar's Office
simply administers. An individual must establish legal residency in New
Mexico before he or she is entitled to pay in-state tuition rates. The
student's initial residency status is determined at the time of admission,
any changes to this status must be initiated by the student through the
Registrar's Office. A continuing student, classified as a non-resident,
who has satisfied the requirements to establish residency may submit
a Petition for In-State Residency Tuition Classification along with the
required supporting documentation to the Registrar's Office. Petitions
must be filed on or before the third Friday of the semester for which the
student is requesting resident tuition. For specific information about the
process of petitioning for In-State Residency or for information about
who is eligible for residency for tuition purposes please visit the https://
senmc.edu/registrar/index.html (https://senmc.edu/registrar/) or the
Registrar's Office.

Official Transcripts

An official transcript is the College's certified statement of your complete
SENMC academic record in chronological order by semester and year.
It includes the student's coursework, grades and any degrees that were
awarded. Any credit hours earned through transfer work are listed as the
equivalent course at SENMC. Grades are not transferred, nor are they
used to calculate the SENMC grade point averages. Official transcripts
will not be released if the student is in debt to the college. Transcripts can
either be ordered in person at the Registrar's or complete the Transcript
Request (https://senmc.edu/documents/transcript-form.pdf) form. A
student can request two types of transcripts an electronic one, which is
sent as a secured PDF or a printed hard copy that can be delivered in a
sealed envelope. The name that will appear on the student's transcript
will match the name on the student's official SENMC record.

Purging of Student Files

All academic files for students who attend SENMC are kept for five (5) years following the student's final term enrolled. Only archival documentation will be retained. The files of students who do not enroll within one year after being admitted are destroyed.

ACADEMIC SUPPORT SERVICES, CAMPUS RESOURCES, STUDENT ACTIVITES

Adult Education and GED® Preparation

The Adult Education (A E) Division offers adults the opportunity to begin and/or complete a basic education through the twelfth grade. A E also provides a variety of educational programs and students support services that can help individuals achieve their goals and transition to college. A complete education improves one's opportunity for obtaining or retaining employment and/or going to college and can provide a person with a sense of accomplishment. A E instructional programs and classes include basic literacy, English as a second language (at various levels), EL/Civics, GED®/HiSET (high school equivalency diploma), college preparation, U.S. citizenship, computer literacy and work readiness. Practical living skills, employment and training and student success principles are also emphasized throughout the A E curriculum. Student support services include basic skills assessments, student orientations, self-paced studies, advising and referral services, student success skills, tutoring on an individual and small-group basis and assistance with college transition. For more information about the A E programs, visit us at the A E Office at Southeast New Mexico College; room 207; call (575) 234-9250 or email us at mmcormack@senmc.edu (mccormack@senmc.edu); or MSoto@senmc.edu (msoto@senmc.edu).

Advising
Academic Advising

Academic advisors help students establish academic and career goals, transition to college, interpret placement test scores, select and schedule classes, explore majors, develop a graduation plan and evaluate progress towards completion. Students are encouraged to meet with their advisor each semester.

Student Accessibility Services

Students Accessibility Services (SAS) coordinates university efforts to provide access and opportunity to students with disabilities, including students who have disabilities that are apparent and non-apparent.

Students wanting to learn more about the services or accommodations should contact the SAS Coordinator in the Learning Assistance Center, Room 253. Advanced notice in planning services is strongly encouraged. SENMC is committed to providing an accessible institution to all individuals. Accommodations can be requested by completing these steps:

Accommodations can be requested by completing these steps:

1. Make an appointment with the SAS Coordinator to self-identify as a student with a disability.
2. Submit a Petition for Accommodation and proper documentation to the SAS Coordinator.
3. Finalize accommodations for the semester with the SAS Coordinator.
4. Take faculty notification letters listing approved accommodations to each instructor and return to the SAS Coordinator within five working days. For online courses, the SAS Coordinator will email notification letters directly to the faculty.

Grievance Procedure for Students with Disabilities

SENMC has adopted an internal grievance procedure providing for the prompt and equitable resolution of complaints alleging any action prohibited by Section 504 of the Rehabilitation Act of 1973 of the Americans with Disabilities Act of 1990 (ADA), which prohibit discrimination on the basis of disability.

Students are encouraged to seek an information resolution of their concern directly with the faculty or individual(s) involved when possible. For matters where a resolution is not feasible, an SENMC Student Complaint Form (https://forms.office.com/r/7ukdg5ePQM/) available on the SENMC website must be completed and will be reviewed by the Vice President for Student Services and forwarded to the appropriate administrative official based on the subject matter.

For further information, contact the Student Accessibility Services Coordinator or the Vice President for Student Services.

Apprenticeship Program

The Manufacturing Sector Development Program (MSDP), in conjunction with local employers, offers apprenticeships to current students. The objective of the Apprentice Program is to train individuals in the field of Industrial Maintenance Electrical in all phases of the industry through a well-developed, on-the-job and instructional program.

Recognizing the need for skilled construction craftsmen in Eddy, Chaves, and Lea Counties, the Carlsbad Community Development Corporation established the Multi-trade Apprenticeship Standards to be used by all of its members, including contractors, manufacturers and businesses that utilize people in occupations that can be learned through apprenticeship and wish to employ apprentices. For additional information contact the MSDP Department at Southeast New Mexico College, room 227B or call (575) 234-9271.

Bookstore

The SENMC Bookstore, located in the main building, is open not only for the campus, but to the surrounding communities of Carlsbad, Loving and Artesia. The bookstore offers a wide variety of fresh, quick snacks and lunch items. For students who need supplies, including flash drives, calculators and planners, the bookstore is well stocked. Campus bookstores always have the best spirit clothing, drinkware and gifts, and SENMC Bookstore is the only store that features SENMC logo items. SENMC Customers who prefer to place orders over the phone, may also take advantage of curb pick up.

For the first time on this campus, the SENMC Bookstore is pleased to welcome the community to our General Reading department. The Bookstore offers, not only best sellers, but new releases which are updated weekly. The Children's section features Caldecott and Newberry award winners and grade specific workbooks. For students needing test preps and Study Aid, the SENMC Bookstore is the place to shop. If bookstore customers need to place a special order, please take advantage of our free special order services.

All textbooks that have been adopted for classes are available online through SENMC Bookstore (https://bookstore.senmc.edu/home/). Textbooks ordered online, requesting store pick up, will be available at the SENMC Bookstore for student convenience.

Career and Job Placement Services

Student Services offers various resources to help students evaluate and choose potential career options including Choices, a web-based career guidance software program and various workshops. We provide assistance with general job search strategies and guidance regarding how to write effective cover letters and resumes. Student Services coordinates work-study positions for eligible students as well as cooperative and internship opportunities.

Citizen's Professional Advisory Councils

The Citizen's Professional Advisory Councils "CPAC" represents individual community stakeholder groups primarily aligned with workforce and academic instructional areas of the college. CPAC gives community stakeholders a chance to influence the college's role in the community and communicate the needs of individual organizations and business as they relate to the college. Advisory Councils are comprised of local employers and organizational representatives and involve valued constituencies in SENMC planning for the educational needs of its students. Again, CPAC events allow the college and its community stakeholders to gather together to communicate external stakeholder wants and needs. CPAC members come from the business community, public education, law enforcement, research laboratories, government agencies, private industry, media, etc. CPAC events occur twice a year and includes dinner, breakout sessions, focus groups, etc.

Community Education

SENMC Community Education offers lifelong learning to individuals of all ages seeking educational options for the purpose of personal enrichment and self-improvement. Personal enrichment courses offered are in topics such as art, music, cooking, pottery, computer skills, yoga and welding. Course instructors include retired professionals, SENMC faculty, and business owners. The courses are affordable and can be taken in several

hours to several weeks on our campus. Additionally, taking classes with SENMC Community Education allows the student to meet other people with the interest or hobby they would like to pass on. If someone is interested in teaching a class with Community Education, that person should call (575) 234-9268 or visit the Community Education Office on campus in Office 1B.

Developmental Programs and Services

The mission of the Developmental Education Program at SENMC is to help students cultivate the knowledge, skills and attitudes necessary for success in college-level curriculum by providing quality instruction and academic support that encourages students to be active participants in the learning process.

New students are placed into developmental education courses based on their ACT and/or Accuplacer placement testing scores. The course placement level is determined based on system wide standardized "cut-off" scores. The university strongly recommends that all required developmental education coursework be started during the first year of enrollment.

Students must pass all developmental coursework with a grade of "C" or higher, in order to move on to the next course in the sequence. Students who earn less than a "C" in a course will be required to repeat that course and must obtain the required minimum grade before moving to the next course in the sequence. Please note that credit earned in developmental coursework is not applied toward any degree or certificate at SENMC, but completion of developmental coursework may be a requirement for any degree or certificate. Credit for developmental coursework is included in the credit calculations for financial aid. Most developmental courses are offered for 4 credits, which includes 3 credits of instruction and 1 credit of laboratory time to practice skills taught during instruction. A variety of course instructional formats may be offered. Please refer to the semester course schedule or visit the LAC for more information regarding specifics for each course section.

Code	Title	Hours
Developmental Reading Courses		
CCDR 105 N	Fundamentals of Academic Reading	3
CCDS 109 N	Study Skills for Reading	1-3
CCDR 110 N	Effective College Reading	3
Developmental English Courses		
CCDE 105 N	Effective Communication Skills	4
CCDS 113 N	Study Skills for English	1-3
Developmental Math Courses		
CCDM 105 N	Mathematics Preparation and Pre-Algebra	5
CCDM 114 N	Algebra Skills	4
Tutorial/Skills Courses		
FYEX 1131	Personal Learning Skills I [1]	1-3
FYEX 1996	Topics in First Year Experience	2
Approved FYEX Elective		1
College Level English Courses		
ENGL 1110G	Composition I [2]	4
College Level Math Courses		
MATH 1134	Fundamentals of Elementary Mathematics I	3
MATH 1130G	Survey of Mathematics	3

MATH 1215	Intermediate Algebra	3
MATH 1220G	College Algebra	3
Approved MATH Elective		3

1

Requires the student to design a curriculum of study to meet individualized learning goals. Graded on an S/U scale, based on the number of hours completed and amount of progress made during the semester. Students must contact the Tutor Coordinator in the LAC prior to the start of the semester to receive additional information and sign a contract agreement that stipulates the number of required hours and dictates the curriculum to be followed. This course may be repeated in subsequent semesters for a maximum of 3 credits.

2

This course is required for all degree programs. This course should be taken only by those who either initially "placed" into the course (by placement testing) or by those concurrently enrolled in CCDS 113 N Study Skills for English.

Developmental Courses and Course Sequence

Before students enroll for any college level course listed above, they should have satisfied the following requirements:

1. have taken and passed any stated prerequisite course with a grade of "C" or better, or
2. have taken the placement examination earlier, the result of which must affirm a student's placement at a college course level.

Courses beyond the developmental level may or may not be degree required (check the degree plan first).

Learning Assistance Center

The Learning Assistance Center (LAC) provides instructional support for students at SENMC. The goals of the LAC include tutoring students for a wide variety of developmental and college level courses, helping students improve their study and learning skills, and connecting students to the network of support available at the university and within the community.

The LAC oversees the following:

Services:

- Individual and Group Tutoring: Scheduled academic course assistance by qualified tutors for a wide variety of courses. Visit the LAC for more information. Math tutoring is available for all CCDM and MATH courses through MATH 1220G College Algebra .
  - Learning and Study Skills: Assistance with a variety of needs from learning style assessment to time management. Visit the LAC for more information.
  - Test Prep: Tutoring, books and online preparation for Accuplacer, ACT and HESI.

All services are offered free of charge to qualified SENMC students. Courses are offered for credit and adhere to the tuition schedule. Students must be admitted to SENMC to access all services and courses.

For more information about these services or its offerings, call (575) 234-9315, visit the LAC in Room 253 or visit our website at https://senmc.libguides.com/LAC (https://senmc.libguides.com/LAC/). The LAC

hours are 8 a.m. to 5:30 p.m. Monday through Thursday and the hours on Friday are 8 a.m. to 12 noon during the Fall and Spring semesters. Summer hours are determined at the end of the spring semester.

Learning Technology Center

The Learning Technology Center (LTC) (https://senmc.edu/ltc/) located in Room 211 of the Main Building, is open Monday through Thursday, 8am to 5:30pm and Friday 8am to noon. The office phone number is (575) 234-9263. The LTC provides technology support for faculty, staff and students at Southeast New Mexico College. The goals of the LTC include teaching faculty and students on the learning management system (LMS) and other web technologies, providing professional development for faculty and staff, helping faculty improve course design and development of online learning and assisting students with technology issues.

For students, the LTC provides training and technology support in the following topics:

- Cloud based storage (Google Drive, Microsoft 365 OneDrive)
- Learning Management System - Canvas interface/online classroom
- Mobile learning devices basics
- SENMC account set up
- SENMC E-mail
- Other Web technologies

Computer Center

The Computer Center at SENMC operates four instructional computer classrooms and general use computer labs in the Library, Learning Technology Center and the Learning Assistance Center. All computers are networked and provide access to the Internet. The Center maintains a staff of full time and student employees to provide users with technical support. The ICT general Help Desk phone number is (575) 234-9448.

Student Computer Accounts

All students enrolled for credit courses are given a computer account that allows them access to the Internet during the semester(s) in which they are enrolled. This account also allows a student access to server-based storage for homework. If you are experiencing trouble with Canvas or Anthology access, please call the LTC at (575) 234-9263 or (575) 234-9259.

Library and Media Center

A center of academic activity, the SENMC Library (https://senmc.edu/library/) is the first choice for information for students at Southeast New Mexico College (SENMC). The campus library supports learning and instruction with online and traditional learning resources. The library ensures equal access to learners across the spectrum of educational level, physical ability and location. General and discipline-based instruction is available for classes, individual students and faculty by appointment.

Through active collaboration with faculty, the library offers academic and vocational resources relevant to student achievement and success. Information literacy training is embedded into the physical and on-line learning environments to ensure technological readiness vital to personal and professional achievement in today's global economy.

The library is an open, vibrant, and student-centered environment that encourages discovery and academic advancement through active

learning. A welcoming space for individual and collaborative interaction, the library is open five days, 57 hours a week during the fall and spring semesters. Remote access to selected online resources is available to current students, faculty and staff.

The library also serves as a public gateway for the Carlsbad and Eddy County communities by providing access to both print and specific online resources delivered through the State Library of New Mexico.

Services Offered:

- Student Computer Lab and Printer
- Scanning System
- Study Room
- Print and Electronic Resources
- Interlibrary Loans
- Research Assistant
- Library Resource Presentations
- Public Computers *(Business Use Only)*

Library Hours

Monday: Thursday 7:45 am to 8:00 pm
Friday: 8:00 am to 5:00 pm
Saturday and Sunday: Closed
The SENMC library follows the calendar and is closed whenever the campus is closed.

Service Learning Opportunities

A variety of SENMC courses may include Service Learning options. Service learning programs involve students in activities that address local needs while developing their academic skills and commitment to their community. Service Learning is a teaching and learning strategy that connects meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility and strengthen communities. Participants in Service Learning master important curriculum content by making connections between what they are studying in the SENMC classroom and its many applications. The four pillars of Service Learning are:

- the academic focus in the SENMC classroom,
- the service that meets a community need,
- reflecting on the experience, and
- strengthened civic responsibility.

For more information on Service Learning Opportunities at SENMC call (575) 234-9268 or visit the Community Education Office on campus in office 1B.

Small Business Development Center

"Building New Mexico's Economy One Business at a Time."

The Small Business Development Center (SBDC) located at SENMC provides free, confidential counseling to small business owners and prospective entrepreneurs in the areas of business planning, evaluation, marketing, management, financial analysis and loan package organization.

Our uniquely qualified staff provides professional, one-on-one client centered counseling for all aspects of starting and managing a business, as well as finding solutions to challenges faced by existing business owners and entrepreneurs.

The Carlsbad SBDC is a resource partner of the U.S. Small Business Administration and is one of twenty offices in the New Mexico SBDC Network. Through a vast network of local, state and federal resource partners, the Carlsbad SBDC is able to provide clients and students with access to numerous business resources, including free and low-cost training and workshops.

We are located within the campus at 1500 University Drive – Rm 223, Carlsbad, NM 88220. For more information on small business counseling and training opportunities please contact us at (575) 885-9531 or (575) 247-1777.

Student Organizations

SENMC Students are invited to participate in the student organizations offered on the SENMC campus. Some clubs may consist of events and activities throughout the semester and are under advisement of SENMC faculty or staff member. For questions please contact Judi Cox-Tindol at (575)234-9335.

American Criminal Justice Association

The Beta Alpha Delta (BAD) Chapter of the American Criminal Justice Society. In addition to campus and community service projects, members participate in regional and national competitions. Membership is open to anyone who has an interest in Criminal Justice. For further information, please call (575) 234-9421.

Equality Club

Equality club is committed to the wellness and success of all students, faculty, and staff in there expression of gender and sexuality at SENMC. Equality Club meets to provide a safe space to gather and promote advocacy, education and programming within SENMC and the community. Our Mission is to promote diversity and inclusion at SENMC.

E-Sports Club

E-Sports, and open-membership SENMC club will grow in members while being academically conscience and community-minded as to demonstrate that gaming is a skill-based and critical-thinking team.

Phi Theta Kappa

Phi Theta Kappa is the international honor society for two year colleges. To be eligible, students must have a 3.5 GPA, have completed 12 credit hours of non-developmental course work, be of good character and be recommended by faculty. Members are invited to membership once per semester. Members are eligible for special conferences, workshops and scholarships. A one-time fee of $65 is required.

Student Government

The Student Government of SENMC are elected by and represent the student body. During the spring semester, SENMC holds an election and the newly elected members serve during the next academic year (summer sessions excluded). The Student Government coordinates campus activities and host events on student development issues such as drug

and alcohol abuse prevention, suicide prevention, mental and physical wellness, leadership and cultural diversity.

Student Government is open to any student meeting the following qualifications: Enrolled in a minimum of 6 semester credits, possessing a 2.0 grade point average or higher, and in good standing with SENMC. Responsibilities of the Associated Students include but are not limited to identifying qualifications for the recognition of student organizations and related funding, student social activities, student activity budgets, student publications, student elections, students' academic freedoms, and the use of facilities dedicated for student's social, cultural, recreational and service activities. Students are encouraged to join and actively participate in the student government. For more information, call (575) 234-9335.

Student Nurses Association

The SENMC Student Nurses Association is an organization for nursing students designed to contribute to nursing education, to provide programs representative of the fundamental interests and concerns of nursing students and to aid nursing students in the development of the whole person, and to promote and encourage collaborative relationships with nursing and health related organizations. Membership is open to pre and current nursing students. For more information, call (575) 234- 9300.

Note: This list of Student Organizations could change as students are always welcome to create additional organizations and clubs.

Workforce Development

Pave Your Way to Success:

SENMC Workforce Development (https://senmc.edu/workforce/) drives economic growth and personal fulfillment by paving the way with comprehensive training and empowering individuals and businesses on their road to success.

FIELDS OF STUDY

SENMC offers undergraduate courses which, when taken in specified sequences with additional academic requirements, normally lead to a certificate or an associate degree.

A certificate represents a sequence of specified courses which offer instruction in specific knowledge, competencies and skills to meet certain predetermined qualifications specified and/or required by a given vocation or profession. The certificate normally represents approximately one year of full time college study or its equivalence in the depth and quality of related learning experiences, and is intended to train and otherwise prepare graduates for entry into the workforce immediately upon completion of their studies. Consequently, the emphasis of a certain curriculum is to provide graduates with the knowledge, competencies and skills to succeed in a specific vocation or profession; without immediate need for additional academic preparation.

An associate degree is an undergraduate degree and is awarded to graduates of prescribed lower division (first- and second-year coursework for a 4-year degree) curricula normally representing approximately two years of full time college study (60 or more semester credits) or its equivalent in the depth and quality of related learning experiences. The Associate of Arts degree normally implies a liberal education orientation and the Associate of Applied Science degree normally implies a more applied orientation in a given discipline; which may align with a specific vocational or professional field. SENMC also awards an Associate Degree in General Studies. Although graduates awarded the Associate of Applied Science degree intend to enter the workplace immediately, most graduates of the Associate of Arts degree intend to continue their academic preparation towards the completion of a baccalaureate degree and should be mindful of what courses may transfer easily toward their major area of study at the receiving institution.

All entering students are required to take specific placement tests in the areas of English, math and reading to determine their eligibility for entrance to college level courses.

Prerequisites to Certificates

Graduates in certificate programs must demonstrate proficiency in reading, math and English. Additional remediation may be required to attain these scores.

Requirements Specific to Associate Degrees

The following requirements apply to students seeking to graduate with an associate degree from SENMC:

1. Students must maintain a cumulative grade point average of 2.0 or higher.
2. Students must take 15 semester credits through SENMC (cannot include CLEP, challenge exams, or transfer credits).
3. Students must complete a minimum of 60 approved semester credits.
4. Student must complete ENGL 1110G Composition I with a grade a C or better.

Preparation for Transfer to Baccalaureate Study

SENMC offers courses up the first two years of study to prepare students for a variety of Bachelor degree programs. SENMC offers associate degrees and certificates in a variety of fields. Students planning to attend a baccalaureate granting institution are encouraged to contact the institution they intend to attend and secure all application materials and information pertaining to their intended programs of study.

Requirements for baccalaureate degrees awarded through state colleges and universities in New Mexico include specific general education courses that are recognized as transferable statewide. Visit https://hed.nm.gov/resources-for-schools/public_schools/nm-course-numbering-system (https://hed.nm.gov/resources-for-schools/public_schools/nm-course-numbering-system/) for more information.

ACADEMIC PROGRAMS

Southeast New Mexico College (SENMC) awards both associate degrees, associate of applied science degrees and certificates. Associate and associate applied science degrees must have a minimum of a minimum of 60 semester credits (excluding "N" suffix courses), see each individual degree requirements for the number of hours require for that degree. Transfer students must complete a minimum 15 credits of an associate or associate of applied science degree at SENMC. The minimum of hours that must be completed at SENMC for certificates is designated on those certificates.

Associate Degree and Certificate Programs

Programs offered at Southeast New Mexico College

Programs are titled in the following styles[1]:

- **Computer and Information Technology-IT Specialist - Associate of Applied Science**
  - Degree Title (Computer and Information Technology-IT Specialist), will appear on diplomas and transcripts
  - Degree Type (Associate of Applied Science), will appear on diplomas and transcripts
- **Associate of Science[1]**
  - Degree title (Associate of Science), will appear on diplomas and transcripts

[1]

Note: that some degrees will have emphasis, options, pathways, etc. appear on the degree page, but these items will not appear on transcripts.

A

B

C

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Accounting and Banking

The **Certificate in Accounting** prepares students for work within the managerial field of accounting. In addition to accounting principles, practices, and software, the curriculum focuses on business law, management, and operation of the microcomputer and common computer applications.

The **Certificate in Banking** prepares students for work in the banking industry. The curriculum focuses on accounting, banking principles, business law, communications, management, marketing, spreadsheets, and operation of the microcomputer and common computer applications.

Graduation Requirements

The certificates require a cumulative GPA of 2.0 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC.

ACCT 1210 Income Taxation 3 Credits (3)
Federal income taxation of individuals, sole proprietorships, partnerships, corporations, trusts, and estates with particular reference to CLU, life insurance and annuities.
Learning Outcomes
1. Demonstrate their familiarity with the Federal Individual Income Tax System.
2. Demonstrate their familiarity with the Federal Income Tax System for sole proprietorships, partnerships, corporations, trusts, and estates.
3. Explain and demonstrate gross income, deductions and loses and how they relate to Federal Individual Income tax returns.
4. Demonstrate their ability to calculate basic gains and losses on property transactions.

View Course Outcomes

ACCT 2110 Principles of Accounting I (Financial) 3 Credits (3)
An introduction to financial accounting concepts emphasizing the analysis of business transactions in accordance with generally accepted accounting principles (GAAP), the effect of these transactions on the financial statements, financial analysis, and the interrelationships of the financial statements.
Learning Outcomes
1. Analyze business transactions, their effects on the financial statements and the interrelationships of the financial statements involving the following: a. Cash transactions b. Receivables and Net Realizable Value c. Operational Assets and Depreciation d. Inventory e. Current Liabilities f. Long-term Liabilities
2. Define, identify and demonstrate the impact of adjusting entries on financial statements.
3. Explain and demonstrate the differences between cash and accrual basis accounting.
4. Define and identify generally accepted accounting principles. Required to be included in either Principles of Accounting I (Financial) or Principles of Accounting II (Managerial)
5. Analyze equity ownership transactions and their effect on the financial statements.
6. Identify the cash flow statement activities and explain the purpose of the cash flow statement.
7. Perform ratio analysis to evaluate financial statements.

View Course Outcomes

ACCT 2115 Survey of Accounting 3 Credits (3)
Designed to provide a basic understanding of accounting procedures for small businesses. Provide a foundation of the accounting cycle for a small business enterprise and a practical understanding of business financial statements.
Learning Outcomes
  1. Explain basic accounting concepts and terminology.
  2. Perform the basic steps in the accounting cycle for a small business.
  3. Prepare bank reconciliations.
  4. Prepare payroll journals and calculate withholding deductions

View Course Outcomes

ACCT 2120 Principles of Accounting II (Managerial) 3 Credits (3)
An introduction to the use of accounting information in the management decision making processes of planning, implementing, and controlling business activities. In addition, the course will discuss the accumulation and classification of costs as well as demonstrate the difference between costing systems.
Prerequisite(s): ACCT 2110
Learning Outcomes
  1. Identify the differences between financial and managerial accounting.
  2. Illustrate the accumulation of costs in cost accounting systems.
  3. Describe the basic elements of the budgeting process, its objectives and budget preparation.
  4. Define and classify cost behavior.
  5. Perform cost-volume-profit analysis for decision making.
  6. Perform differential (incremental) analysis for business decision making.
  7. Explain the cause of the variance and its effect on the income statement.
  8. Explain and demonstrate the difference between traditional costing and activity-based costing. Required to be included in either Principles of Accounting I (Financial) or Principles of Accounting II (Managerial)
  9. Analyze equity ownership transactions and their effect on the financial statements.
 10. Identify the cash flow statement activities and explain the purpose of the cash flow statement.
 11. Perform ratio analysis to evaluate financial statements.

View Course Outcomes

BCIS 1110 Fundamentals of Information Literacy and Systems 3 Credits (3)
Examination of information systems and their impact on commerce, education, and personal activities. Utilization of productivity tools for communications, data analysis, information management and decision-making.
Learning Outcomes
  1. Describe the social impact of information literacy and systems in relation to commerce, education, and personal activities.
  2. Explain how to use the information resources legally, safely, and responsibly in relation to ethical, security, and privacy issues.
  3. Evaluate bias, accuracy and relevance of information and its sources.
  4. Use productivity tools for communications, data analysis, information management and decision- making.
  5. Describe and use current information systems and technologies

View Course Outcomes

BFIN 1210 Principles of Banking 3 Credits (3)
Survey of banking in today's economy. Topics include language, documents and processes of banking from the fundamentals of negotiable instruments to contemporary issues.
Learning Outcomes
  1. Define and explain the importance of full-service commercial banking.
  2. Explain the development of commercial banking in the United States and the federal legislation that shaped its development.
  3. Explain the impacts of the banking industry on the economy, the community, and individuals.
  4. Describe the major functions of commercial banks and their interrelationships.
  5. Explain the functions and importance of the Federal Reserve System.
  6. Compare and contrast time and demand deposits.
  7. Define negotiable instrument and describe the features that make an instrument negotiable.
  8. Explain check paying procedures and regulations.
  9. Discuss the importance, necessity and process of bank investments. 1
 10. Describe the role of the bank's board of directors in establishing and overseeing lending policy and identifying basic loan categories. 1
 11. Explain the concepts of liquidity and its importance to the banking industry.

View Course Outcomes

BLAW 2110 Business Law I 3 Credits (3)

Survey of the legal environment of business and common legal principles including: the sources of law, dispute resolution and the U.S. court systems, administrative law, tort law, contract law, agency and employment law, business structure and governance, ethics and corporate social responsibility. Explores sources of liability and presents strategies to minimize legal risk.

Learning Outcomes

1. Describe the sources of law.

2. Describe and explain dispute resolution and the court systems in the United States.

3. Describe the concepts of negligence, intentional torts and strict liability.

4. Describe and apply the essential aspects of contracts from creation, performance, breach and remedies, including basic contract law from Article 2 of the Uniform Commercial Code.

5. Explain the concept of ethics.

View Course Outcomes

BMGT 225 Introduction to Commercial Lending 3 Credits (3)

Commercial lending overview, the lending process, portfolio management, and regulation and business development.

Prerequisite(s): BMGT 112

View Course Outcomes

BUSA 1110 Introduction to Business 3 Credits (3)

Fundamental concepts and terminology of business including areas such as management, marketing, accounting, economics, personnel, and finance; and the global environment in which they operate.

Learning Outcomes

1. Explain how business and entrepreneurship affect the quality of life and the world around us.

2. Explain the characteristics of the different forms of business ownership.

3. Perform basic stakeholder analysis concerning accountability, ethics and social responsibility of business.

4. Demonstrate knowledge of the various dimensions of the business environment including political and legal, socio-cultural, environmental, diversity, economic, technological, and global.

5. Describe the purpose and functions of finance, operations, marketing, management, accounting, and information systems.

6. Demonstrate basic skills such as use of common business terminology, information search skills, presentation and writing skills, and team skills.

7. Describe the purpose and content of a business plan.

View Course Outcomes

ECON 2110G Macroeconomic Principles 3 Credits (3)

Macroeconomics is the study of national and global economies. Topics include output, unemployment and inflation; and how they are affected by financial systems, fiscal and monetary policies.

View Course Outcomes

ENGL 1110G Composition I 4 Credits (4)

In this course, students will read, write, and think about a variety of issues and texts. They will develop reading and writing skills that will help with the writing required in their fields of study and other personal and professional contexts. Students will learn to analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading and writing. They will also gain an understanding of how writing and other modes of communication work together for rhetorical purposes. Students will learn to analyze the rhetorical context of any writing task and compose with purpose, audience, and genre in mind. Students will reflect on their own writing processes, learn to workshop drafts with other writers, and practice techniques for writing, revising, and editing.

Prerequisite(s): ACT standard score in English of 16 or higher, or an Accuplacer score 250 or higher, or an SAT score of 430-579 or higher or CCDE 110N with C or higher

View Course Outcomes

MGMT 2110 Principles of Management 3 Credits (3)

An introduction to the basic theory of management including the functions of planning, organizing, staffing, leading, and controlling, while considering management's ethical and social responsibilities.

Learning Outcomes

1. Explain the major functions of management including planning, organizing, communications, controlling, motivating, leading, and staffing.

2. Recognize major developments in the history of management thought.

3. Describe the basic managerial processes including decision-making and other key skills necessary for managers to perform their roles.

4. Identify an organization's stakeholders and the importance of social and ethical responsibility of managers.

5. Explain the formulation and implementation of strategic planning, including the relationship between goals, plans, vision statements, and mission statements.

6. Describe the strategies managers use to help organizations adapt to changing internal and external environments.

7. Explain organizational change, forces for change, sources of resistance to change, and the techniques managers can use to implement and facilitate change.

View Course Outcomes

OECS 200 Accounting on Microcomputers 3 Credits (3)

Fundamental accounting principles using popular microcomputer software to include G/L, A/R, A/P, purchase order, billing, inventory, and forecasting modules.

Prerequisite(s): ACCT 2110 or OATS 121

Learning Outcomes

1. Effective communication skills in reading, writing, listening, and speaking.

2. Basic critical thinking skills including problem identification, evidence acquisition, evidence evaluation, and problem solving and analytical decision making.

3. An understanding of personal and social responsibility

4. An ability to apply the fundamental concepts of quantitative reasoning in mathematics and science.

View Course Outcomes

OECS 211 Word Processing Applications 1-3 Credits
Basic word processing to include composing, editing, formatting, and printing of documents. Prerequisites: BCIS 1110 or OECS 105
Repeatable: under different subtitles listed in the Schedule of Classes for a maximum of 6 credits
View Course Outcomes

OECS 215 Spreadsheet Applications 1-3 Credits
Use of spreadsheets to include graphics and business applications. Prerequisites: BCIS 1110 or OECS 105
Repeatable: for a maximum of 6 credits
Learning Outcomes
1. Create and format worksheets/workbooks using features of Microsoft Excel including chart data, styles, and themes.
2. Utilize formulas and functions to create worksheets suitable for professional and personal purposes.
3. Utilize the advanced function of Excel to create templates, work with multiple worksheet, advanced sorting and filtering and data analysis.

View Course Outcomes

OECS 220 Database Application and Design 1-3 Credits
Creating, sorting, and searching of single and multifile databases to include report generation and programming database commands.
Prerequisite(s): BCIS 1110 OR E T 120 OR OECS 105
Repeatable: for a maximum of 6 credits under different subtitles listed in the Schedule of Classes
View Course Outcomes

Accounting - Certificate of Completion

Code	Title	Hours
Technical Requirements		
ACCT 1210	Income Taxation (BMGT 150)	3
ACCT 2110	Principles of Accounting I (Financial)	3
ACCT 2115	Survey of Accounting (ACCT 200)	3
ACCT 2120	Principles of Accounting II (Managerial)	3
BLAW 2110	Business Law I (BLAW 230/BMGT 231)	3
BUSA 1110	Introduction to Business	3
MGMT 2110	Principles of Management	3
OECS 200	Accounting on Microcomputers	3
OECS 211	Word Processing Applications	3
OECS 215	Spreadsheet Applications	3
OECS 220	Database Application and Design	3
Total Hours		**33**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ACCT 2115	Survey of Accounting (ACCT 200)	3
BUSA 1110	Introduction to Business	3
OECS 211	Word Processing Applications	3
	Hours	**9**
Spring		
BLAW 2110	Business Law I (BMGT 230/BMGT 231)	3
MGMT 2110	Principles of Management	3
OECS 215	Spreadsheet Applications	3
	Hours	**9**
Second Year		
Fall		
ACCT 2110	Principles of Accounting I (Financial)	3
OECS 220	Database Application and Design	3
	Hours	**6**
Spring		
ACCT 1210	Income Taxation (BMGT 150)	3
ACCT 2120	Principles of Accounting II (Managerial)	3
OECS 200	Accounting on Microcomputers	3
	Hours	**9**
	Total Hours	**33**

Banking - Certificate of Completion

Code	Title	Hours
Technical Requirements		
ACCT 2110	Principles of Accounting I (Financial)	3
ACCT 2120	Principles of Accounting II (Managerial)	3
BCIS 1110	Fundamentals of Information Literacy and Systems	3
BFIN 1210	Principles of Banking	3
BLAW 2110	Business Law I	3
BMGT 225	Introduction to Commercial Lending (or Approved BMGT Elective)	3
ECON 2110G	Macroeconomic Principles	3
ENGL 1110G	Composition I	4
MGMT 2110	Principles of Management	3
OECS 215	Spreadsheet Applications	3
Electives		2-3
Total Hours		**33-34**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ACCT 2110	Principles of Accounting I (Financial)	3
BCIS 1110	Fundamentals of Information Literacy and Systems	3
BFIN 1210	Principles of Banking	3
	Hours	**9**
Spring		
ACCT 2120	Principles of Accounting II (Managerial)	3
BLAW 2110	Business Law I	3
	Hours	**6**

Second Year
Fall

BMGT 225	Introduction to Commercial Lending (or Approved BMGT Elective)	3
OECS 215	Spreadsheet Applications	3
ENGL 1110G	Composition I	4
	Hours	**10**

Spring

ECON 2110G	Macroeconomic Principles	3
MGMT 2110	Principles of Management	3
Elective		2-3
	Hours	**8-9**
	Total Hours	**33-34**

Agriculture

The **Associate of Applied Science in Agriculture** focuses on the general principles and practice of agricultural research and production and prepares individuals to apply this knowledge to the solution of practical agricultural problems. The curriculum includes instruction in basic animal, plant, and soil science as well as agricultural business.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements.

- Agriculture - Associate of Applied Science (p. 53)

AEEC 1110 Introduction to Agricultural Economics and Business 3 Credits (3)
This course is an orientation to agricultural economics and business through the discovery process for the consumer in the food, fiber, and natural resource sectors of the global economy. The course discusses the application of micro-and macro-economic principles as they relate to agricultural economics and business. Repeatable: up to 3 credits.
Learning Outcomes
1. Gain a broad understanding of the role of the consumer in the market-place for agricultural commodities, producers, agencies and the global market structure.
2. Apply introductory economic principles to applied global situations.
3. Employ economic concepts in the application of production level decision making.
4. Employ economic principles to the basic and global agricultural community.
5. Understand relationships that exist between producers and consumers.

View Course Outcomes

AEEC 2110 Principles of Food and Agribusiness Management 3 Credits (3)
This course introduces business management theory and application of theory related to businesses within the food and fiber supply chain. Topics include management and financial principles, market planning, and organization theory. Repeatable: up to 3 credits.
Learning Outcomes
1. Demonstrate, refine and expand written and oral communication skills
2. Develop an understanding of basic financial statements, their use and analysis
3. Understand the roles management and management styles play in modern agribusiness
4. Learn about the history of agribusiness domestically and internationally
5. Integrate the role of technology into modern agribusiness management

View Course Outcomes

AGRO 2160 Plant Propagation 3 Credits (3)
Practical methods of propagating horticultural plants by seed, cuttings, layering, grafting, division and tissue culture. Examination of relevant physiological processes involved with successful plant propagation techniques. Crosslist: HORT 2160. (2+2P)
Learning Outcomes
1. Practical methods of propagating plants by seed, cuttings, layering, grafting, division, and tissue culture through experiential, "hands-on" laboratories.
2. Relevant physiological principles involved in propagating horticultural plants through lecture discussions and readings.

View Course Outcomes

ANSC 1120 Introduction to Animal Science 3 Credits (3)
Survey of the livestock industry throughout the world. Basic management practices will be covered, including livestock selection, nutrition, reproduction, anatomy and marketing to the consumer. This course will also discuss animal behavior and welfare.
Learning Outcomes
1. Understand the role of farm animals in a global setting.
2. Describe the role of nutrition, breeding, behavior, welfare, and physiology of livestock in the world.
3. Explain the structure and organization of livestock industries.
4. Discuss concepts and terminology of the livestock industries as they relate to the global perspective.
5. Classify the overall management, care, marketing of animals, represented in the various livestock industries.

View Course Outcomes

ANSC 1120L Introduction to Animal Science Laboratory 1 Credit (1)
Students will observe and participate in activities related to farm animal management and will include areas of livestock selection, nutrition, reproductive physiology, animal ID and animal health. This lab is required for animal science majors. (2P)
Prerequisite(s)/Corequisite(s): ANSC 1120
View Course Outcomes

ANSC 2330 Animal Production 3 Credits (3)
Production and utilization of beef cattle, sheep, and swine; emphasis on feeding, breeding, management problems and marketing; selection of animals for breeding and market. (2+2P)
Learning Outcomes
1. Increasing the understanding of meat animal production.
2. Increase the students' ability to apply principles of production to the industry perspective.
3. Apply the increased knowledge of meat animal production to global situations.
4. Gain a broader understanding of the importance of meat animals in the global food system.

View Course Outcomes

AXED 1130 Techniques in Agricultural Mechanization 3 Credits (3)
Development of competencies in agricultural mechanics including safety, tool identification, operation and maintenance of hand and power tools, cold metal, drafting, and plumbing procedures. Designed for any major wishing to improve mechanical skills needed in agriculturally related occupations in education and industry. (2+2P)
Learning Outcomes
1. To understand basic drafting language used in orthographic and isometric drawings.
2. To develop an understanding of the proper use and safety of basic hand and power tools.
3. To develop skills needed to operate basic hand and power tools correctly.
4. To develop an understanding of surveying methods and building layout for construction.
5. To develop an adequate level of competence in workshop techniques.
6. To prepare students to properly teach and demonstrate these techniques to others who may use them as a means of earning a living.

View Course Outcomes

BCIS 1110 Fundamentals of Information Literacy and Systems 3 Credits (3)
Examination of information systems and their impact on commerce, education, and personal activities. Utilization of productivity tools for communications, data analysis, information management and decision-making.
Learning Outcomes
1. Describe the social impact of information literacy and systems in relation to commerce, education, and personal activities.
2. Explain how to use the information resources legally, safely, and responsibly in relation to ethical, security, and privacy issues.
3. Evaluate bias, accuracy and relevance of information and its sources.
4. Use productivity tools for communications, data analysis, information management and decision- making.
5. Describe and use current information systems and technologies

View Course Outcomes

BIOL 2610G Principles of Biology: Biodiversity, Ecology, and Evolution 3 Credits (3)
This course is an introduction to the dynamic processes of living things. Major topics include the mechanisms of evolution, biological diversity, Mendelian genetics, and ecology.
Prerequisite(s)/Corequisite(s): grade of C- or better in MATH 1215 or higher, or a Math Placement Exam score adequate to enroll in mathematics courses beyond MATH 1215
View Course Outcomes

BIOL 2610L Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory 1 Credit (1)
This laboratory course is an introduction to the dynamic processes of living things. This course introduces students to the methods used in the study of Mendelian genetics, evolution, ecology, and biological diversity. Designed for students continuing in life sciences.
Prerequisite(s)/Corequisite(s): BIOL 2610G; grade of C- or better in MATH 1215 or higher, or a Math Placement Exam score adequate to enroll in mathematics courses beyond MATH 1215
Learning Outcomes
1. Describe and apply the scientific method to generate testable hypotheses in evolution and ecology.
2. Design and conduct laboratory experiments using relevant laboratory equipment and methods.
3. Analyze and report data generated during laboratory activities and experiments.
4. Communicate scientific results from experiments in evolution, ecology, and biodiversity.

View Course Outcomes

ECON 2110G Macroeconomic Principles 3 Credits (3)
Macroeconomics is the study of national and global economies. Topics include output, unemployment and inflation; and how they are affected by financial systems, fiscal and monetary policies.
View Course Outcomes

ECON 2120G Microeconomic Principles 3 Credits (3)
This course will provide a broad overview of microeconomics. Microeconomics is the study of issues specific to households, firms, or industries with an emphasis on the role of markets. Topics discussed will include household and firm behavior, demand and supply, government intervention, market structures, and the efficient allocation of resources.
View Course Outcomes

MATH 1215 Intermediate Algebra 3 Credits (3)
A study of linear and quadratic functions, and an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. A development of strategies for solving single-variable equations and contextual problems.
Prerequisite(s): adequate scoring on the Mathematic Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in CCDM 113 N or CCDM 114 N
Learning Outcomes
1. Demonstrate appropriate use of basic function language and notation.
2. Convert between equivalent forms of algebraic expressions.
3. Solve single-variable equations of the types listed above.
4. Interpret and communicate algebraic solutions graphically and numerically.
5. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.
6. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.

View Course Outcomes

POLS 1120G American National Government 3 Credits (3)
This course explains the role of American national government, its formation and principles of the Constitution; relation of state to the national government; political parties and their relationship to interest groups. This course also explains the structure of the legislative, executive, and judicial branches.
View Course Outcomes

WELD 105 Introduction to Welding 3 Credits (3)
Welding practices, procedures, and terminology. Welding safety, equipment types, electrode types in usage, joint design and testing procedures.
View Course Outcomes

Agriculture - Associate of Applied Science

The **Associate of Applied Science in Agriculture** program prepares students with classes in the basic agricultural and foundation sciences; business and economics, education, communication, technology, agronomy, animal science, mechanics and horticulture. The purpose of this program is to prepare individuals to apply the broad-based curriculum towards an agricultural career as professional educators, communicators and leaders of agricultural, natural resource, technology and related disciplines. The courses provided through this program will assist in building a strong base of students who are willing to pursue further education opportunities in the agriculture industry. New Mexico has a viable and productive agricultural industry, with cash receipts totaling more than $3 billion and a total economic impact with over $6 billion. These facts alone constitute an educated workforce that is prepared for the ever-changing markets and production of the state's food supply, natural resources, and environment. This degree will equip students with the necessary skills for employment within this growing industry.

Code	Title	Hours
General Education		
Courses are required from Area I, II, III, IV, V and VI [1,2]		19

Area I: Communications		
ACOM 1130G	Effective Leadership and Communication in Agriculture (Technical Requirement) [1]	
Area II: Mathematics		
Area III: Laboratory Science		
AGRO 1110G	Introduction to Plant Science (Lecture & Laboratory) (Technical Requirement) [1]	
Area IV: Social/Behavioral Sciences		
AEEC 2130G	Survey of Food and Agricultural Issues (Technical Requirement) [1]	
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
AEEC 1110	Introduction to Agricultural Economics and Business	3
AEEC 2110	Principles of Food and Agribusiness Management	3
AGRO 2160	Plant Propagation	3
ANSC 1120 & 1120L	Introduction to Animal Science and Introduction to Animal Science Laboratory	4
ANSC 2330	Animal Production	3
AXED 1130	Techniques in Agricultural Mechanization	3
BCIS 1110	Fundamentals of Information Literacy and Systems	3
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
ECON 2110G or ECON 2120G	Macroeconomic Principles Microeconomic Principles	3
MATH 1215	Intermediate Algebra	3
POLS 1120G	American National Government	3
WELD 105	Introduction to Welding	3
Electives, to bring the total credits to 60 [3]		**3**
Total Hours		**60**

[1]
Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

[2]
See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ACOM 1130G	Effective Leadership and Communication in Agriculture (Area I: Communications)	3
ANSC 1120 & 1120L	Introduction to Animal Science and Introduction to Animal Science Laboratory	4
AGRO 1110G	Introduction to Plant Science (Lecture & Laboratory) (Area III: Laboratory Science)	4

BCIS 1110	Fundamentals of Information Literacy and Systems	3
	Hours	**14**
Spring		
ANSC 2330	Animal Production	3
AEEC 2130G	Survey of Food and Agricultural Issues (Area IV: Social/Behavioral Sciences)	3
MATH 1215	Intermediate Algebra	3
WELD 105	Introduction to Welding	3
Area II: Mathematics [1]		3
	Hours	**15**
Second Year		
Fall		
AEEC 1110	Introduction to Agricultural Economics and Business	3
AXED 1130	Techniques in Agricultural Mechanization	3
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
Area V: Humanities [1]		3
Area VI: Creative and Fine Arts [1]		3
	Hours	**16**
Spring		
AEEC 2110	Principles of Food and Agribusiness Management	3
AGRO 2160	Plant Propagation	3
ECON 2110G or ECON 2120G	Macroeconomic Principles or Microeconomic Principles	3
POLS 1120G	American National Government	3
Elective Course		3
	Hours	**15**
	Total Hours	**60**

[1]

See the General Education section of the catalog for a full list of courses.

General Studies

The **Associate Degree in General Studies** equips students with the freedom to design their own two-year program by selecting classes that meet their needs governed only by departmental prerequisites.

The **Associate of Arts Degree** allows students to complete general education requirements for most bachelor degree programs. Students should choose electives to meet other requirements for their planned baccalaureate degree such as foreign language requirements or specific requirements within the major.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher and a cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Associate of Arts Degree (p. 54)
- Associate in General Studies (p. 55)

Associate of Arts Degree

The **Associate of Arts Degree** allows students to complete general education requirements for most bachelor degree programs. Students should choose electives to meet other requirements for their planned baccalaureate degree such as foreign language requirements or specific requirements within the major.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher; 15 credits taken at SENMC.

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	
English Composition - Level 2		3
Choose one from the following:		
ENGL 2210G	Professional & Technical Communication	
ENGL 2221G	Writing in the Humanities and Social Science	
Oral Communication [1]		3
Area II: Mathematics [1]		3
Area III: Laboratory Science [1]		4
Area IV: Social/Behavioral Sciences [1]		3
Area III or IV: Laboratory Science or Social/Behavioral Sciences Course [1]		4-3
Area V: Humanities [1]		3
Area VI: Creative and Fine Arts [1]		3
Area VII: Flexible 3 (General Education Elective) [1]		4-3
Electives, to bring the total credits to 60		**26-29**
Total Hours		**60**

[1]

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I	4
Area III: Laboratory Sciences Course [1]		4
Area V: Humanities Course [1]		3
Area IV: Social/Behavioral Sciences Course [1]		3
	Hours	**14**

Spring

Area II: Mathematics Course [1]		3-4
Choose one from the following:		3
ENGL 2210G	Professional & Technical Communication	
ENGL 2221G	Writing in the Humanities and Social Science	
Either an Area III/IV: Laboratory Science or Social/Behavioral Sciences Course [1]		3-4
Elective Course [3]		3
An additional Area V: Humanities course is recommended		
Elective Course [2]		3
An additional Area IV: Social/Behavioral Sciences course is recommended		
Hours		**15-17**
Second Year		
Fall		
COMM 1130G	Public Speaking	3
or COMM 1115G	or Introduction to Communication	
Area VI: Creative and Fine Arts Course [1]		3
General Education Elective Course [1]		3-4
Elective Course [2]		3
Elective Course [2]		4
An additional Area III: Laboratory Sciences course is recommended		
Hours		**16-17**
Spring		
Elective Course [2]		3
Either an additional Area IV/V: Social/Behavioral Sciences or Humanities course is recommended		
Elective Course [2]		3
Elective Course [2]		3
Elective Course [2]		4
Elective Course [2]		2
Hours		**15**
Total Hours		**60-63**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

No more than 9 credits may be from any combination of: BOT, FDMA, NURS, READ, OE, FYEX (excluding FYEX 1112 The Freshman Year Experience), or applied ARTS/ARTH/MUSC/THEA. Also, no more than 9 credits of PHED may apply.

Associate in General Studies

The **Associate Degree in General Studies** equips students with the freedom to design their own two-year program by selecting classes that meet their needs governed only by departmental prerequisites. **Note:** A student who has previously earned an associate degree from SENMC or from any other institution must have an additional 15 credit hours not previously applied to a degree with SENMC.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher; 15 credits taken at SENMC complete a total of 60 credits (excluding noncredit courses such as any "N" suffix course)

Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications [1]		
English Composition - Level 1		4-3
English Composition - Level 2		3
Oral Communication		3
Area II: Mathematics [1]		3-4
Area III: Laboratory Science [1]		4
Area IV: Social/Behavioral Sciences [1]		
Area III/IV: Laboratory Science or Social/Behavioral Science [1]		4-3
Area V: Humanities [1]		3
Area VI: Creative and Fine Arts [1]		3
Area VII: Flexible 3 (General Education Elective) [1]		3-4
Electives, to bring the total credits to 60 [2]		**30-32**
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

Auto Body Collision and Repair

The **Auto Body Collision and Repair** program prepares individuals for employment in the auto body repair industry in positions such as

- Automotive Refinish Technician,
- Auto Body Painter,
- Collision Technician, and
- Automotive Body Technician.

Students in Automotive Refinishing learn surface preparation, paint safety, refinishing fundamentals; application of acrylic enamel and base coat/clear coat refinishing systems as well as how to match paint type and color; color theory, evaluation, matching, multiple panel paint blending techniques.

The Collision Repair curriculum has two certificates:

- Structural Repair and
- Non-Structural Repair.

Structural repair students learn how to diagnose and repair various types of damage, identify structural components, separate spot welds, position and weld new body panels in place. Non-Structural Repair students learn how to repair heavy collision damage using current I-CAR repair standards and procedures.

Graduation Requirements

Certificate in Automotive Refinishing, Structural Repair, and Non-Structural Repair: Cumulative GPA of 2.0 or higher. A minimum of 6 credits earned toward the certificate must be completed at SENMC. Individual academic program may have additional requirements.

AAS in Auto Body Collision and Repair: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or

completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements.

AUTO 111 Automotive Mechanics Basics 4 Credits (4)

Basic maintenance procedures of the major components of the automobile using service repair manuals, hand and power tools, precision measurement equipment, fasteners and chemicals.
View Course Outcomes

AUTO 112 Basic Gasoline Engines 5 Credits (5)

Principles of gasoline engine operation. Identification, design, function of engine components; engine disassembly and reassembly; trouble shooting, and rebuilding heads. (2+6P)

Learning Outcomes
1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 117 Electronic Analysis and Tune-Up of Gasoline Engines 5 Credits (5)

Theory and operation of ignition and emission control systems and fuel system. Use of troubleshooting equipment and diagnostic equipment. (2+6P)
Prerequisite(s): AUTO 120

Learning Outcomes
1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 119 Manual Transmission/Clutch 5 Credits (5)

Manual transmission, transfer cases, and clutch operating principles. Students will diagnose problems, remove and replace, disassemble, repair, and assemble units. (2+6P)

Learning Outcomes
1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 120 Electrical Systems 4 Credits (4)

Troubleshooting and repair of starters, alternators, and associated circuits. Reading electrical diagrams, diagnosis and repair of electrical accessories. (2+4P)
View Course Outcomes

AUTO 125 Brakes 5 Credits (5)

Theory of operation, diagnosis, repair, and maintenance of disc and drum brakes; safety and use of special tools. (2+6P)
View Course Outcomes

AUTO 126 Suspension, Steering, and Alignment 5 Credits (5)

Types of steering systems, suspension maintenance and repair, four-wheel alignment procedures. (2+6P)
View Course Outcomes

AUTO 127 Basic Automatic Transmission 4 Credits (4)

Theory and operation of the automatic transmission; maintenance, troubleshooting, diagnosis, and repair of components. (2+4P)
View Course Outcomes

AUTO 132 Automotive Air-Conditioning and Heating Systems 4 Credits (4)

Theory and operation, reading schematic diagrams, troubleshooting, repair, and replacement operations performed. (2+4P)
View Course Outcomes

AUTO 137 Fuel Systems and Emission Controls 4 Credits (4)

Covers theory and operation of fuel system and emission control. Troubleshooting, vacuum diagrams, overhaul, repair and adjustment of carburetion and fuel injection. Prerequisites: AUTO 117. (2+4P)
View Course Outcomes

AUTO 162 Advanced Non-Structural Repair I 4 Credits (4)

This course will involve the students in all phases of minor non-structural collision damage repairs. It will encompass sheet metal repair, advanced panel replacement and alignment. (2+4P)
View Course Outcomes

AUTO 163 Advanced Non-Structural Repair II 4 Credits (4)

This course is a continuation of AUTO 162 with emphasis in all phases of minor non-structural damage repair. The student will be instructed in sheet metal repair and panel alignment as well as the R&I of automotive glass and related components. (2+4P).
Prerequisite(s): AUTO 162
View Course Outcomes

AUTO 164 Automotive Industry Collision Repair I 4 Credits (4)
This advanced course is a continuation of AUTO 162, and 163. This course will incorporate all areas of major non-structural collision damage repair. Through practical application the student will learn how to effectively repair all heavy collision damage using current I-CAR repair standards and procedures. (2+4P).
Prerequisite(s): AUTO 163
View Course Outcomes

AUTO 165 Automotive Industry Collision Repair II 4 Credits (4)
This advanced course is a continuation of AUTO 164 with emphasis on time efficiency. This course will involve the student in all areas of major collision damage repair. The student will be exposed to all applicable I-CAR industry procedures and standards involved in sheet metal and composite panel repair. (2+4P).
Prerequisite(s): AUTO 164
View Course Outcomes

AUTO 172 Introduction to Automotive Refinishing 4 Credits (4)
This course is designed to incorporate all aspects of surface preparation, paint safety, refinishing materials, and refinishing fundamentals. Students will receive instructions for the application of acrylic enamel and base coat/clear coat refinishing systems. (2+4P)
View Course Outcomes

AUTO 174 Intermediate Automotive Refinishing 4 Credits (4)
This course encompasses all areas of surface preparation, damage repair and refinishing procedures that are necessary for achieving a proper spot repair. Students will also be exposed to safe work habits in the refinishing area and correct automotive detailing procedures. (2+4P)
Prerequisite(s): AUTO 172
View Course Outcomes

AUTO 176 Automotive Color Adjustment & Blending 4 Credits (4)
This course will help develop the skills needed to match any type of paint. It will expose the student to color theory, color evaluation, color matching, and other color adjustment factors. The student will be instructed in multiple panel paint blending techniques as well. (2+4P)
Prerequisite(s): AUTO 174
View Course Outcomes

AUTO 178 Automotive Overall Refinishing 4 Credits (4)
This course encompasses all areas of automotive refinishing. This advanced course is a continuation of AUTO 176 with emphasis in achieving industry refinishing times and standards consistent with that of I-CAR. The student will be exposed to surface preparation and refinishing techniques involved with overall coat/clear coat refinishing system. (2+4P)
Prerequisite(s): AUTO 176
View Course Outcomes

AUTO 181 Frame and Structural Repair 4 Credits (4)
This course will involve the student in all areas of frame and structural damage repairs. Through theory and practical application, the student will learn how to diagnose and repair various types of damage include: mash, twist, sag, and side sway. This course will expose the students to safe work habits while using measuring and straightening equipment. (2+4P)
Prerequisite(s): AUTO 165
View Course Outcomes

AUTO 182 Structural Panel Replacement 4 Credits (4)
This course is a continuation of AUTO 181 with infancies in structural panel replacement. The student will be exposed to frame and unibody measuring equipment and their proper use in sectioning procedures. Through theory and practical application the student will learn how to ID structural components, properly separate spot welds, position and weld new body panels in place. (2+4P)
Prerequisite(s): AUTO 181
View Course Outcomes

AUTO 221 Cooperative Experience I 1-6 Credits
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student will meet in a weekly class. Graded S/U.
View Course Outcomes

Auto Body Collision Repair - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total a minimum 75 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V, VI [1,2]		19
Area I: Communications		
ENGL 2210G (Technical Requirement)		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
AUTO 120	Electrical Systems	4
AUTO 162	Advanced Non-Structural Repair I	4
AUTO 163	Advanced Non-Structural Repair II	4
AUTO 164	Automotive Industry Collision Repair I	4
AUTO 165	Automotive Industry Collision Repair II	4
AUTO 172	Introduction to Automotive Refinishing	4
AUTO 174	Intermediate Automotive Refinishing	4
AUTO 176	Automotive Color Adjustment & Blending	4
AUTO 178	Automotive Overall Refinishing	4
AUTO 181	Frame and Structural Repair	4
AUTO 182	Structural Panel Replacement	4
AUTO 221	Cooperative Experience I	3
OETS 104	Basic Mathematics for Technicians	4
OETS 118	Mathematics for Technicians	3
Approved AUTO Elective Courses		2-3
Total Hours		**75-76**

[1]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

2

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
AUTO 172	Introduction to Automotive Refinishing	4
OETS 104	Basic Mathematics for Technicians	4
Approved AUTO Elective		2-3
Area I: Communications		3
ENGL 2210G (Required)		
Area II: Mathematics		3
	Hours	**16-17**
Spring		
AUTO 120	Electrical Systems	4
AUTO 174	Intermediate Automotive Refinishing	4
OETS 118	Mathematics for Technicians	3
AUTO 221	Cooperative Experience I	3
	Hours	**14**
Second Year		
Fall		
AUTO 162	Advanced Non-Structural Repair I	4
AUTO 176	Automotive Color Adjustment & Blending	4
Area IV: Social/Behavioral Sciences		3
Area V: Humanities		3
	Hours	**14**
Spring		
AUTO 163	Advanced Non-Structural Repair II	4
AUTO 178	Automotive Overall Refinishing	4
	Hours	**8**
Third Year		
Fall		
AUTO 164	Automotive Industry Collision Repair I	4
AUTO 165	Automotive Industry Collision Repair II	4
Area III: Laboratory Science		4
	Hours	**12**
Spring		
AUTO 181	Frame and Structural Repair	4
AUTO 182	Structural Panel Replacement	4
Area VI: Creative and Fine Arts		3
	Hours	**11**
	Total Hours	**75-76**

1

See the General Education section of the catalog for a full list of courses.

Automotive Refinishing - Certificate of Completion

Code	Title	Hours
Technical Requirements		
AUTO 172	Introduction to Automotive Refinishing	4
AUTO 174	Intermediate Automotive Refinishing	4
AUTO 176	Automotive Color Adjustment & Blending	4
AUTO 178	Automotive Overall Refinishing	4
AUTO 221	Cooperative Experience I	3
OETS 118	Mathematics for Technicians	3
Approved AUTO or OETS Elective		3
Total Hours		**25**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
AUTO 172	Introduction to Automotive Refinishing	4
AUTO 176	Automotive Color Adjustment & Blending	4
OETS 118	Mathematics for Technicians	3
Approved AUTO or OETS Elective		3
	Hours	**14**
Spring		
AUTO 174	Intermediate Automotive Refinishing	4
AUTO 178	Automotive Overall Refinishing	4
AUTO 221	Cooperative Experience I	3
	Hours	**11**
	Total Hours	**25**

Non-Structural Collision Repair - Certificate of Completion

Code	Title	Hours
Technical Requirements		
AUTO 162	Advanced Non-Structural Repair I	4
AUTO 163	Advanced Non-Structural Repair II	4
AUTO 164	Automotive Industry Collision Repair I	4
AUTO 165	Automotive Industry Collision Repair II	4
OETS 118	Mathematics for Technicians	3
Approved AUTO or OETS Electives		7
Total Hours		**26**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
AUTO 162	Advanced Non-Structural Repair I	4
AUTO 164	Automotive Industry Collision Repair I (Approved AUTO or OETS Elective)	4
Approved AUTO or OETS Elective		4
	Hours	**12**
Spring		
AUTO 163	Advanced Non-Structural Repair II	4
AUTO 165	Automotive Industry Collision Repair II	4
Approved AUTO or OETS Elective		3
OETS 118	Mathematics for Technicians	3
	Hours	**14**
	Total Hours	**26**

Structural Collision Repair - Certificate of Completion

Code	Title	Hours
Technical Requirements		
AUTO 162	Advanced Non-Structural Repair I	4
AUTO 163	Advanced Non-Structural Repair II	4
AUTO 181	Frame and Structural Repair	4
AUTO 182	Structural Panel Replacement	4
OETS 118	Mathematics for Technicians	3
Approved AUTO or OETS Electives		7
Total Hours		**26**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
AUTO 181	Frame and Structural Repair	4
AUTO 162	Advanced Non-Structural Repair I	4
Approved AUTO or OETS Elective		3
	Hours	**11**
Spring		
AUTO 163	Advanced Non-Structural Repair II	4
AUTO 182	Structural Panel Replacement	4
OETS 118	Mathematics for Technicians	3
Approved AUTO or OETS Elective		4
	Hours	**15**
	Total Hours	**26**

Automotive Technology

The **Automotive Technology** program teaches individuals the technical knowledge and skills needed to repair, service, and maintain all types of automobiles. Students study brake systems, electrical systems, engine performance and repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition

systems. The program is competency-based as required by the National Automotive Foundation (NAFEF).

Graduation Requirements

Certificate in Automotive Technology: A cumulative GPA of 2.0 or higher. A minimum of 12 credits earned toward the certificate must be completed at SENMC. Individual academic program may have additional requirements.

AAS in Automotive Technology: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements. Total credits required for degree: (63)

AUTO 111 Automotive Mechanics Basics 4 Credits (4)
Basic maintenance procedures of the major components of the automobile using service repair manuals, hand and power tools, precision measurement equipment, fasteners and chemicals.
View Course Outcomes

AUTO 112 Basic Gasoline Engines 5 Credits (5)
Principles of gasoline engine operation. Identification, design, function of engine components; engine disassembly and reassembly; trouble shooting, and rebuilding heads. (2+6P)
Learning Outcomes
1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 117 Electronic Analysis and Tune-Up of Gasoline Engines 5 Credits (5)
Theory and operation of ignition and emission control systems and fuel system. Use of troubleshooting equipment and diagnostic equipment. (2+6P)
Prerequisite(s): AUTO 120
Learning Outcomes
1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 119 Manual Transmission/Clutch 5 Credits (5)
Manual transmission, transfer cases, and clutch operating principles. Students will diagnose problems, remove and replace, disassemble, repair, and assemble units. (2+6P)
Learning Outcomes
  1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
  2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
  3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 120 Electrical Systems 4 Credits (4)
Troubleshooting and repair of starters, alternators, and associated circuits. Reading electrical diagrams, diagnosis and repair of electrical accessories. (2+4P)
View Course Outcomes

AUTO 125 Brakes 5 Credits (5)
Theory of operation, diagnosis, repair, and maintenance of disc and drum brakes; safety and use of special tools. (2+6P)
View Course Outcomes

AUTO 126 Suspension, Steering, and Alignment 5 Credits (5)
Types of steering systems, suspension maintenance and repair, four-wheel alignment procedures. (2+6P)
View Course Outcomes

AUTO 127 Basic Automatic Transmission 4 Credits (4)
Theory and operation of the automatic transmission; maintenance, troubleshooting, diagnosis, and repair of components. (2+4P)
View Course Outcomes

AUTO 132 Automotive Air-Conditioning and Heating Systems 4 Credits (4)
Theory and operation, reading schematic diagrams, troubleshooting, repair, and replacement operations performed. (2+4P)
View Course Outcomes

AUTO 137 Fuel Systems and Emission Controls 4 Credits (4)
Covers theory and operation of fuel system and emission control. Troubleshooting, vacuum diagrams, overhaul, repair and adjustment of carburetion and fuel injection. Prerequisites: AUTO 117. (2+4P)
View Course Outcomes

AUTO 162 Advanced Non-Structural Repair I 4 Credits (4)
This course will involve the students in all phases of minor non-structural collision damage repairs. It will encompass sheet metal repair, advanced panel replacement and alignment. (2+4P)
View Course Outcomes

AUTO 163 Advanced Non-Structural Repair II 4 Credits (4)
This course is a continuation of AUTO 162 with emphasis in all phases of minor non-structural damage repair. The student will be instructed in sheet metal repair and panel alignment as well as the R&I of automotive glass and related components. (2+4P).
Prerequisite(s): AUTO 162
View Course Outcomes

AUTO 164 Automotive Industry Collision Repair I 4 Credits (4)
This advanced course is a continuation of AUTO 162, and 163. This course will incorporate all areas of major non-structural collision damage repair. Through practical application the student will learn how to effectively repair all heavy collision damage using current I-CAR repair standards and procedures. (2+4P).
Prerequisite(s): AUTO 163
View Course Outcomes

AUTO 165 Automotive Industry Collision Repair II 4 Credits (4)
This advanced course is a continuation of AUTO 164 with emphasis on time efficiency. This course will involve the student in all areas of major collision damage repair. The student will be exposed to all applicable I-CAR industry procedures and standards involved in sheet metal and composite panel repair. (2+4P).
Prerequisite(s): AUTO 164
View Course Outcomes

AUTO 172 Introduction to Automotive Refinishing 4 Credits (4)
This course is designed to incorporate all aspects of surface preparation, paint safety, refinishing materials, and refinishing fundamentals. Students will receive instructions for the application of acrylic enamel and base coat/clear coat refinishing systems. (2+4P)
View Course Outcomes

AUTO 174 Intermediate Automotive Refinishing 4 Credits (4)
This course encompasses all areas of surface preparation, damage repair and refinishing procedures that are necessary for achieving a proper spot repair. Students will also be exposed to safe work habits in the refinishing area and correct automotive detailing procedures. (2+4P)
Prerequisite(s): AUTO 172
View Course Outcomes

AUTO 176 Automotive Color Adjustment & Blending 4 Credits (4)
This course will help develop the skills needed to match any type of paint. It will expose the student to color theory, color evaluation, color matching, and other color adjustment factors. The student will be instructed in multiple panel paint blending techniques as well. (2+4P)
Prerequisite(s): AUTO 174
View Course Outcomes

AUTO 178 Automotive Overall Refinishing 4 Credits (4)
This course encompasses all areas of automotive refinishing. This advanced course is a continuation of AUTO 176 with emphasis in achieving industry refinishing times and standards consistent with that of I-CAR. The student will be exposed to surface preparation and refinishing techniques involved with overall coat/clear coat refinishing system. (2+4P)
Prerequisite(s): AUTO 176
View Course Outcomes

AUTO 181 Frame and Structural Repair 4 Credits (4)
This course will involve the student in all areas of frame and structural damage repairs. Through theory and practical application, the student will learn how to diagnose and repair various types of damage include: mash, twist, sag, and side sway. This course will expose the students to safe work habits while using measuring and straightening equipment. (2+4P)
Prerequisite(s): AUTO 165
View Course Outcomes

AUTO 182 Structural Panel Replacement 4 Credits (4)
This course is a continuation of AUTO 181 with infancies in structural panel replacement. The student will be exposed to frame and unibody measuring equipment and their proper use in sectioning procedures. Through theory and practical application the student will learn how to ID structural components, properly separate spot welds, position and weld new body panels in place. (2+4P)
Prerequisite(s): AUTO 181
View Course Outcomes

AUTO 221 Cooperative Experience I 1-6 Credits
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student will meet in a weekly class. Graded S/U.
View Course Outcomes

Automotive Technology - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 62 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI. [1]		19-20
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [2]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
AUTO 112	Basic Gasoline Engines	5
AUTO 117	Electronic Analysis and Tune-Up of Gasoline Engines	5
AUTO 119	Manual Transmission/Clutch	5
AUTO 120	Electrical Systems	4
AUTO 125	Brakes	5
AUTO 126	Suspension, Steering, and Alignment	5
AUTO 127	Basic Automatic Transmission	4
or AUTO 132	Automotive Air-Conditioning and Heating Systems	
AUTO 137	Fuel Systems and Emission Controls	4
ENGL 2210G	Professional & Technical Communication	3
OETS 118	Mathematics for Technicians	3
Total Hours		**62-63**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
AUTO 112	Basic Gasoline Engines	5
AUTO 120	Electrical Systems	4
AUTO 126	Suspension, Steering, and Alignment	5
	Hours	**14**
Spring		
AUTO 117	Electronic Analysis and Tune-Up of Gasoline Engines	5
AUTO 119	Manual Transmission/Clutch	5
AUTO 125	Brakes	5
Area II: Mathematics		3
	Hours	**18**
Summer		
#AREA-I-ENGL 1110G (Technical Requirement) [1]		3-4
	Hours	**3-4**
Second Year		
Fall		
OETS 118	Mathematics for Technicians	3
Area III: Laboratory Science		4
Area IV: Social/Behavioral Sciences		3
Area V: Humanities		3
	Hours	**13**
Spring		
AUTO 127 or AUTO 132	Basic Automatic Transmission or Automotive Air-Conditioning and Heating Systems	4
AUTO 137	Fuel Systems and Emission Controls	4
ENGL 2210G	Professional & Technical Communication	3
Area V: Humanities		3
	Hours	**14**
	Total Hours	**62-63**

[1]

See the General Education section of the catalog for a full list of courses.

Automotive Technology - Certificate of Completion

Code	Title	Hours
Technical Requirements		
AUTO 112	Basic Gasoline Engines	5
AUTO 117	Electronic Analysis and Tune-Up of Gasoline Engines	5
AUTO 119	Manual Transmission/Clutch	5
AUTO 120	Electrical Systems	4
AUTO 125	Brakes	5
AUTO 126	Suspension, Steering, and Alignment	5
AUTO 127	Basic Automatic Transmission	4
or AUTO 132	Automotive Air-Conditioning and Heating Systems	

Course	Title	Hours
AUTO 137	Fuel Systems and Emission Controls	4
DRFT 190	Finding and Maintaining Employment	2
OETS 102	Career Readiness Certification Preparation	1
OETS 118	Mathematics for Technicians	3
Total Hours		**43**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
AUTO 112	Basic Gasoline Engines	5
AUTO 120	Electrical Systems	4
AUTO 126	Suspension, Steering, and Alignment	5
	Hours	14
Spring		
AUTO 117	Electronic Analysis and Tune-Up of Gasoline Engines	5
AUTO 125	Brakes	5
AUTO 137	Fuel Systems and Emission Controls	4
	Hours	14
Second Year		
Fall		
AUTO 119	Manual Transmission/Clutch	5
OETS 118	Mathematics for Technicians	3
	Hours	8
Spring		
AUTO 127 or AUTO 132	Basic Automatic Transmission or Automotive Air-Conditioning and Heating Systems	4
DRFT 190	Finding and Maintaining Employment	2
OETS 102	Career Readiness Certification Preparation	1
	Hours	7
	Total Hours	**43**

Building Technology

Building Construction Technology is a program that will prepare you to enter the growing construction industry. Your hands-on education will encompass project management, sustainable (green) building, construction law, blueprint reading, basic surveying, use of wood building materials, concrete work, and weatherization, and masonry, correct use of hand and power tools, safety procedures, math skills, painting, and communication skills to help you work with both colleagues and clients.

Graduation Requirements

Certificate in Building Trades: A cumulative GPA of 2.0 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC. Individual academic program may have additional requirements.

AAS in Building Technology: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements. Total Credits Required for Degree: (60)

BCT 100 Building Trades I 8 Credits (8)
Equipment and general safety. Human relations, building construction surveying, footings, foundation form work, framing, sheathing, insulation. Basic electrical wiring and plumbing. Classroom instruction, on-the-job training, and problem solving. (2+12P)
View Course Outcomes

BCT 101 Introduction to Construction I 2 Credits (2)
Basic safety, including personal protective equipment, how to perform basic construction tasks safely, and what to do if an accident occurs. Includes basic construction methods.
Corequisite(s): BCT 102;BCT 103
Repeatable: up to 2 credits
View Course Outcomes

BCT 102 Introduction to Construction II 2 Credits (2)
Introduction to power and hand tools, blueprints, and basic rigging hardware and techniques.
Corequisite(s): BCT 101;BCT 103
Repeatable: up to 2 credits
View Course Outcomes

BCT 103 Introduction to Construction Laboratory 3 Credits (3)
Provides students the opportunity to practice skills they have acquired in BCT 101 and BCT 102. It includes task-oriented projects in which students can apply many of the skills and knowledge that have been presented throughout the National Center for Construction and Education Research (NCCER) Carpentry Program.
Corequisite(s): BCT 101; BCT 102
Repeatable: up to 3 credits
View Course Outcomes

BCT 104 Woodworking Skills I 3 Credits (3)
Use and care of hand tools and elementary power tools, safety procedures, and supervised project construction. (1+4P)
View Course Outcomes

BCT 105 Woodworking Skills II 3 Credits (3)
Advanced woodworking skills to include use of advanced power tools, power tool safety, and supervised construction. (1+4P)
View Course Outcomes

BCT 110 Blueprint Reading for Building Trades 4 Credits (4)
Same a DRFT 151. (2+4P)
View Course Outcomes

BCT 118 Math for Building Trades 3 Credits (3)
Geometry, algebra, arithmetic, and basic trigonometry pertaining to mathematical applications in the building trades field.
Prerequisite(s): CCDM 103 N
Crosslist: OEET 118, DRFT 118
View Course Outcomes

BCT 200 Building Trades II 8 Credits (8)
Continuation of BCT 100: roofing; exterior and interior finish; masonry; door, window, and cabinet installation. (2+12P)
View Course Outcomes

BCT 221 CO-OP I 3 Credits (3)
View Course Outcomes

BCT 255 Special Topics 6 Credits (6)
Topics to be announced in the Schedule of Classes.
Repeatable: up to 12 credits
View Course Outcomes

BCT 290 Special Problems in Building Technology 1-4 Credits
Individual studies in areas directly related to building technologies.
View Course Outcomes

Building Technology - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60-63 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI [1]		19-20
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [2]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
BCT 100	Building Trades I	8
BCT 104	Woodworking Skills I	3
BCT 105	Woodworking Skills II	3
BCT 118	Math for Building Trades	3
BCT 110	Blueprint Reading for Building Trades	4
BCT 200	Building Trades II	8
DRFT 105	Technical Drawing for Industry	3
DRFT 130	General Building Codes	3
DRFT 160	Construction Take-Offs and Estimating	3
ENGL 2210G	Professional & Technical Communication	3
Total Hours		**60-61**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
BCT 100	Building Trades I	8
BCT 104	Woodworking Skills I	3

DRFT 130	General Building Codes	3
DRFT 151	Construction Principles and Print Reading	3
	Hours	**17**
Spring		
BCT 105	Woodworking Skills II	3
BCT 200	Building Trades II	8
BCT 110	Blueprint Reading for Building Trades	4
Area II: Mathematics		3
	Hours	**18**
Second Year		
Fall		
DRFT 105	Technical Drawing for Industry	3
DRFT 160	Construction Take-Offs and Estimating	3
Area III: Laboratory Science		4
Area I: Communications		3-4
ENGL 1110G	Composition I (Technical Requirement)	
	Hours	**13-14**
Spring		
BCT 118	Math for Building Trades	3
ENGL 2210G	Professional & Technical Communication	3
Area IV: Social/Behavioral Sciences		3
Area V: Humanities		3
	Hours	**12**
	Total Hours	**60-61**

[1]

See the General Education section of the catalog for a full list of courses.

Building Trades - Certificate of Completion

Code	Title	Hours
Technical Requirements		
BCT 100	Building Trades I	8
BCT 104	Woodworking Skills I	3
BCT 105	Woodworking Skills II	3
BCT 110	Blueprint Reading for Building Trades	4
BCT 200	Building Trades II	8
BCT 290	Special Problems in Building Technology	2-4
Total Hours		**28-30**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
BCT 100	Building Trades I	8
BCT 104	Woodworking Skills I	3
BCT 110	Blueprint Reading for Building Trades	4
	Hours	**15**
Spring		
BCT 200	Building Trades II	8
BCT 105	Woodworking Skills II	3

BCT 290	Special Problems in Building Technology	2-4
	Hours	**13-15**
	Total Hours	**28-30**

Business Management

The **Associate of Applied Science in Business Management** prepares students for managerial and supervisory positions in a variety of businesses and industry. The curriculum emphasizes accounting, economics, finance, data analysis, marketing, business communication, and human resources. Students will apply their knowledge and skills through a capstone course as well as a cooperative experience.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements.

- Business Management - Associate in Business Management (p. 65)

BMGT 112 Banks and Your Money 3 Credits (3)
Banking in today's economy: language and documents of banking, check processing, teller functions, deposit function, trust services, bank bookkeeping, loans, and investments.
Repeatable: up to 3 credits
View Course Outcomes

BMGT 140 Principles of Supervision I 3 Credits (3)
Principles of supervision emphasizing planning, organization, rating of employees and procedures to develop good morale. Introduction to interpretation of case studies.
View Course Outcomes

BMGT 201 Work Readiness and Preparation 3 Credits (3)
Instruction in methods of selection, seeking, acquiring and retaining employment. Addresses work success skills, business etiquette, employer expectation and workplace norms.
View Course Outcomes

BMGT 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and instructor. Restricted to: BMGT majors. Graded: S/U Grading (S/U, Audit).
Repeatable: up to 3 credits
View Course Outcomes

BMGT 225 Introduction to Commercial Lending 3 Credits (3)
Commercial lending overview, the lending process, portfolio management, and regulation and business development.
Prerequisite(s): BMGT 112
View Course Outcomes

BMGT 232 PERSONAL FINANCE 3 Credits (3)
View Course Outcomes

BMGT 240 Human Relations 3 Credits (3)
Human interactions in business and industrial settings. Motivation and learning experiences as related to problems of the worker and supervisor. Practical applications of human behavior.
Repeatable: up to 3 credits
View Course Outcomes

BMGT 250 Diversity in the Workplace 3 Credits (3)
Concepts of culture, diversity, prejudice, and discrimination within the domestic workforce/society.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 255 SPECIAL TOPICS II 3 Credits (3)
View Course Outcomes

BMGT 277 Entrepreneurship II - Small Business Management 3 Credits (3)
This course is designed to acquaint the student with the opportunities encountered in the management and operations of a small business enterprise.
Prerequisite(s): ENTR 1110
Repeatable: up to 3 credits
View Course Outcomes

BMGT 280 Introduction to Human Resources 3 Credits (3)
Personnel functions encompassing job analysis, recruitment, selection, training, appraisals, discipline, and terminations.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 282 Introduction to International Business Management 3 Credits (3)
Overview of the social, economic and cultural environment of international business transactions.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 285 Introduction to Manufacturing Operations 3 Credits (3)
Introduction to issues related to manufacturing, including an overview of the production function, product design and development, location, layout, forecasting, planning, purchasing, materials/inventory, and quality management.
Prerequisite(s): BUSA 1110 and (BMGT 140 or MGMT 2110)
View Course Outcomes

BMGT 286 Introduction to Logistics 3 Credits (3)
Overview on the planning, organizing, and controlling of transportation, inventory maintenance, order processing, purchasing, warehousing, materials, handling, packaging, customer service standards, and product scheduling.
View Course Outcomes

BMGT 287 Introduction to Export/Import 3 Credits (3)
Procedures and documentation for exporting and importing products. Emphasis on NAFTA regulations and other U.S. border operations crossings.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 290 Applied Business Capstone 3 Credits (3)
Refines skills and validates courses taken in BMGT program. Business simulations, case studies and projects used to test and improve business practices. Student must be within 25 credits of graduation. Restricted to: BMGT majors.
Prerequisite(s): BUSA 1110, and (BMGT 140 or MGMT 2110), and (BMGT 240 or SOCI 1110G or PSYC 1110G), and MKTG 2110
View Course Outcomes

Business Management - Associate in Business Management

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI [1]		19-20
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [2]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
ECON 1110G	Survey of Economics (Technical Requirement) [2]	
or ECON 211	Macroeconomic Principles	
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
ACCT 2110	Principles of Accounting I (Financial)	3
or OATS 120	Accounting Procedures	
BFIN 2110	Introduction to Finance	3
BLAW 2110	Business Law I	3
BMGT 140	Principles of Supervision I	3
or MGMT 2110	Principles of Management	
BMGT 201	Work Readiness and Preparation	3
BMGT 221	Internship I	3
BMGT 290	Applied Business Capstone	3
BUSA 1110	Introduction to Business	3
ENGL 2210G	Professional & Technical Communication	3
MKTG 2110	Principles of Marketing	3
OATS 106	Business Mathematics	3
or MATH 1215	Intermediate Algebra	
Choose one from the following:		2-3
OECS 211	Word Processing Applications	
OECS 215	Spreadsheet Applications	
OECS 220	Database Application and Design	
General Management Electives		6
BMGT 250	Diversity in the Workplace	
BMGT 277	Entrepreneurship II - Small Business Management	
BMGT 280	Introduction to Human Resources	
BMGT 282	Introduction to International Business Management	
BMGT 285	Introduction to Manufacturing Operations	
BMGT 286	Introduction to Logistics	
BMGT 287	Introduction to Export/Import	
Total Hours		**60-62**

[1]
See the General Education section of the catalog for a full list of courses.

[2]
Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ACCT 2110	Principles of Accounting I (Financial)	3
or OATS 120	or Accounting Procedures	
BMGT 201	Work Readiness and Preparation	3
BUSA 1110	Introduction to Business	3
Area I: Communications		3-4
ENGL 1110G	Composition I (Technical Requirement) [1]	
Area IV: Social/Behavioral Sciences		3
ECON 1110G	Survey of Economics (Technical Requirement) [1]	
or ECON 2110G	or Macroeconomic Principles	
	Hours	**15-16**
Spring		
BMGT 140	Principles of Supervision I	3
or MGMT 2110	or Principles of Management	
OATS 106	Business Mathematics	3
or MATH 1215	or Intermediate Algebra	
Area II: Mathematics		3
Area III: Laboratory Science		4
Choose one from the following:		2-3
OATS 207	Machine Transcription	
OATS 211	Information Processing I	
OECS 215	Spreadsheet Applications	
OECS 220	Database Application and Design	
	Hours	**15-16**
Second Year		
Fall		
BFIN 2110	Introduction to Finance	3
BLAW 2110	Business Law I	3
ENGL 2210G	Professional & Technical Communication	3
General Management Elective [3]		3
General Management Elective [3]		3
	Hours	**15**
Spring		
BMGT 221	Internship I	3
BMGT 290	Applied Business Capstone	3
MKTG 2110	Principles of Marketing	3
Area V: Humanities		3

Area VI: Creative and Fine Arts	3
Hours	**15**
Total Hours	**60-62**

1

Course is a Technical Requirement and must be completed regardless of transfer credits awarded.

2

See the General Education section of the catalog for a full list of courses

3

General Management Courses
- BMGT 250 Diversity in the Workplace
- BMGT 277 Entrepreneurship II - Small Business Management
- BMGT 280 Introduction to Human Resources
- BMGT 282 Introduction to International Business Management
- BMGT 285 Introduction to Manufacturing Operations
- BMGT 286 Introduction to Logistics
- BMGT 287 Introduction to Export/Import

Business Office Technology

The **Business Office Technology** program is for students interested in acquiring or updating skills for employment in an office environment. The curriculum covers basic computer skills as well as software programs such as word processing and spreadsheet applications, record keeping, filing, or database management. At the certificate level, students may complete a Certificate of Business Office Technology. The Associate degree offers concentrations in Accounting and Administrative Assistant.

Graduation Requirements

Certificate in Business Office Technology: A cumulative GPA of 2.0 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC.

Associate of Applied Science in Business Office Technology: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Business Office Technology - Certificate (p. 70)
- Business Office Technology Accounting - Associate of Applied Science (p. 69)
- Business Office Technology Administrative Assistant - Associate of Applied Science (p. 70)

OATS 101 Keyboarding Basics 3 Credits (3)
Covers the skills necessary to touch type on the computer keyboard using correct techniques. This includes the development of speed, accuracy, and formatting of basic business documents.
Repeatable: up to 3 credits
Learning Outcomes
1. Master the touch typing technique; type accurately at 70 wpm.
2. Correctly format documents according to industry standards.
3. Produce documents with 3 or fewer typographical errors per page of copy.

View Course Outcomes

OATS 102 Keyboarding: Document Formatting 3 Credits (3)
Designed to improve keyboarding speed and accuracy; introduce formats of letters, tables and reports. A speed and accuracy competency requirement must be met. (2+2P)
Prerequisite(s): OATS 101 or consent of instructor
Learning Outcomes
1. Introduction to Microsoft Word
2. Learn the proper procedures to create publications suitable for coursework, professional purposes, and personal use

View Course Outcomes

OATS 105 Business English I 3 Credits (3)
Training and application of the fundamentals of basic grammar, capitalization, punctuation, basic writing, sentence structure, and editing skills.
Repeatable: up to 3 credits
View Course Outcomes

OATS 106 Business Mathematics 3 Credits (3)
Mathematical applications for business. (2+2P)
Prerequisite(s): CCDM 103 N or adequate score on math placement exam
Repeatable: up to 3 credits
View Course Outcomes

OATS 110 Records Management 3 Credits (3)
Principles, methods and procedures for the selection, operation and control of manual and automated records systems.
Learning Outcomes
1. Recognize Records Control and Management systems.
2. Utilize vocabulary pertaining to records management.
3. Recognize the importance of using organized, efficient records management systems.
4. Recognize various kinds of filing equipment and supplies (paper and electronic).
5. Apply ARMA (Association for Records Managers and Administrators) rules in alphabetic card and correspondence filing exercises.
6. Apply procedures for maintaining and controlling records including requisitioning, charging-out, returning, and reserving files.
7. Discuss records retention cycle including control procedures for transferring, storing, and destruction of files.
8. Recognize the use of color as a method for improving efficiency in filing systems.

View Course Outcomes

OATS 120 Accounting Procedures 3 Credits (3)
Business accounting principles and procedures. Use of special journals, cash control, and merchandising concepts. Reports for sole proprietorships.
View Course Outcomes

OATS 121 Accounting Procedures II 3 Credits (3)
Continuation of OATS 120, emphasizing accounting principles and procedures for notes and interest, depreciation, partnerships and corporations, cash flow and financial statement analysis. (2+2P)
Prerequisite(s): OATS 120 or ACCT 2110
Repeatable: up to 3 credits
View Course Outcomes

OATS 140 Payroll Accounting 3 Credits (3)
Payroll procedures including payroll tax forms and deposits. (2+2P)
Prerequisite(s): ACCT 2110 or OATS 120
Repeatable: up to 3 credits
View Course Outcomes

OATS 150 Medical Terminology 3 Credits (3)
Understanding of the basic elements of medical words. Use of medical abbreviations. . Cross listed with: NURS 150, AHS 120 and HIT 150.
Crosslist: NURS 150
Learning Outcomes
 1. Demonstrate proficient interpretation of medical abbreviations.
 2. Explain the importance of utilizing medical terms/abbreviations in the medical field
 3. Define medical terms correctly interpret medical language including roots, prefixes and suffixes
 4. Pronounce medical terms correctly
 5. Spell medical terms correctly

View Course Outcomes

OATS 169 Spanish Grammar for Business Administration 3 Credits (3)
Introductory course in Spanish grammar and practical business terms required for the proper application of fundamental oral and written business communication skills for Spanish speakers in the field of business administration.
Prerequisite(s): Spanish-speaking ability and computer keyboarding ability
View Course Outcomes

OATS 170 Office Communications in Spanish I 3 Credits (3)
Develop oral and written communications skills of native or near-native speakers of Spanish. The student will learn basic letter writing skills, customer service techniques, and telephone etiquette in Spanish. Spanish speaking ability is required to enroll in this course. Consent of Instructor required.
Repeatable: up to 3 credits
View Course Outcomes

OATS 171 Office Communications in Spanish II 3 Credits (3)
Develop oral and written communications skills of native or near-native speakers of Spanish. Emphasis placed on learning the office assistant's role within the office environment. Compose complex business correspondence and learn to make international travel arrangements. Consent of Instructor required.
Prerequisite(s): OATS 170, Spanish speaking ability
Repeatable: up to 3 credits
View Course Outcomes

OATS 191 Taking Minutes and Proofreading 3 Credits (3)
Preparation and practice producing minutes suited for different meeting types and purposes. Provides strategies to prepare for meetings, to record proceedings, and to transcribe minutes while incorporating proofreading skills practice. Topics include legal requirements, meeting types, minute formats, and duties/expectations of the minute taker and the meeting chair. Graded: S/U.
Repeatable: up to 3 credits
View Course Outcomes

OATS 202 Keyboarding: Document Production 3 Credits (3)
Further development of keyboarding speed and accuracy. Production of complex letters, memos, tables, reports and business forms. A speed and accuracy competency requirement must be met. (2+2P)
View Course Outcomes

OATS 203 Office Equipment and Procedures I 3 Credits (3)
Office organization, telephone techniques, equipment and supplies, handling meetings, human relations, mail procedures, and travel. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

OATS 205 Accounting Software I 3 Credits (3)
Introduction to accounting software. (2+2P)
Prerequisite(s): Working knowledge of computers and accounting or consent of instructor
Repeatable: up to 3 credits
View Course Outcomes

OATS 207 Machine Transcription 3 Credits (3)
Creating office documents using transcribing equipment and word processing software. Emphasis on proofreading, editing and grammar. (2+2P)
Prerequisite(s): BOT 105
Repeatable: up to 3 credits
View Course Outcomes

OATS 208 Medical Office Procedures 3 Credits (3)
Current computerized and traditional administrative medical office procedures will be introduced. Practical knowledge on managing required record keeping in a medical office environment will be emphasized.
Repeatable: up to 3 credits
Learning Outcomes
 1. Introduce the health student to the skills necessary to assist healthcare professionals in the health medical office and/or facility.
 2. Provide the health professional skills and techniques necessary to assist in the healthcare setting.
 3. Discuss and demonstrate the professional and career responsibilities of an administrative medical assistant.
 4. Communicate effectively as a receptionist in the medical office environment.
 5. Demonstrate appropriate and effective records management including proper filing procedures, handling medical records and drug and prescription records.

View Course Outcomes

OATS 209 Business and Technical Communications 3 Credits (3)
Effective written communication skills and techniques for career success in the work place. Composition of letters, memos, short reports, forms, and proposals, and technical descriptions and directions. Prerequisites: ENGL 1110G and computer keyboarding ability or consent of instructor.
View Course Outcomes

OATS 211 Information Processing I 3 Credits (3)
Defining and applying fundamental information processing concepts and techniques using the current version of leading software. (2+2P)
Repeatable: up to 6 credits
View Course Outcomes

OATS 213 Word Processing I 3 Credits (3)
Operation and function of a word processor. Specific equipment to be announced in the Schedule of Classes. (2+2P)
Prerequisite(s): OATS 101 or keyboarding proficiency
View Course Outcomes

OATS 214 Word Processing II 3 Credits (3)
Advanced operation and functions of a word processor. Specific equipment to be announced in the Schedule of Classes. (2+2P)
Prerequisite(s): OATS 213 or consent of instructor
View Course Outcomes

OATS 215 Spreadsheet Applications 1-3 Credits
Use of spreadsheets to include graphics and business applications.
Repeatable: under different subtitles listed in the Schedule of Classes
Crosslist: OECS 215
View Course Outcomes

OATS 217 Powerpoint Presentation 3 Credits (3)
Comprehensive, hands-on approach to learning and applying basic and advanced features of PowerPoint. These include text enhancements, objects, fills, colors, animation, charts, sound, video, and hyperlinks. Students demonstrate appropriate audience and communication tools to deliver presentations. Prerequisites: OATS 211 or ability to demonstrate keyboarding and Windows proficiency.
View Course Outcomes

OATS 218 Information Processing II 3 Credits (3)
Advanced information processing techniques using current version of leading software. (2+2P)
Prerequisite(s): OATS 211 or consent of instructor
Repeatable: for a maximum of 6 credits
View Course Outcomes

OATS 220 Internship in Business Office Technology 2 Credits (2)
Experience in a supervised office position. Student must work at least eight hours per week. Prerequisites: sophomore standing and consent of instructor.
Repeatable: for a maximum of 4 credits
View Course Outcomes

OATS 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. C- or better in the course is required. Consent of Instructor required. BOT,HIT. majors.
View Course Outcomes

OATS 222 Internship II 1 Credit (1)
Continuation of OATS 221. Consent of Instructor required. OATS & HIT majors. Graded: S/U Grading (S/U, Audit).
Prerequisite(s): OATS 221 and consent of instructor
Repeatable: up to 6 credits
View Course Outcomes

OATS 223 Medical Transcription I 3 Credits (3)
Concepts in medical transcription are introduced on how to produce a variety of reports required in a medical office or facility utilizing accurate medical terminology, spelling, grammar, and document formatting. (2+2P)
Prerequisite(s): HIT 150 or AHS 120 and HIT 158 and OATS 209
Repeatable: up to 3 credits
View Course Outcomes

OATS 228 Medical Insurance Billing 3 Credits (3)
Comprehensive overview of the insurance concepts and applications required for successfully and accurately completing and submitting insurance claims and reimbursement processes for various insurance carriers, both private and government, will be emphasized.
Repeatable: up to 3 credits
View Course Outcomes

OATS 233 Advanced Medical Transcription 3 Credits (3)
Builds upon the concepts introduced in Medical Transcription I providing greater understanding of how to produce advanced reports dictated by physicians with increasing speed and accuracy. Emphasis will be on proofreading and editing of operative reports, patient history and physicals, office notes, labor and delivery reports, consultation reports, discharge summaries, and other medical reports. Consent of Instructor required. (2+2P)
Prerequisite(s): OATS 223 and HIT 130
Repeatable: up to 3 credits
View Course Outcomes

OATS 239 Personal Development 3 Credits (3)
Development of a marketable, employable office systems person, to include interview, voice, manners, and apparel.
View Course Outcomes

OATS 240 Introduction to Individual Taxation 3 Credits (3)
Overview of Individual Federal Taxation; awareness of tax problems pitfalls and planning opportunities; focus on individual personal financial concerns and tax planning. One semester of accounting principles/procedures is recommended.
View Course Outcomes

OATS 241 Auditing and Business Issues 3 Credits (3)
Introduction to basic auditing concepts, the purpose for the auditing process, and requirements of persons assisting with the audit process. The course will also deal with issues of business law including contracts, sales, torts, strict liability, and business ethics.
Prerequisite(s): OATS 120 or ACCT 2110
Repeatable: up to 3 credits
View Course Outcomes

OATS 244 Tax Preparation 3 Credits (3)
Introduces basic federal and state tax codes for preparing individual income tax returns. Emphasis on use of tax software.
Prerequisite(s): keyboarding proficiency
View Course Outcomes

OATS 250 Electronic Office Systems 3 Credits (3)
Management of the electronic office. Office use of computers, printers, fax machines, copiers, and scanner concepts will be covered. (2+2P)
Prerequisite(s): OATS 211
View Course Outcomes

OATS 255 Special Topics 1 Credit (1)
Specific subjects to be announced in the Schedule of Classes.
View Course Outcomes

OATS 260 Bookkeeping Simulation Capstone 3 Credits (3)
Refines the professional and technical skills students have learned while completing the Bookkeeping Assistant Option curriculum by demonstrating how coursework ties together. Designed as a bookkeeping assistant capstone course. (2+2P)
Prerequisite(s): OATS 121 or ACCT 2110, OATS 140, OATS 205, and OATS 244, or consent of instructor
View Course Outcomes

OATS 270 Office Administration Technology Capstone 3 Credits (3)
Refines professional skills learned in the BOT program and ties all BOT coursework together. Consent of Instructor required.
Prerequisite(s): OATS 102 or OATS 129; and OATS 120; and OAT S 209 or ENGL 2210G; and OATS 211 or OECS 211
Repeatable: up to 3 credits
Learning Outcomes
1. Construct professional, error-free business documents that demonstrate appropriate formats and ideas in a clear, concise, and correct written and spoken language.
2. Utilize effective administrative skills to enhance the productive operation of the workplace.
3. Demonstrate professional behaviors and workplace ethics for the professional office environment.
4. Demonstrate proficiency in the use of productivity software in business applications.

View Course Outcomes

Business Office Technology Accounting - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses are required from Area I, II, III, IV, V and VI [1]		19-20
Area I: Communications		
ENGL 1110G (Technical Requirement) [2]		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
ECON 1110G, ECON 2210G, or ECON 2120G (Technical Requirement) [2]		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
ACCT 1210	Income Taxation	3
ACCT 2110	Principles of Accounting I (Financial)	3
ACCT 2115	Survey of Accounting	3
ACCT 2120	Principles of Accounting II (Managerial)	3
BLAW 2110	Business Law I	3
BUSA 1115	Business English I	3
BUSA 1180	Business Math	3
BUSA 1110	Introduction to Business	3
BUSA 1210	Records Management	3
BUSA 2175	Personal Development	3
OATS 102	Keyboarding: Document Formatting	3
OECS 211	Word Processing Applications	2-3
OECS 215	Spreadsheet Applications	3
OECS 200	Accounting on Microcomputers	3
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
OATS 102	Keyboarding: Document Formatting	3
BUSA 1110	Introduction to Business	3
BUSA 1180	Business Math	3
Area I: Communications		3-4
ENGL 1110G	Composition I (Technical Requirement)	
Area IV: Social/Behavioral Sciences		3
- ECON 1110G, ECON 2120G, Or ECON 2210G (Technical Requirement)		
	Hours	15-16
Spring		
ACCT 2115	Survey of Accounting	3
BUSA 1210	Records Management	3
OECS 211	Word Processing Applications	2-3
OECS 215	Spreadsheet Applications	3
Area II: Mathematics [1]		3
	Hours	14-15
Second Year		
Fall		
ACCT 2110	Principles of Accounting I (Financial)	3
BLAW 2110	Business Law I	3
BUSA 1115	Business English I	3
BUSA 2175	Personal Development	3
Area V: Humanities [1]		3
	Hours	15
Spring		
ACCT 1210	Income Taxation	3
ACCT 2120	Principles of Accounting II (Managerial)	3
OECS 200	Accounting on Microcomputers	3
Area VI: Creative and Fine Arts [1]		3

Area III: Laboratory Science [1]		4
Hours		**16**
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

Business Office Technology Administrative Assistant - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses are required from Area I, II, III, IV, V and VI [1]		19-20
Area I: Communications		
ENGL 1110G (Technical Requirement)		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
ECON 1110G, ECON 2110G, or ECON 2120G (Technical Requirement)		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
ACCT 2115	Survey of Accounting	3
BLAW 2110	Business Law I	3
BUSA 1110	Introduction to Business	3
BUSA 1180	Business Math	3
BUSA 1210	Records Management	3
BUSA 2175	Personal Development	3
ENGL 2210G	Professional & Technical Communication	3
OATS 102	Keyboarding: Document Formatting	3
OATS 191	Taking Minutes and Proofreading	3
OATS 202	Keyboarding: Document Production	3
OECS 211	Word Processing Applications	2-3
OECS 215	Spreadsheet Applications	3
OECS 280	Desktop Publishing I	3
or FDMA 1120	Desktop Publishing I	
OECS 220	Database Application and Design	3
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
BUSA 1110	Introduction to Business	3
BUSA 1180	Business Math	3
OATS 102	Keyboarding: Document Formatting	3
Area I: Communications		3-4
ENGL 1110G	Composition I (Required)	
Area IV: Social/Behavioral Sciences		3
ECON 1110G, ECON 2110G, or ECON 2120G		
Hours		**15-16**
Spring		
ACCT 2115	Survey of Accounting	3
BUSA 1210	Records Management	3
OECS 211	Word Processing Applications	2-3
OECS 215	Spreadsheet Applications	3
Area II: Mathematics [1]		3
Hours		**14-15**
Second Year		
Fall		
BUSA 2175	Personal Development	3
ENGL 2210G	Professional & Technical Communication	3
OECS 280	Desktop Publishing I	3
or FDMA 1120	or Desktop Publishing I	
Area III: Laboratory Science [1]		4
Area V: Humanities [1]		3
Hours		**16**
Spring		
BLAW 2110	Business Law I	3
OATS 191	Taking Minutes and Proofreading	3
OATS 202	Keyboarding: Document Production	3
OECS 220	Database Application and Design	3
Area VI: Creative and Fine Arts [1]		3
Hours		**15**
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

Business Office Technology - Certificate

Code	Title	Hours
Technical Requirements		
ACCT 2115	Survey of Accounting	3
BLAW 2110	Business Law I	3
BUSA 1110	Introduction to Business	3
BUSA 1210	Records Management	3
ENGL 1110G	Composition I (Required)	4
ENGL 2210G	Professional & Technical Communication	3
OATS 102	Keyboarding: Document Formatting	3

OECS 211	Word Processing Applications	3
OECS 215	Spreadsheet Applications	3
Choose one from the following:		3
ECON 1110G	Survey of Economics	
ECON 2110G	Macroeconomic Principles	
ECON 2120G	Microeconomic Principles	
Total Hours		**31**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
BLAW 2110	Business Law I	3
BUSA 1110	Introduction to Business	3
Choose one from the following:		3
ECON 1110G	Survey of Economics	
ECON 2110G	Macroeconomic Principles	
ECON 2120G	Microeconomic Principles	
Area I: Communications		
ENGL 1110G	Composition I	4
OATS 102	Keyboarding: Document Formatting	3
	Hours	**16**
Spring		
ACCT 2115	Survey of Accounting	3
BUSA 1210	Records Management	3
ENGL 2210G	Professional & Technical Communication	3
OECS 211	Word Processing Applications	3
OECS 215	Spreadsheet Applications	3
	Hours	**15**
	Total Hours	**31**

Computer and Information Technology

The **Certificate in Microcomputer Applications** is designed for students interested in microcomputer operations and systems. Upon completion, students are prepared to take the Microsoft Office Specialist certification exams in Word and Excel.

The **Associate of Applied Science Degree in Computer and Information Technology** equips students for employment which involves the analysis and design of computerized information and management decision systems. Graduates of the program are prepared to take the CompTIA A+ certification exam which demonstrates competency in the maintenance of PCs, mobile devices, operating systems and printers. The program is broken down into three concentrations. Students must take 15 credit hours in one of the following concentrations to obtain their degree in that field: IT Specialist Concentration, Networking Concentration or Programming Concentration.

Graduation Requirements

Certificate in Microcomputer Applications: A cumulative GPA of 2.0 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC.

AAS in Computer and Information Technology: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Computer and Information Technology IT Specialist - Associate of Applied Science (p. 74)
- Computer and Information Technology Networking - Associate of Applied Science (p. 75)
- Computer and Information Technology Programming - Associate of Applied Science (p. 76)
- Microcomputer Applications - Certificate (p. 77)

OECS 101 Computer Basics 1 Credit (1)
Hands-on instruction to introduce computer use and commonly used software. Graded S/U.
View Course Outcomes

OECS 105 Introduction to Information Technology 3 Credits (3)
Examination of information systems and their impact on commerce, education, and personal activities. Utilization of productivity tools for communication, data analysis, information management and decision-making.
Repeatable: up to 3 credits
View Course Outcomes

OECS 110 Introduction to Power Point 1-3 Credits
An introduction to Power Point software to develop business presentations. Includes concepts of basic presentation methods and graphic design principles. Students will create and deliver presentations using text, charts, digitized images, and sound.
View Course Outcomes

OECS 125 Operating Systems 1-3 Credits
Installation, configuration and optimization of current operating systems.
View Course Outcomes

OECS 128 Operating Systems Linux/Unix 3 Credits (3)
Installation, configuration, and use of Linux/Unix operating system software and utilities including hardware management, file management, use of command line, and scripting.
Learning Outcomes
 1. Introduction to Linux
 2. Introduction to Installing Linux
 3. Fedora and RedHat Enterprise Linux fundamentals
 4. The SHELL
 5. The LINUX filesystem
 6. Networking and the Internet
 7. The Bourne Again Shell (bash)
 8. System Administration Core Concepts
 9. Files, Directories, and Filesystems 1
10. Finding, Downloading, and installing the software 1
11. Printing 1
12. Building a Linux Kernel 1
13. Administration tasks 1
14. Configuring and monitoring a LAN 1
15. Programming the Bourne Again Shell (bash) 1
16. The Python Programming LanguagePoints/Grading conversion:

View Course Outcomes

OECS 145 Mobile Application Development 1-3 Credits
Introduction to elements of mobile application coding including concepts, design strategies, tools needed to create, test and deploy applications for mobile devices.
Repeatable: up to 6 credits
View Course Outcomes

OECS 155 Special Topics Introductory Computer Technology 0.5-3 Credits
Topics to be announced in the Schedule of Classes.
Repeatable: up to 8 credits
View Course Outcomes

OECS 185 PC Maintenance and Repair I 1-3 Credits
Introduction to most common types of PC configurations, installations, and failures. This course will explore troubleshooting skills for maintaining and repairing common hardware and software related problems.
Repeatable: up to 3 credits
View Course Outcomes

OECS 192 C++ Programming I 3 Credits (3)
Development of skills in programming using the C++ programming language.
View Course Outcomes

OECS 195 Java Programming I 1-3 Credits
Developing of skills in programming using the Java programming language.
View Course Outcomes

OECS 200 Accounting on Microcomputers 3 Credits (3)
Fundamental accounting principles using popular microcomputer software to include G/L, A/R, A/P, purchase order, billing, inventory, and forecasting modules.
Prerequisite(s): ACCT 2110 or OATS 121
Learning Outcomes
 1. Effective communication skills in reading, writing, listening, and speaking.
 2. Basic critical thinking skills including problem identification, evidence acquisition, evidence evaluation, and problem solving and analytical decision making.
 3. An understanding of personal and social responsibility
 4. An ability to apply the fundamental concepts of quantitative reasoning in mathematics and science.

View Course Outcomes

OECS 204 Linux Operating System 1-3 Credits
Install and configure the Linux operating system on X86 systems. Covers issues involved in maintaining operating system, networking, creating and managing users, and installing and updating software. General procedures for working with operating system includes maintaining disk space, preserving system security, and other related topics.
Repeatable: up to 3 credits
View Course Outcomes

OECS 207 Windows 3 Credits (3)
Covers local installation, configuration of core local services, managing users, and the general local management and maintenance of Windows workstations.
Prerequisite(s)/Corequisite(s): OECS 185
Repeatable: up to 6 credits
View Course Outcomes

OECS 208 Internet Applications 1-3 Credits
Survey of the Internet to include e-mail, file transfer, current search techniques, the World Wide Web and basic Web page development.
Repeatable: up to 6 credits
View Course Outcomes

OECS 209 Computer Graphic Arts 1-3 Credits
Basic graphics composition using computer programs to include editing and manipulating graphic images, clip-art, and printing of pictures.
Prerequisite(s): OECS 105, BCIS 1110, or OECS 10
Repeatable: for a maximum of 6 credits under different subtitles listed in the Schedule of Classes
View Course Outcomes

OECS 211 Word Processing Applications 1-3 Credits
Basic word processing to include composing, editing, formatting, and printing of documents. Prerequisites: BCIS 1110 or OECS 105
Repeatable: under different subtitles listed in the Schedule of Classes for a maximum of 6 credits
View Course Outcomes

OECS 215 Spreadsheet Applications 1-3 Credits
Use of spreadsheets to include graphics and business applications.
Prerequisites: BCIS 1110 or OECS 105
Repeatable: for a maximum of 6 credits
Learning Outcomes
1. Create and format worksheets/workbooks using features of Microsoft Excel including chart data, styles, and themes.
2. Utilize formulas and functions to create worksheets suitable for professional and personal purposes.
3. Utilize the advanced function of Excel to create templates, work with multiple worksheet, advanced sorting and filtering and data analysis.

View Course Outcomes

OECS 220 Database Application and Design 1-3 Credits
Creating, sorting, and searching of single and multifile databases to include report generation and programming database commands.
Prerequisite(s): BCIS 1110 OR E T 120 OR OECS 105
Repeatable: for a maximum of 6 credits under different subtitles listed in the Schedule of Classes
View Course Outcomes

OECS 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. Consent of Instructor required. OECS majors. Graded: S/U Grading (S/U, Audit).
Prerequisite(s): Consent of instructor
Repeatable: up to 3 credits
View Course Outcomes

OECS 222 Internship II 1-3 Credits
Continuation of OECS 221. Each credit requires specified number of hours of on-the-job work experience. Consent of Instructor required. OECS majors. Graded: S/U Grading (S/U, Audit).
Prerequisite(s): OECS 221 and consent of instructor
Repeatable: up to 3 credits
View Course Outcomes

OECS 223 Web Design for Business 3 Credits (3)
Design and create a website using HTML, CSS, web development tools and industry-recognized software while applying best practices in site management and business web presence.
View Course Outcomes

OECS 227 Computer Applications for Technicians 3 Credits (3)
Computer applications for service technicians in various disciplines. Hardware and software applications explored. Includes operating systems, high level programming, and networking hardware and software.
View Course Outcomes

OECS 230 Data Communications and Network I 1-3 Credits
Definition of data communication; survey of hardware applications and teleprocessor software; examination and design of networks.
Prerequisite(s): OECS 185
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 231 Data Communications and Network II 1-3 Credits
Installation and application of popular microcomputer network software.
Prerequisite(s): OECS 230
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 234 Linux Server 3-4 Credits
This course addresses the implementation and support needs of IT professionals that are planning to deploy and support Linux Server(s). It provides in-depth, hands-on training for planning, implementation, management and support of Linux networking services.
Prerequisite(s)/Corequisite(s): OECS 204
Repeatable: up to 8 credits
View Course Outcomes

OECS 235 Structured Query Language (SQL) 1-3 Credits
Installation, configuration, administration, and troubleshooting of SQL client/server database management system.
Prerequisite(s)/Corequisite(s): OECS 220
Repeatable: up to 3 credits
View Course Outcomes

OECS 237 Windows Server 3-4 Credits
This course addresses the implementation and support needs of IT professionals that are planning to deploy and support Microsoft Windows Server Active Directory Domain Services in medium to large businesses. It provides in-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows Active Directory services.
Prerequisite(s)/Corequisite(s): OECS 207
Repeatable: up to 4 credits
View Course Outcomes

OECS 245 Game Programming I 3 Credits (3)
Development of programming skills for games and animation using current programming languages and tools.
Prerequisite(s): consent of instructor
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 246 Game Programming 3 Credits (3)
Continuation of OECS 245.
Prerequisite(s): OECS 245
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 253 Applied Data Analysis and Management 3 Credits (3)
Applied use of advanced spreadsheet tools for data analysis and database tools for data and information management. Connect emerging topics in business to tools used in analyzing data and making raw data useful for business decision making.
Prerequisite(s): BCIS 1110
View Course Outcomes

OECS 255 Special Topics 1-4 Credits
Topics to be announced in the Schedule of Classes.
View Course Outcomes

OECS 261 Introduction to Networks 3-4 Credits
Introduction to networking principles including the practical and conceptual skills for understanding basic networking, planning and designing networks, implementing IP addressing schemes, examining the OSI and TCP/IP layers, and performing basic configurations for routers and switches. Aligns to the first course of the Cisco Networking Academy CCNA curriculum.
View Course Outcomes

OECS 262 Essentials of Routing and Switching 3-4 Credits
Examination of the architecture, components, and operations of routers and switches in a small network. Student will learn how to configure, verify and troubleshoot: routers and switches, static routing, default routing, VLANs, and ACLs. Aligns to the second course of the Cisco Networking Academy CCNA curriculum.
Prerequisite(s)/Corequisite(s): OECS 261
Repeatable: up to 4 credits
View Course Outcomes

OECS 263 Network Fundamentals 3-4 Credits
Fundamentals of networking architecture, components, and operations including practical and conceptual skills using routers and switches. Student will learn how to configure, verify and troubleshoot static routing, default routing, VLANs, and ACLs. This course aligns to the third course of the Cisco Networking Academy CCNA curriculum.
Prerequisite(s)/Corequisite(s): OECS 262
Repeatable: up to 4 credits
View Course Outcomes

OECS 264 Network Routing Protocols 3-4 Credits
Fundamentals of routing protocols for troubleshooting advanced network operations. Covers common networking issues such as RIP, OSPF, and EIGRP for IPv4 and IPv6 networks. This course aligns to the fourth course of the Cisco Networking Academy CCNA curriculum.
Prerequisite(s)/Corequisite(s): OECS 263
Repeatable: up to 4 credits
View Course Outcomes

OECS 269 Network Security 3 Credits (3)
Fundamentals of design and implementation of network security solutions that will reduce the risk of system vulnerability.
Prerequisite(s): OECS 204 or OECS 207 or OECS 261 or consent of instructor
Repeatable: up to 8 credits
View Course Outcomes

OECS 275 PC Maintenance and Repair II 1-3 Credits
Continuation of OECS 185.
Prerequisite(s): OECS 185
Repeatable: up to 6 credits
View Course Outcomes

OECS 280 Desktop Publishing I 3 Credits (3)
Design and production of publication materials to fill the needs of business communities, using a microcomputer. Prerequisites: either BCIS 1110, OECS 105.
Repeatable: for a maximum of 6 credits
Crosslist: OATS 280
View Course Outcomes

OECS 290 Computer Technology Capstone 1-3 Credits
Refines skills learned in the OECS program. Culminates in a review and practice of advanced software applications. Restricted to: OECS & OECT majors.
Prerequisite(s): (OECS 125, OECS 128, OECS 207, OR OECS 203) AND (OECS 185 OR E T 283)
Repeatable: up to 3 credits
View Course Outcomes

OECS 299 Independent Study 1-3 Credits
Specific subjects to be determined based on need.
View Course Outcomes

Computer and Information Technology IT Specialist - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses are required from Area I, II, III, IV, V and VI [1]		19-20
Area I: Communications		
ENGL 1110G (Technical Requirement) [2]		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
ECON 1110G, ECON 2110G, or ECON 2120G (Technical Requirement) [2]		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
BCIS 1110	Fundamentals of Information Literacy and Systems	3
ENGL 2210G	Professional & Technical Communication	3
MATH 1215	Intermediate Algebra	3
OECS 128	Operating Systems Linux/Unix	3
OECS 185	PC Maintenance and Repair I	3
or OECS 227	Computer Applications for Technicians	
OECS 207	Windows	3
OECS 220	Database Application and Design	3
OECS 261	Introduction to Networks	3
Choose one Business course from the following:		3
ACCT 2110	Principles of Accounting I (Financial)	
BFIN 2110	Introduction to Finance	
BUSA 1110	Introduction to Business	
MGMT 2110	Principles of Management	
MKTG 2110	Principles of Marketing	
Approved Computer Courses [3]		14-15
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

[3]

Any BCIS, C S, CSEC, CTEC, DRFT, E E, FDMA, or OECS course excluding courses used to fulfill Technical Requirements.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
BCIS 1110	Fundamentals of Information Literacy and Systems	3
MATH 1215	Intermediate Algebra	3
Area I: Communications		3-4
ENGL 1110G	Composition I	
Business Course [3]		3
Area V: Humanities [1]		3
Approved computer-related courses [2]		2-3
	Hours	**17-19**
Spring		
ENGL 2210G	Professional & Technical Communication	3
OECS 128	Operating Systems Linux/Unix	3
OECS 207	Windows	3
Area II: Mathematics [1]		3
Approved computer-related course [2]		3
	Hours	**15**
Second Year		
Fall		
OECS 220	Database Application and Design	3
Select one from the following:		3
E T 283	Hardware PC Maintenance	
OECS 185	PC Maintenance and Repair I	
OECS 227	Computer Applications for Technicians	
Choose one from the following:		3
E T 153	Fundamentals of Networking Communications	
E T 155	Network Operating Systems I	
OECS 261	Introduction to Networks	
Approved computer-related courses		3
Approved computer-related courses [2]		3
	Hours	**15**
Spring		
Area III: Laboratory Science [1]		4
Area IV: Social/Behavioral Sciences		3
ECON 1110G	Survey of Economics	
or ECON 2110G	or Macroeconomic Principles	
or ECON 2120G	or Microeconomic Principles	
Area VI: Creative and Fine Arts [1]		3
Approved computer-related courses [2]		3
	Hours	**13**
	Total Hours	**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Any OECS course not required in the technical requirements.

[3]

Business/Computer Electives:
- ACCT 2110 Principles of Accounting I (Financial)
- BCIS 1110 Fundamentals of Information Literacy and Systems
- BUSA 1110 Introduction to Business
- BFIN 2110 Introduction to Finance
- MGMT 2110 Principles of Management
- MKTG 2110 Principles of Marketing

Computer and Information Technology Networking - Associate of Applied Science

Students must complete all degree requirements to total at least 60-62 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V and VI [1,2]		19-20
Area I: Communications		
ENGL 1110G (Technical Requirement)		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
ECON 1110G, ECON 2110G, or ECON 2120G (Technical Requirement)		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
BCIS 1110	Fundamentals of Information Literacy and Systems	3
ENGL 2210G	Professional & Technical Communication	3
MATH 1215	Intermediate Algebra (or Approved technology-related math course)	3
OECS 128	Operating Systems Linux/Unix	3
OECS 185 or OECS 227	PC Maintenance and Repair I / Computer Applications for Technicians	3
OECS 207	Windows	3
OECS 220	Database Application and Design	3
OECS 261	Introduction to Networks	3
Choose one Business course from the following:		3
ACCT 2120	Principles of Accounting II (Managerial)	
BFIN 2110	Introduction to Finance	
BUSA 1110	Introduction to Business	
MGMT 2110	Principles of Management	
MKTG 2110	Principles of Marketing	
Select a minimum of 14 credits from the following:		14-15
OECS 230	Data Communications and Network I	
OECS 231	Data Communications and Network II	
OECS 234	Linux Server	
OECS 235	Structured Query Language (SQL)	

OECS 262	Essentials of Routing and Switching	
OECS 263	Network Fundamentals	
OECS 264	Network Routing Protocols	
OECS 269	Network Security	
Total Hours		**60-62**

1

Course is a Technical Requirements and must be completed regardless of transfer credit awarded.

2

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I (Area I: Communications) [1,2]	4
MATH 1215	Intermediate Algebra (or alternate)	3
Select one from the following:		3
BCIS 1110	Fundamentals of Information Literacy and Systems	
E T 120	Computation Software	
Concentration course [3]		3
Approved programming-related course		3
	Hours	**16**
Spring		
ECON 1110G or ECON 2110G or ECON 2120G	Survey of Economics (Area IV: Social/Behavioral Sciences) or Macroeconomic Principles or Microeconomic Principles	3
ENGL 2210G	Professional & Technical Communication (Area VII: Flexible 3 (General Education Elective))	3
OECS 128	Operating Systems Linux/Unix	3
OECS 207	Windows	3
Concentration course [3]		3
	Hours	**15**
Summer		
Area VI: Creative and Fine Arts [1,2]		3
Area III: Laboratory Science [1,2]		3
	Hours	**6**
Second Year		
Fall		
OECS 220	Database Application and Design	3
Select one from the following:		3
E T 283	Hardware PC Maintenance	
OECS 185	PC Maintenance and Repair I	
OECS 227	Computer Applications for Technicians	
Choose one from the following:		3-4
E T 153	Fundamentals of Networking Communications	
E T 155	Network Operating Systems I	
OECS 261	Introduction to Networks	
Concentration course [3]		3

Business/Computer elective Course [4]		3
	Hours	**15-16**
Spring		
Area II: Mathematics [1,2]		3
Area V: Humanities [1,2]		3
Concentration course [3]		3
OECS 290 or OECS 255	Computer Technology Capstone or Special Topics	3
Concentration course [3]		3
	Hours	**15**
	Total Hours	**67-68**

1

Each course selected must be from a different area and students cannot take multiple courses in the same area.

2

See the General Education section of the catalog for a full list of courses.

3

See the Requirements Tab for specific courses.

4

Business/Computer Electives:
- ACCT 2120 Principles of Accounting II (Managerial)
- BCIS 1110 Fundamentals of Information Literacy and Systems
- BUSA 1110 Introduction to Business
- E T 120 Computation Software
- BFIN 2110 Introduction to Finance
- MGMT 2110 Principles of Management
- MKTG 2110 Principles of Marketing

Computer and Information Technology Programming - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60-64 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI. [1,2]		19-20
Area I: Communications		
ENGL 1110G (Technical Requirement) [1]		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
ECON 1110G, ECON 2110G, or ECON 2120G (Technical Requirement) [1]		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
BCIS 1110	Fundamentals of Information Literacy and Systems	3

ENGL 2210G	Professional & Technical Communication	3
MATH 1215	Intermediate Algebra	3
OECS 128	Operating Systems Linux/Unix	3
OECS 185	PC Maintenance and Repair I	3
or OECS 227	Computer Applications for Technicians	
OECS 207	Windows	3
OECS 220	Database Application and Design	3
OECS 261	Introduction to Networks	3-4
OECS 290	Computer Technology Capstone	3
or OECS 255	Special Topics	
Choose one Business course from the following:		
ACCT 2120	Principles of Accounting II (Managerial)	
BFIN 2110	Introduction to Finance	
BUSA 1110	Introduction to Business	
MGMT 2110	Principles of Management	
MKTG 2110	Principles of Marketing	
Select a minimum of 14 credits from the following:		14-15
OECS 192	C++ Programming I	
OECS 195	Java Programming I	
OECS 235	Structured Query Language (SQL)	
OECS 245	Game Programming I	
OECS 255	Special Topics	
OECS 290	Computer Technology Capstone	
Total Hours		**60-63**

[1]

Course is a Technical Requirement and must be completed regardless of transfer credits awarded.

[2]

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I (Area I: Communications)	4
MATH 1215	Intermediate Algebra (or alternate)	3
Select one from the following:		3
BCIS 1110	Fundamentals of Information Literacy and Systems	
E T 120	Computation Software	
Concentration course [3]		3
Approved programming-related course		3
	Hours	**16**
Spring		
OECS 128	Operating Systems Linux/Unix	3
ENGL 2210G	Professional & Technical Communication	3
ECON 1110G	Survey of Economics	3
or ECON 2110G	or Macroeconomic Principles	
or ECON 2120G	or Microeconomic Principles	
OECS 207	Windows	3

Concentration course [3]		3
	Hours	**15**
Summer		
Area II: Mathematics [1, 2]		3
Area V: Humanities [1, 2]		3
	Hours	**6**
Second Year		
Fall		
OECS 220	Database Application and Design	3
Select one from the following:		3
E T 283	Hardware PC Maintenance	
OECS 185	PC Maintenance and Repair I	
OECS 227	Computer Applications for Technicians	
Choose one from the following:		3-4
E T 153	Fundamentals of Networking Communications	
E T 155	Network Operating Systems I	
OECS 261	Introduction to Networks	
Concentration course [3]		3
Business/Computer elective Course [4]		3
	Hours	**15-16**
Spring		
Concentration course [3]		3
Area III: Laboratory Science [1, 2]		3
Area VI: Creative and Fine Arts [1, 2]		3
OECS 290	Computer Technology Capstone	3
or OECS 255	or Special Topics	
Concentration course [3]		3
	Hours	**15**
	Total Hours	**67-68**

[1]

Each course selected must be from a different area and students cannot take multiple courses in the same area.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

See the Requirements Tab for specific courses.

[4]

Business/Computer Electives:

- ACCT 2120 Principles of Accounting II (Managerial)
- BCIS 1110 Fundamentals of Information Literacy and Systems
- BUSA 1110 Introduction to Business
- E T 120 Computation Software
- BFIN 2110 Introduction to Finance
- MGMT 2110 Principles of Management
- MKTG 2110 Principles of Marketing

Microcomputer Applications - Certificate

Code	Title	Hours
Technical Requirements		
ACCT 2110	Principles of Accounting I (Financial)	3
or OATS 211	Information Processing I	

BCIS 1110	Fundamentals of Information Literacy and Systems	3
COMM 1115G	Introduction to Communication	3
OECS 110	Introduction to Power Point	1
OECS 125	Operating Systems	3
OECS 200	Accounting on Microcomputers	3
OECS 209	Computer Graphic Arts	3
OECS 211	Word Processing Applications	3
OECS 215	Spreadsheet Applications	3
OECS 220	Database Application and Design	3
OECS 255	Special Topics	1-4
OECS 280	Desktop Publishing I	3
Total Hours		**32-35**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ACCT 2110 or OATS 121	Principles of Accounting I (Financial) or Accounting Procedures II	3
BCIS 1110	Fundamentals of Information Literacy and Systems	3
OECS 125	Operating Systems	3
OECS 211	Word Processing Applications	3
OECS 220	Database Application and Design	3
OECS 215	Spreadsheet Applications	3
	Hours	18
Spring		
COMM 1115G	Introduction to Communication	3
OECS 110	Introduction to Power Point	1
OECS 209	Computer Graphic Arts	3
OECS 200	Accounting on Microcomputers	3
OECS 255	Special Topics	1-4
OECS 280	Desktop Publishing I	3
	Hours	14-17
	Total Hours	32-35

Criminal Justice

The **Associate in Criminal Justice** introduces the graduate to three facets of the Criminal Justice System (e.g., Police, Courts, and Corrections). This degree plan is broadly interdisciplinary in nature embracing the study of the humanities, law, and natural, behavioral, and social sciences. The curriculum seeks to balance theoretical inquiry with applied knowledge.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher and a cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Criminal Justice - Associate in Criminal Justice (p. 79)

CJUS 1110G Introduction to Criminal Justice 3 Credits (3)
This course provides an overall exploration of the historical development and structure of the United States criminal justice system, with emphasis on how the varied components of the justice system intertwine to protect and preserve individual rights. The course covers critical analysis of criminal justice processes and the ethical, legal, and political factors affecting the exercise of discretion by criminal justice professionals.
View Course Outcomes

CJUS 1120 Criminal Law 3 Credits (3)
This course covers basic principles of substantive criminal law including elements of crimes against persons, property, public order, public morality, defenses to crimes, and parties to crime.
Learning Outcomes
1. Explain the concepts of substantive criminal liability in the United States, including actus reas, mens rea, causation, concurrence, and parties to crime.
2. Define the differences between criminal law and civil law in the United States.
3. Demonstrate basic knowledge of legal terminology as it relates to criminal law.
4. Identify the elements of crimes against persons, property, public order and the administration of justice, public morality, and the inchoate crimes.
5. Describe the various defenses to crimes.

View Course Outcomes

CJUS 1996 Topics in Criminal Justice 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
Repeatable: under different topics for a maximum of 6 credits.
View Course Outcomes

CJUS 2120 Criminal Courts and Procedure 3 Credits (3)
This course covers the structures and functions of American trial and appellate courts, including the roles of attorneys, judges, and other court personnel, the formal and informal process of applying constitutional law, rules of evidence, case law and an understanding of the logic used by the courts.
Learning Outcomes
1. Explain the application of the Constitutional Amendments that apply to criminal justice.
2. Explain and describe the dual court system in the U.S. and how courts enforce the rule of law.
3. Identify and list the duties and requirements of the courtroom workgroup.
4. Describe courtroom procedures, rules of the court, and due process of law.
5. Articulate basic knowledge of the U.S. criminal court system.
6. Define legal terms.
7. Explain the use of discretion in criminal procedure.
8. Differentiate the role of courts of limited jurisdiction, courts of general jurisdiction, and the appellate courts in the processing of criminal cases.

View Course Outcomes

CJUS 2140 Criminal Investigations 3 Credits (3)
This course introduces criminal investigations within the various local, state, and federal law enforcement agencies. Emphasis is given to the theory, techniques, aids, technology, collection, and preservation procedures, which ensure the evidentiary integrity. Courtroom evidentiary procedures and techniques will be introduced.

Learning Outcomes

1. Identify developments in investigation technology.
2. Identify common types of criminal investigations and their key components.
3. Apply proper crime scene investigative protocols.
4. Explain proper evidentiary gathering and handing procedures, and utilize various interviewing techniques.
5. Identify and compare different law enforcement agencies and the role they play in criminal investigations.
6. Describe proper collection, evidence preservation, documentation, and court presentation.
7. Develop effective search authorization.

View Course Outcomes

CJUS 2150 Corrections System 3 Credits (3)
This course introduces the corrections system in the United States, including the processing of an offender in the system and the responsibilities and duties of correctional professionals. The course covers the historical development, theory, and practice, as well as the institutional and community-based alternatives available in the corrections process.

Learning Outcomes

1. Describe the purposes of the corrections system and the issues facing the corrections system.
2. Explain the components of the corrections system and describe their functions.
3. Compare and contrast the different forms of correction practices.
4. Explain the goals of corrections, the different factors affecting the sentencing process, the legal rights of prisoners, and the issues concerning prison violence.
5. Explain the impact of reentry into society.
6. Identify the issues concerning capital punishment.
7. Describe the effectiveness of various correction programs on offenders.

View Course Outcomes

CJUS 2160 Field Experience in Criminal Justice 6 Credits (6)
This course is designed to provide actual experience working for a criminal justice agency and the opportunity to apply criminal justice concepts and theory to a field situation. Students already working in an agency will complete an approved learning project while on the job. Prerequisites: CJUS 1110G, prior arrangement and a GPA of 2.0 or better in major.

Learning Outcomes

1. Obtain practical experience by observing, researching, and working in a criminal justice agency.
2. Apply the knowledge of principles, theories, and methods that were learned in the classroom to situation in which field experience will be devoted.
3. Instill an understanding for general and specific problems that criminal justice agencies encounter on a daily basis.
4. Develop a professional work ethic and attitudes, including reliability, professional responsibility, and the ability to work cooperatively with others.

View Course Outcomes

CJUS 2220 The American Law Enforcement System 3 Credits (3)
This course covers the historical and philosophical foundations of law and order, with an in-depth examination of the various local, state, ad federal law enforcement agencies and how they interact within the criminal justice system.

Learning Outcomes

1. Discuss, evaluate, and analyze the role of police in the democratic society today, and the historical development of modern day law enforcement
2. Define and explain the different types of community policing and the valid reasons behind their application within a community
3. List and discuss the ways to overcome the barriers to change within a police organization, good recruitment, screening, and retention of employees
4. Analyze and discuss the history of and the different types of police patrol, as well as the use of force and deadly force, and methods used for controlling police behavior
5. Describe and discuss the different types of police behavior, potential oversight, and remedy and their limitations
6. List and discuss the benefits of higher and continued education, along with the minimum educational requirements for police officers
7. Evaluate and discuss the reasons for police stress and the methods of dealing with stressors
8. Interpret current court cases, both state and federal, that affect police procedures

View Course Outcomes

Criminal Justice - Associate in Criminal Justice

A grade of C- or better is required in all Criminal Justice courses, Second Language courses, and any courses filling the Core Requirements.

A maximum of 3-5 credit hours of applied coursework may be counted towards a C J degree. PL S (Paralegal Studies) courses can never replace or substitute for a Criminal Justice (CJUS) course but may be used as

electives within the 3-5 credits applied course limit. Please contact an advisor.

Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	
English Composition - Level 2		3
Choose one from the following:		
ENGL 2210G	Professional & Technical Communication	
ENGL 2221G	Writing in the Humanities and Social Science	
Oral Communication		3
COMM 1130G	Public Speaking	
or COMM 11	Introduction to Communication	
Area II: Mathematics		3
MATH 1220G	College Algebra (Core Curriculum Requirement) [2]	
or MATH 135	Introduction to Statistics	
Area III: Laboratory Science [1]		4
Area IV: Social/Behavioral Sciences		6
CJUS 1110G	Introduction to Criminal Justice (Core Curriculum Requirement) [2]	
SOCI 2310G	Contemporary Social Problems (Core Curriculum Requirement) [2]	
Area V: Humanities [2]		3
Complete any PHIL "G" course - Core Requirement [1, 2]		
Area VI: Creative and Fine Arts [1]		3
Area VII: Flexible 3 (General Education Elective)		1
POLS 1120G	American National Government (Core Curriculum Requirement) [2]	
Core Curriculum Requirements [2]		**12-27**
CJUS 1120	Criminal Law	
CJUS 2120	Criminal Courts and Procedure	
CJUS 2150	Corrections System	
CJUS 2220	The American Law Enforcement System	
Second Language Requirement		**8-3**
Completion of a second language through 1120 or 1220 level based on proficiency. [3]		
Electives, to bring total credits to 60		**10-16**
Recommended Electives		
CJUS 2140	Criminal Investigations	
CJUS 2160	Field Experience in Criminal Justice	
PSYC 2221	Applied Psychology	
Total Hours		**60-75**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Core Curriculum Requirement and must be completed regardless of transfer credit awarded.

[3]

To be determined by departmental assessment.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
CJUS 1110G	Introduction to Criminal Justice	3
ENGL 1110G	Composition I	4
POLS 1120G	American National Government	3
Area VI: Creative and Fine Arts Course [2]		3
	Hours	**13**
Spring		
Choose one from the following:		3
ENGL 2210G or ENGL 2221G	Professional & Technical Communication or Writing in the Humanities and Social Science	
CJUS 2220	The American Law Enforcement System	3
CJUS 2150	Corrections System	3
Area III: Laboratory Science Course [2]		4
Elective [3]		3
	Hours	**16**
Second Year		
Fall		
SPAN 1110	Spanish I [4]	4
MATH 1220G or MATH 1350G	College Algebra [1] or Introduction to Statistics	3
PHIL 1115G or PHIL 2230G or PHIL 1120G	Introduction to Philosophy or Philosophical Thought or Logic, Reasoning, and Critical Thinking	3
CJUS 1120	Criminal Law	3
Elective Course [3, 5]		3
	Hours	**16**
Spring		
SPAN 1120	Spanish II [4]	4
CJUS 2120	Criminal Courts and Procedure	3
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
SOCI 2310G	Contemporary Social Problems	3
Elective Course [3]		2
	Hours	**15**
	Total Hours	**60**

[1]

A Mathematics course is required for the degree but students may need to take any prerequisites needed to enter the course first.

[2]

See the General Education section of the catalog for a full list of courses.

3

Elective credit may vary based on prerequisites, dual credit, AP credit, and/or certificate coursework. The amount indicated in the requirements list is the amount needed to bring the total to 60 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

4

Students can follow one of the options below to complete the Second Language Requirement (the one displayed in this roadmap is option 1 with SPAN courses)

1. Completion of a second language through the 1120 level
2. Completion of a second language through the 1130 or 1140 level for Heritage speakers
3. Fulfilling one of the alternatives (see an advisor for specifics)

5

Or any additional English Composition - Level 2 course

Digital Media Technology

The **Digital Media Technology** program offers instruction and hands-on learning in in graphic design, digital video production, gaming, animation, simulation, and web design. Students may choose from several certificates which also apply towards the Associate of Applied Science degree in Digital Media Technology. Those include:

- **Digital Animation:** three-dimensional computer graphic animation
- **Digital Graphics:** the creation, publication and management of digital graphics for online distribution
- **Digital Video:** video production techniques for digital media
- **Digital Video Game Animation:** video game design and development for entertainment

Graduation Requirements

Digital Media Certificates (all): A cumulative GPA of 2.0 or higher. A minimum of 6 credits earned toward the certificate must be completed at SENMC. If the certificate requires fewer than 6 credits, all credits must be completed at SENMC.

AAS in Digital Media Technology: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Total credits required for degree: 60 credit hours

- Digital Graphics - Certificate (p. 93)
- Digital Media Technology Digital Animation - Associate of Applied Science (p. 93)
- Digital Media Technology Digital Graphics - Associate of Applied Science (p. 94)
- Digital Media Technology Digital Video - Associate of Applied Science (p. 95)
- Digital Video - Certificate (p. 96)
- Digital Video Game Animation - Certificate (p. 92)
- Digital Video Game Animation - Certificate (p. 97)

FDMA 1110 Film History 3 Credits (3)
This course surveys the history of cinema - investigating the process by which the original "cinema of attractions" evolved into a globally dominant form of visual storytelling. We will explore the development of cinema both as an art form and as an industry, and consider the technological, economic, cultural factors, and key international movements that shape it.
Learning Outcomes
1. Develop appreciation for the history of cinema.
2. Develop knowledge of the key eras in the history of US cinema.
3. Learn the characteristics of major movements in international cinema.
4. Explain technological innovations that were necessary for, and integral to, the advancement of cinema.
5. Recognize the various elements that go into telling a story in cinema.

View Course Outcomes

FDMA 1120 Desktop Publishing I 3 Credits (3)
This course is designed to teach introductory skills for designing and creating publications and presentations with layout software. The course will focus on graphics and typographic design, fonts, and other skills for print and web publishing. (2+2P)
Learning Outcomes
1. Demonstrate knowledge of fundamental features and navigation of desktop publishing software.
2. Combine text and images for effective communication.
3. Develop a balanced composition through use of color, contrast, and alignment.
4. Place images within a composition and wrap around text.
5. Produce documents with professional layout and typography skills.
6. Create attractive and effective designs.
7. Combine knowledge of typography, images, and design principles to produce professional print and web media.
8. Create or add to a professional design portfolio for future use.

View Course Outcomes

FDMA 1210 Digital Video Production I 3 Credits (3)
An introduction to digital video production. Students learn camera operation, lights and audio equipment. Hands-on production is completed in the studio and on location. (2+4P).
Learning Outcomes
1. Plan and produce a digital video project
2. Apply post-production workflow
3. Work in team and as individual to complete digital video projects.

View Course Outcomes

FDMA 1220 Introduction to Digital Video Editing 3 Credits (3)
In this course, students learn the basics of the post-production process for non-linear video editing. Students work with multiple video formats and create short movies for multiple distribution platforms. Skills include media management and professional terminology.
Learning Outcomes
1. Define concepts related to digital video editing.
2. Use non-linear video editing software for editing a short film
3. Enhance storytelling through the use of continuity, timing, cutaways, intercutting, compositing, transitioning, jump cutting, montaging and animating.
4. Use text, titles, transitions, video effects, sound effects, dialogue, and visual assets for digital video editing.

View Course Outcomes

FDMA 1260 Introduction to Digital Media 1-3 Credits
Explores concepts of how text, graphics, sound, images and video come together in a digital media program and researching new trends and current issues related to media applications and design. Students will be involved in teamwork, communication and workplace interaction simulation. Repeatable: up to 12 credits.
Learning Outcomes
1. Describe and identify the principal components and terminology of digital media.
2. Analyze and examine the use of digital media as a communication tool
3. Plan and implement a digital media project
4. Critique professional digital media products.
5. Create projects using a variety of digital media tools
6. Demonstrate a working knowledge of copyright and usage rights
7. Present completed projects in a professional manner for critique.

View Course Outcomes

FDMA 1360 Web Design I 3 Credits (3)
This course provides an introduction to web development techniques, theory, and design. Students will learn HTML, CSS application, and strategies for effective site navigation and design, along with industry standard web editing software to develop various websites. (2+2P)Repeatable: up to 6 credits.
Prerequisite(s): ARTS 1520 OR FDMA 1515
Learning Outcomes
1. Acquire and utilize web design terminology.
2. Create basic web pages using HTML.
3. Demonstrate how to use industry-standard, web editing software.
4. Design professional pages that are easy to navigate and quick to load.
5. Develop a basic comprehension of CSS
6. Prepare and export a variety of graphics to be used online.
7. Compare and contrast designing for web media vs. print media.
8. Analyze the importance of web presence in today's business/social climate.

View Course Outcomes

FDMA 1410 Audio Production I 3 Credits (3)
Students will learn about and apply essential tools and techniques in analog and digital audio production. Topics include acoustic science, microphones, recording and mixing techniques, analog and digital audio hardware and software, including, multi-track, computer-based recording and editing systems. (2+2P)
Prerequisite(s): FDMA 1210 and FDMA 2410
Learning Outcomes
1. Apply tools and techniques in analog and digital audio production
2. Illustrate the fundamentals of acoustic science.
3. Model professional behavior used in audio recording.

View Course Outcomes

FDMA 1415 Principles of Sound 3 Credits (3)
The creation of a professional quality original media soundtrack is possible for relatively low production/post production cost. This class is designed to give the student an overview of creating sound for a variety of digital media. Topics include acoustic principles, sound design, audio hardware, recording techniques; and editing, processing, and multi-track mixing, using software applications. (2+2P)
Prerequisite(s)/Corequisite(s): FDMA 1220
Learning Outcomes
1. Record and edit wild sound effects and synced dialogue
2. Discover, upload, and edit on-line music, ambience and sound effect loops
3. Implement audio design theories
4. Create an aesthetic soundtrack which incorporates multiple elements and dimensions
5. Design, edit, process, mix and master a synced multi-track soundtrack
6. Demonstrate capable use of digital audio production and post-production workflow
7. Produce short audio projects which meet media industry technical standards.

View Course Outcomes

FDMA 1510 Introduction to 3D Animation 3 Credits (3)
This course provides an overview of 3D animation production processes. Students will be introduced to basic story development and the creation of computer-generated assets and cinematic sequences. The course will survey specialty areas of digital animation and various software and techniques applied in entertainment and information media. Students will review and critique others animation, as well as plan and produce original animation for review by classmates and as part of a CGI demo reel.
Prerequisite(s): FDMA 2382 or FDMA 2381
Learning Outcomes
1. Demonstrate a fundamental understanding of 3D animation history and principles.
2. Analyze animation work of other artists.
3. Appropriately utilize the various media technologies for digital 3D animation.
4. Demonstrate and apply basic techniques of digital 3D animation.
5. Demonstrate and apply basic processes of creating CGI for a narrative.
6. Apply some basic strategies for developing and creating a story visually, and create original animations.
7. Present original animations to instructor and classmates for critique.
8. Create a CGI demo reel of work completed during the course.

View Course Outcomes

FDMA 1515 Introduction to Digital Image Editing - Photoshop 3 Credits (3)
In this course, students will learn how to use the tools in Adobe Photoshop to create new images and edit existing images. Tools used will include selections, layers, and adjustments, among other pixel editing tools. Basic composition and output will be emphasized in all projects. (2+2P).Repeatable: for a maximum of 6 credits.
Learning Outcomes
1. Make and refine selections
2. Adjust color and tone in an image
3. Eliminate unwanted objects in an image
4. Apply layers to organize and create effects
5. Create brushes, styles and vector shapes
6. Prepare image for print and screen output
7. Apply masking and layers to non-destructively edit an image
8. Effectively utilize blending modes and layer styles 1
9. Apply adjustment layers 1
10. Apply design principles including typography.

View Course Outcomes

FDMA 1531 Evolution of Electronic Games 3 Credits (3)
Focus on the evolution of video games and how they have shaped mainstream entertainment. (2+2P)Repeatable: up to 6 credits.
View Course Outcomes

FDMA 1535 Introduction to Illustrator 3 Credits (3)
Students receive instruction on vector graphics creation using vector illustration software. The students will create professional-quality artwork for print publishing and multimedia graphics. Instruction includes creating and manipulating basic shapes, drawing with the pen tool, using various brushes, working with type and preparing graphics for web, print, and digital publication. (2+2P).Repeatable: for a maximum of 6 credits.
Learning Outcomes
1. Apply a variety of shape blending options
2. Create and apply new gradients
3. Apply Gradient Meshes and Envelopes
4. Create symbols, brushes and vector shapes
5. Apply Pathfinder® and other effects
6. Effectively utilize the pen tool to draw and edit shapes
7. Effectively utilize Vector tools
8. Prepare image for print and screen output 1
9. Apply clipping masks. 1
10. Prepare image for use in another program 1
11. Apply design principles including typography.

View Course Outcomes

FDMA 1536 Advanced Computer Illustration 3 Credits (3)
Advanced techniques in 2D vector drawing and fundamentals of 3D illustration for use in print, web, and multimedia applications. (2+2P)Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1535
Learning Outcomes
1. Demonstrate proficiency in using advanced features of Illustrator.
2. Identify and create different illustrator/art styles using advanced techniques for shading, perspective, light, reflection.
3. Produce high quality digital imagery incorporating basic principles of composition.
4. Create a series of illustrations demonstrating a design competency in layout foundation and illustrative moods or client/project based solutions.
5. Create high quality portfolio pieces that demonstrate an advanced knowledge of design, composition and Illustrator techniques.
6. The students will produce finished printed portfolio pieces demonstrating a comprehensive knowledge of typographical, design, illustrative and layout skills.

View Course Outcomes

FDMA 1545 Introduction to Photography & Digital Imaging 3 Credits (3)
This course is a study of the principles and techniques of photography using digital equipment, and discusses how digital cameras, imaging editing, and technology have changed the world of photography. Students will learn about studies in resolution, lighting, software, editing, printing, and web applications. They will gain fundamental knowledge in the rapidly expanding technology of photography and imaging, and be able to incorporate the knowledge into all areas of digital graphics. (2+2P)
Learning Outcomes
1. Exhibit proper usage of the principles and techniques of photography using digital equipment.
2. Utilize features and techniques of a digital camera with proper use of lenses, settings, and flashes.
3. Create photo collections that represent proper use of technical skills.
4. Demonstrate proficiency in planning, lighting, capturing, and distributing photographic projects which show ability to create photographs artistically and to tell a story or express an idea.
5. Utilize appropriate software to create original projects.
6. Demonstrate knowledge in post-production of photos as to sizing, sampling, resolution, and exporting.
7. Produce original projects which respect intellectual property of others.
8. Create a digital portfolio of work completed during the course.

View Course Outcomes

FDMA 1555 Introduction to the Creative Media Industry 3 Credits (3)
This class is an introductory course for students who are beginning their understanding of Media and how it affects them and our society. It offers a broad-stroked view of the entire industry including Marketing, Production, History, Jobs, Design, Architecture, New Media Literacy, and industry standards. Students will listen to experts in the field, get involved in open discussions about the industry and use new information to complete hands-on individual and group assignments.
Learning Outcomes
1. The basic philosophies and methods that guide people working in the Creative Media industry.
2. Knowledge of a wide variety of different jobs, qualifications and paradigms used in the industry.
3. Marketing, Production, Budgets, History, New Media, Inspiration and other aspects of the industry.
4. An accurate view of the Creative Media field.

View Course Outcomes

FDMA 1630 Principles of Design 3 Credits (3)
This course will explore how we see and use visuals to communicate information. Students will develop critical thinking skills in applying concepts of basic design principles. Students will apply the concepts with hands-on and analysis assignments. These concepts will then be applied to design for advertising, print, digital media, and web design. The business of design will also be covered with emphasis on client relations and networking. (2+2P).
Prerequisite(s): FDMA 1535
Learning Outcomes
1. Practice Creativity
2. Plan a Design project
3. Demonstrate the effective use of Emphasis Contrast
4. Demonstrate the effective use of Balance and Alignment
5. Demonstrate the effective use of Harmony and Repetition
6. Demonstrate the effective use of Flow, Movement, and Rhythm
7. Demonstrate the effective use of Simplicity and Economy
8. Effectively apply basic color theory
9. Demonstrate the effective use of Typography principles 1
10. Apply design principles to Screen Print Projects 1
11. Develop client relations

View Course Outcomes

FDMA 1710 2D Animation 3 Credits (3)
Students will learn the basics of digital 2D animation by working through a variety of exercises, creating an original storyboard, and animating five or more shots utilizing industry standard software. (2+2P).
Prerequisite(s): FDMA 1535
Learning Outcomes
1. Be able to correctly storyboard an animation scene
2. Define and demonstrate basic animation terminology and principles.
3. Produce a complete hand drawn animation using industry standard software and processes.

View Course Outcomes

FDMA 1715 2-D Compositing & FX 3 Credits (3)
This course will familiarize students with the process of compositing and creating special effects for animation using industry standard software. Students will learn how to assemble an animated scene and use advanced 3D lighting, spacing, and digital effects to achieve a dynamic, professionally rendered look..
Prerequisite(s): FDMA 2710
Learning Outcomes
1. The goal of this class is for students to learn how to use advanced compositing and effects tools in order to achieve a more dynamic and professional visual look for their animations or motion graphics.
2. By the end of the class, you should be proficient animation compositors that can assemble and synthesize a basic animation into a rendered, visually sophisticated piece.
3. Students who pass this class will have a basic to intermediate knowledge of Adobe After Effects.

View Course Outcomes

FDMA 1720 3D Character Design 3 Credits (3)
Focus on designing a character and then taking that design and building it in 3D using intermediate modeling techniques. (2+4P).Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1510 or FDMA 2530
Learning Outcomes
1. Translate concept art into a low and high resolution 3D model using proper modeling techniques
2. Use Polygon modeling techniques to create a 3D character
3. Layout UVs and utilize Adobe Photoshop to texture a model.

View Course Outcomes

FDMA 1725 3D Shading and Lighting Techniques 3 Credits (3)
Study of various global, scene and character lighting techniques, shading and shadowing, and creating atmospheres and reflections that bring computer generated 3D scenes to life. Examines environmental and studio lighting to bring real life experience into the digital production process.
Learning Outcomes
1. Students will demonstrate visual communication skills through critiques, written explanations, and storyboarding.
2. Students will be able to illustrate ideas.
3. Students will be able to storyboard animation and video projects.
4. Students will be able to create complex lighting situations in a 3d environment.
5. Students will be able to expand expertise in 3d studio as well as Maya.
6. Students will be able to produce original projects that respect intellectual property of others.

View Course Outcomes

FDMA 1996 Topics in Film and Digital Media Arts 1-4 Credits
Specific titles to be announced in the Schedule of Classes. Repeatable: for a maximum of 18 credits.
View Course Outcomes

FDMA 2111 Environmental Scene Design 3 Credits (3)
Modeling design techniques used to create environments and scenes for use in animated films and games. Investigation of both natural and architectural environments to be recreated in the virtual world.
View Course Outcomes

FDMA 2112 Environmental Modeling, Shading and Lighting 3 Credits (3)
Modeling design techniques to create natural and architectural environments to be used for animated films and gaming. Study of various lighting techniques, shading and shadowing.
Learning Outcomes
1. Understand how to model more efficiently.
2. Understand how UV texturing works.
3. Create seamless textures.
4. Model, texture, shade, and light their own object.

View Course Outcomes

FDMA 2120 Film Crew I/Introduction to Film and Media Workflow 9 Credits (9)
An introduction to the film industry. This class teaches film production processes, film crew hierarchy, film production set-safety and etiquette and provides hands-on training in industry standard film production equipment. Students complete the semester by participating as a below-the-line crew member on a short film.
Learning Outcomes
1. Explain film production processes; Interpret call sheets and deal memos, model basic on-set protocols and professional behavior
2. Assist producers and directors in completing a professional film project
3. Work effectively in production crew positions in a group environment.
4. Recognize and articulate specific film production structure, from original concept to final release.

View Course Outcomes

FDMA 2125 Film Crew II 9 Credits (9)
The second of three courses (FDMA 2120, 2125 and 2130) designed to train students to become working members of film crews. It will be taught by working film professionals. Content will be lecture and hands-on. Students complete the semester by working as part of an actual film crew as below-the-line and above-the-line crew members.
Prerequisite(s): FDMA 2120
Learning Outcomes
1. Understand film production processes used to produce a film
2. Manage craft area job functions
3. Model on-set protocols and professional behaviors
4. Assist producers and directors in completing a professional film projects

View Course Outcomes

FDMA 2144 Pre-production Management 3 Credits (3)
Pre-production planning paperwork breakdowns, budgeting, and scheduling; taking a project from start to finish from a producer's standpoint.
Learning Outcomes
1. Demonstrate proficiency in various areas of pre-production
2. Create a script breakdown, budget, production and post-production schedule, and management plan and timeline that are technically sound.
3. Use features of pre-production and project management software, to foresee and plan the pre- production, production, and post-production stages of a project
4. Demonstrate understanding of the processes of supporting and managing a project, through the pre- production, production, and post-production stages to completion
5. Work collaboratively and communicate effectively with the pre-production and management teams to produce the desired finished project.

View Course Outcomes

FDMA 2150 Desktop Publishing II 3 Credits (3)
This class will enhance and build upon student layout/design skills developed in the Introduction to Desktop Publishing course, incorporating intermediate to advanced concepts in typography and layout design. Upon completion of this course, students will be able to use page layout software to prepare a variety of documents for presentation and critique, including newsletters, instructional flyers, and other complex design/ typographic pieces. (2+2P).Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1120
Learning Outcomes
1. Build upon knowledge of design and design terminology.
2. Exhibit intermediate to advanced design principles using type, layout, and color.
3. Demonstrate skill in intermediate to advanced concepts and features of page layout software.
4. Exhibit knowledge of styles, tables, images and clipping paths and interactive documents as well as printing preparations and procedures.
5. Create layouts for print, web, and other media that demonstrate an intermediate to advanced knowledge in typography and layout design.
6. Format and produce newsletters and instructional flyers, as well as larger, complex projects such as packaging mechanicals, multiple master page documents, and books.
7. Assess works of graphic design for quality and effectiveness.
8. Utilize produced material to create or add to a design portfolio for future use.

View Course Outcomes

FDMA 2210 Digital Video Production II 3 Credits (3)
Advanced techniques of the tools and application of professional film making. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1210
Learning Outcomes
1. Demonstrate the ability to produce and manage a video project. a. Produce a script, storyboard, and production schedule for a video project designed for a specific audience.
2. Demonstrate proficiency in producing quality digital video footage and audio tracks. a. Shoot to the script and storyboard using a variety of camera and lighting techniques. b. Produce a finished complex sound track including narration, music, and sound effect.
3. Demonstrate ability to produce and edit a professional quality video project. a. Integrate all production aspects of the project including video, audio, graphics, titles, transitions, and effects. Guide the project through the final production stages.
4. Develop competency in digital video distribution using various formats and techniques. a. Distribute project in various formats which could include DVD and web posting.

View Course Outcomes

FDMA 2241 Advanced Camera Techniques 3 Credits (3)
Professional camera techniques and training for electronic news gathering and studio filmmaking. Utilizes high-end handheld shooting techniques, cranes, dollies, and Steadicam training. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1210
Learning Outcomes
1. Students knowledge of high-end video camera operation and features.
2. Students must know all the working features of the video production equipment being used during the course in order to achieve the desired footage as required by the instructor.
3. Demonstrate proficiency in producing quality digital video footage.
4. Individuals must acquire the knowledge of different shooting styles in different productions situations and use those acquired skills to produce the appropriate video footage.
5. Using the proper lighting in different on location shooting styles.
6. Skill of each individual utilizing the usage of high-end camera equipment such as dollies, cranes and Steadicam.
7. Each individual must work as a team player to create professional style video footage.

View Course Outcomes

FDMA 2285 Digital Video Production and Editing II 3 Credits (3)
Advanced features of digital video, audio/music, and titling production software. Included are color correction, vector scopes, motion effects, and advanced editing techniques used by filmmakers. (2+2P).Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1220
Learning Outcomes
1. Intermediate to advanced video editing
2. Create short films and training videos
3. Create TV quality commercials
4. Direct a news broadcast
5. Work as a mentor to students on digital media equipment.

View Course Outcomes

FDMA 2287 Digital Design Studio 1-3 Credits
A design studio environment in which students obtain real-world experience while providing service to college and non-profit associations with faculty supervision using a variety of media. Can be used with permission to fulfill cooperative requirement. Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1630 or ARTS 1712
Learning Outcomes
1. Demonstrate competency in the use of InDesign software.
2. Create appropriate visual solutions based on target marketing information.
3. Demonstrate competency in the design and production of advertising and promotional materials.
4. Present ideas and concepts effectively and competently.
5. Visually demonstrate design solutions to be used in a portfolio.

View Course Outcomes

FDMA 2310 History of Cinema I 3 Credits (3)
This course surveys the history of cinema - investigating the process by which the original cinema of attractions evolved into a globally dominant form of visual storytelling. We will explore the development of cinema both as an art form and as an industry, and consider the technological, economic, cultural factors, as well as many key international movements that helped shape it.
Learning Outcomes
1. Gain a greater appreciation for the history of cinema
2. Develop knowledge of the key eras in the history of U.S. cinema
3. Learn the characteristics of major movements in international cinema
4. Understand the various elements that go into telling a story in cinema: screenplay, narrative devices, director, producer, talent, production design, cinematography, editing, sound design
5. Learn how major genres in U.S. cinema have evolved in the past 100+ years
6. Gain a basic understanding of the operations and organization of the Hollywood film industry, from the studio system until today
7. Gain an awareness of the shifts in the film industry that present new opportunities for independent filmmakers
8. Understand the importance of learning about the history of cinema to the process of becoming a filmmaker
9. Strengthen public speaking skills.

View Course Outcomes

FDMA 2311 History of Animation 3 Credits (3)
Explores the history of Animation as an art form and industry through readings, screenings, lecture and periodic guest speakers.
Learning Outcomes
1. To expand your knowledge of the history of animation and its evolution to the modern day.
2. To expand your ability to view animation critically and to understand its early connections to cartooning as well as its ongoing cultural presence and relevance.
3. To expand your comfort with accessing information and completing assignments both online and independently. Canvas will be utilized for many of our readings and for some response assignments.

View Course Outcomes

FDMA 2312 History of Media Design 3 Credits (3)
An introduction to the principles of design history and theory within a chronological framework of historical and emerging media.
Learning Outcomes
1. Introduction to visual communication. a. Defines design media. b. Discuss universal design principles and strengthen student basic design skills.
2. Historical technological development and design. a. Prehistoric communication b. Beginnings of alphabet and written language c. Movable type and the printing press d. Industrial revolution e. Digital Age f. Designers and Trends
3. Personalities and their influence and contributions
4. Identify design styles and discuss the relevance of how design influences: a. Idea generation b. Trend sources c. Influences or appropriation d. Propaganda and advertising

View Course Outcomes

FDMA 2325 Advanced Photoshop 3 Credits (3)
This course expands on the Photoshop skill set to develop proficiency with selections, masking, channels, filters, color correction, painting tools, vector integration, video, special effects, and compositing techniques. The focus is 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 and students develop work suitable for portfolios. (2+2P) Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1515
Learning Outcomes
1. Create effects using advanced blending techniques
2. Effectively utilize advanced masking techniques
3. Refine Selections with advanced techniques
4. Assess Adjust color in an image
5. Utilize advanced photo enhancement techniques
6. Alter images using Photoshop painting techniques
7. Create brush presets
8. Create vector elements with paths
9. Add manipulate type on a path 1
10. Create advanced special effects 1
11. Apply vanishing point warping 1
12. Create a video clip 1
13. Apply color adjustments to video

View Course Outcomes

FDMA 2326 Digital Photography and Imaging II 3 Credits (3)
Provide understanding and skills needed for advanced digital capture, editing, optimizing and manipulating photographic images for print, web and multimedia applications. The course will prepare students to make more advanced technical and more refined aesthetic decisions relative to specific photographic applications. (2+2P)
Prerequisite(s): FDMA 1545
Learning Outcomes
1. Apply proper exposure techniques.
2. Practice effective composition techniques.
3. Demonstrate knowledge of working with Camera RAW files.
4. Demonstrate proper image adjustment and correction techniques.
5. Successfully apply the basics of HDR digital photography.
6. Apply techniques for modifying light.

View Course Outcomes

FDMA 2360 Web Design II 3 Credits (3)
In this course, students will refine their skills in coding and web graphic design as well as be introduced to methods in constructing sites that adhere to the standards of responsive web design. Students will expand their knowledge of HTML and CSS using a code editor, and they will both analyze existing websites and also construct an interactive website. (2+2P).Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1360
Learning Outcomes
  1. Plan and produce web design mockups.
  2. Demonstrate a proficiency in HTML/CSS coding.
  3. Utilize basic web scripts.
  4. Integrate animation into web design
  5. Create fully functional websites using one or more web editors.
  6. Make a website "live."
  7. Evaluate web designs for aesthetics and functionality.
  8. Demonstrate the utilization of responsive design.

View Course Outcomes

FDMA 2365 Web Design for Small Business 3 Credits (3)
Create and manage well designed online business, and organized web sites using a Content Management System. Repeatable: up to 6 credits. (2+2P)
Prerequisite(s): FDMA 1360
Learning Outcomes
  1. using CSS, PHP, HTML, Photoshop, and WordPress.
  2. design a complete and fully functional online web business.
  3. understand and develop a plan to better manage a web store/ business.
  4. review basic design guidelines in preparing a variety of web applications for business.
  5. develop technical skills in using various web-based solutions.
  6. reinforce your knowledge of web design software.
  7. introduce alternate sources of data, communication and financial solutions.

View Course Outcomes

FDMA 2370 Advanced Web Techniques 3 Credits (3)
Creating and managing complex web sites using advanced techniques and tools. Repeatable: up to 6 credits.
Learning Outcomes
  1. Create webpages using Hypertext Markup Language (HTML) elements and tags
  2. Format webpages using Cascading Style Sheets (CSS)
  3. Validate webpage code
  4. Apply industry-standard webpage design and organization principles
  5. Publish a website.

View Course Outcomes

FDMA 2375 Typography 3 Credits (3)
This course introduces students to the history of typography and its emotive, symbolic and communicative aspects. Students learn how to use type in a creative and aesthetic way and develop an understanding of page composition that incorporates concept and design.Repeatable: May be taken twice.
Learning Outcomes
  1. Understand the history of type
  2. Use type as a communication tool as well as a design element
  3. Understand the relationship between content and format
  4. Make informative decisions in typeface selection.

View Course Outcomes

FDMA 2381 Storyboarding 3 Credits (3)
Examines effective writing principles to create storyboards that communicate the overall picture of a project, timing, scene complexity, emotion and resource requirements. Further, the purpose of this course is to introduce students to the principles of visual storytelling in film through the use of the storyboard. In other words, to show how storyboards are critical architectural component of the filmmaking process used as a blueprint (or guide) to communicate the complex elements of a film story. Restricted to: DFM,ANVE, G-CMI majors. Crosslist: ENGL 2381.
Learning Outcomes
  1. Learn to conceive and draw original images.
  2. Learn to use images to tell a story.
  3. Design, develop, and order images (shots) into storyboarded scenes.
  4. Understand how storyboarded sequences are a tool in the process of filmmaking.
  5. Understand how the storyboard image is translated from the written page.
  6. Build scenes from the scripted sequences into a storyboard.

View Course Outcomes

FDMA 2382 Principles of Story Across the Media 3 Credits (3)
The purpose of this course is to help students understand the basic elements of narrative structure (e.g. character, dramatic conflict, theme, etc.) and how these elements may be used effectively in media expression. Crosslist: ENGL 2382.
Learning Outcomes
  1. Identify the elements of storytelling in scripted text or improvised performance
  2. Understand how these elements work together across different media
  3. Apply these elements of storytelling in original work
  4. Appreciate and master these elements for independent or collaborative work.

View Course Outcomes

FDMA 2383 Writing and Storyboarding 3 Credits (3)
Learning good writing principles to create storyboards and scripts that communicate the overall picture of the project, timing, scene complexity, emotion, and resource requirements.
Learning Outcomes
1. How to create a concept for a CG project.
2. How to visualize a project, including scripting, storyboards and concept drawings.
3. How to manage a project, including scheduling and budgeting.

View Course Outcomes

FDMA 2410 Audio Production II 3 Credits (3)
Students will use skills developed in the Audio Production I course to produce audio projects utilizing a variety of analog and digital audio hardware and software, including continued use of multi-track, computer-based recording and editing systems, as well as exploring more advanced audio techniques and concepts. (2+2P)
Learning Outcomes
1. Apply analog and digital audio hardware and software in audio recording.
2. Apply common professional set-up practices of audio production facilities.
3. Produce audio projects, sync sound recordings, and audio dialogue replacement (ADR) demonstrating technical expertise.
4. Perform an audio mix and master for a final professional product.
5. Analyze and compare existing audio productions for quality.

View Course Outcomes

FDMA 2510 Introduction to Sound Design for Film 3 Credits (3)
This course is an introduction to the principles, techniques and applications of sound design and film scoring. Students learn how sound affects storytelling in a film, examine the role of sound from the script to screen, and the professional process of creating a soundtrack. Students learn how to use sound equipment in a production environment and execute basic techniques used to develop a soundtrack. Crosslist: FDMA 1415.
Prerequisite(s)/Corequisite(s): FDMA 2382
Learning Outcomes
1. Compare the properties and propagation of sound and importance of sound to the storytelling aspect of filmmaking
2. Learn the process of designing a soundtrack for film and recording live audio dialogue for use in post- production editing.
3. Learn methods of capturing sound including live audio recording, dialogue recording, Foley, orchestration and audio dialogue replacement
4. Design a soundtrack for motion media project.

View Course Outcomes

FDMA 2520 Introduction to Cinematography 3 Credits (3)
The Director of Photography (or Cinematographer), in close collaboration with the Director and Production Designer, helps determine the look of a film. This course is designed to introduce students to the technical and aesthetic fundamentals of creating, developing, and collaborating on the visual elements of storytelling, using camera framing, lensing, and lighting fundamentals such as shadows, light and color. Repeatable: up to 6 credits. only.
Prerequisite(s)/Corequisite(s): FDMA 1210 or FDMA 2382
Learning Outcomes
1. Define and explain the fundamental concepts of cinematography, such as exposure, lighting solutions, and color temperature.
2. Understand how cinematography brings the Director's vision to reality.
3. Demonstrate proficiency in plotting and executing interior and exterior lighting solutions.

View Course Outcomes

FDMA 2530 Introduction to 3D Modeling 3 Credits (3)
This course will introduce 3D modeling methods and current practices. Students will learn preliminary and detailed modeling techniques using industry standard software. Methods will emphasize formal and functional aspects of modeling as they apply to mechanical, organic, and sculpted topology for application in animation, games, and information media. Repeatable: for a maximum of 6 credits.
Learning Outcomes
1. Identify the role of a 3D modeler in a production pipeline within various fields of digital animation.
2. Apply techniques in modeling mechanical and organic objects.
3. Utilize tools available in professional 3D modeling software.
4. Create simple animations and renders.
5. Present original animations to instructor and classmates for critique.
6. Create a demo reel of work completed during the course.

View Course Outcomes

FDMA 2535 Digital Illustration Techniques 3 Credits (3)
Introductory course examining traditional artistic expressions and translating visual art experiences into a digital art medium to enhance visual storytelling. Students acquire basic principles of drawing and painting through hands-on experience manipulating tonal value, composition, form development, light and shadow, color theory, rendering realism, and graphic design.
Learning Outcomes
1. Be familiar with the CMI computer system, facilities, equipment and policies.
2. Appropriately utilize the various media technologies available at CMI for digital illustration.
3. Understand the different roles and areas of digital illustration.
4. Understand and apply some basic techniques of digital illustration.
5. Understand and apply some basic processes of creating pleasing images based on knowledge of traditional art principles.
6. Begin to apply some basic strategies for developing and creating aesthetically pleasing images.

View Course Outcomes

FDMA 2550 Print Media III (Desktop Publishing III) 3 Credits (3)
Refinement of skills needed to prepare a variety of documents for print and the service bureau.
Learning Outcomes
1. To become more proficient with InDesign in preparing a variety of documents including CD covers, flyer and long documents.
2. To refine design process in laying out various documents.
3. To increase knowledge of paper creation and relevant paper choices for specific projects.
4. To increase knowledge of color and file formats.
5. To prepare files for service bureaus, presentation and critique.
6. To create portfolio-ready pieces.

View Course Outcomes

FDMA 2570 Creative Media Studio 3 Credits (3)
A studio environment where students specialize in creating film-festival quality and portfolio-ready projects under the supervision of faculty. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1210 and FDMA 1220 or FDMA 2530
Learning Outcomes
1. Students will work together to create portfolio-quality work in a studio environment. Through classroom discussion and reporting the students will collaborate to produce a professional quality "vertical slice" game concept within a defined timeline and financial budget.

View Course Outcomes

FDMA 2710 Beginning 2-D Animation 3 Credits (3)
Students will learn the basics of digital 2D animation by working through a variety of exercises, creating an original storyboard, and animating five or more shots utilizing industry standard software.
Learning Outcomes
1. Use major software tools with ease
2. Manage timelines through key frames
3. Build storyboards
4. Demonstrate knowledge of 2-D and animation terminology
5. Produce actions, set environments and constraints for 2-D animation
6. Render full animation

View Course Outcomes

FDMA 2715 Special Effects 3 Credits (3)
Creating advanced virtual special effects for both rigid and soft bodies. Using MEL, dynamic principles, mixing nodes, and advanced particle systems. How to drive particles over surfaces, add texture to flow, create surface tensions, and use collision events to drive texture. Study of integrating computer-generated images with real-life video and audio. (2+4P)
Prerequisite(s): FDMA 2530
View Course Outcomes

FDMA 2720 3D Animation 3 Credits (3)
Overview of the essentials and principles of 3D animation; creative methods for using industry standard tools to produce the illusion of movement for storytelling and creating 3D effects. Topics include, keyframe and curve animation, kinematics, cycle animation, camera animation, deformers, dynamics and constraints.
Prerequisite(s): FDMA 1510, FDMA 2710
Learning Outcomes
1. Clearly describe the role of an animator in cinema, gaming and related fields.
2. Recognize leading animators and their methods.
3. Demonstrate knowledge of advances in contemporary animation.
4. Utilize current industry standard animation tools.
5. Apply fundamental animation processes and techniques.

View Course Outcomes

FDMA 2725 Rigging for 3D Animation 3 Credits (3)
This course will introduce principles and practices of current 3D animation rigging. Students will develop fundamental methods necessary to create character rigs. Students will learn aesthetic, technical, and optimization concepts as they apply to organic and mechanical designs. Topics will include: hierarchies, constraints, deformation rigging, skeleton creation, skinning, forward and inverse kinematics, controls, body and facial rigging.
Prerequisite(s): FDMA 1510
Learning Outcomes
1. Understand what Rigging is and the role it plays in the world of cinema and video games.
2. Be familiar with industry professionals and their techniques and approaches to rigging.
3. Understand and be able to apply the fundamentals of rigging to industry standard applications.
4. Demonstrate ability to rig basic to intermediate machines, bipeds and quadrupeds.

View Course Outcomes

FDMA 2730 Advanced Character Animation 3 Credits (3)
Focus on complex rigging techniques as well as utilizing advanced animation functions to blend multiple animations into complex animations. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 2530
Learning Outcomes
1. Create skeletal riggings for use with a 3D model
2. Attach riggings to a 3D model using Smooth and rigid binding and refine the bindings so that they are properly weighted
3. Animate a 3D model using skeletal and vertex animation techniques

View Course Outcomes

FDMA 2735 Advanced 3D Animation Workshop A 3 Credits (3)
Program capstone. Students will utilize the skills learned in the program to produce their final animation. Group integrated projects are strongly recommended to emulate a real-work animation studio environment. (2+4P)Repeatable: for a maximum of 9 credits.
Corequisite(s): FDMA 2740
Learning Outcomes
1. Define the duties and skills sets required for a career in 3D Modeling.
2. Understand the Maya interface, the uses for all of the major modes and menus of the interface and be able to describe how to access the tools, actions and the options of those tools and actions.
3. Complete and compile a multi shot animated short.

View Course Outcomes

FDMA 2740 Advanced 3D Animation Workshop B 3 Credits (3)
Program capstone. Students will utilize the skills learned in the program to produce their final animation. Group integrated projects are strongly recommended to emulate a real-work animation studio environment. (2+4P)Repeatable: for a maximum of 9 credits.
Corequisite(s): FDMA 2735
Learning Outcomes
1. Define the duties and skills sets required for a career in 3D Modeling.
2. Understand the Maya interface, the uses for all of the major modes and menus of the interface and be able to describe how to access the tools, actions and the options of those tools and actions.
3. Complete and compile a multi shot animated short.

View Course Outcomes

FDMA 2745 Light, Shade, Render 3 Credits (3)
This course will explore the theory and practice of 3D lighting and rendering methodologies. Techniques covered will implement cameras, lighting sources, textures, surface-mapping and algorithmic rendering to produce stylized and photo realistic images. Topics covered will include direct and indirect lighting, shaders that simulate physical substances and effects, rendering multiple passes and simulating physical lens effects.
Prerequisite(s): FDMA 1510 or FDMA 2530
Learning Outcomes
1. Understand the role of lighting and surfacing to tell a story.
2. Be familiar with leading lighting artist and their approaches.
3. Utilize the software implemented in the entertainment industry.
4. Understand and apply fundamental lighting and rendering techniques.
5. Demonstrate ability to create successfully rendered scenes from concept through production.

View Course Outcomes

FDMA 2750 Digital Sculpting 3 Credits (3)
Introduce students to the 3D Sculpting programs which are the industry standard sculpting programs. Students will learn how to create complex high polygon sculpts and normal maps and transfer the models into 3D studio Max and Autodesk Maya. Repeatable: up to 6 credits.
Prerequisite(s): FDMA 2530
Learning Outcomes
1. Demonstrate communication skills through written critiques and explanations
2. Students will demonstrate visual communication skills through critiques, written explanations, and storyboarding
3. Demonstrate a working knowledge of Brush's interface
4. Demonstrate a working knowledge of Zpheres and how they are best used to create sculpts
5. Demonstrate a working knowledge of painting a mesh using Spotlight
6. Demonstrate a working knowledge of retopologizing and exporting the mesh
7. Demonstrate a working knowledge of integrating the full Zbrush pipeline into Unity and Unreal

View Course Outcomes

FDMA 2755 Drawing for Animation 3 Credits (3)
Introductory study of the human and animal form in relation to animation. Students learn fundamentals and exaggeration of the figure, as related to proportion, rhythm, mechanics, and motion. Areas of focus are: basic form, proportion, shape, contour, gesture, anatomy, portraiture, perspective, clothing effects and drawing from observation. FDMA majors.
Learning Outcomes
1. Understand what the basics of drawing the human form.
2. Have a general understanding of human anatomy as needed for the artist.
3. Be able to design the human form from imagination.

View Course Outcomes

FDMA 2760 Personal Character Development 3 Credits (3)
Focus on the development of personal character(s), from sketch to render. Develop complete biographies of character, then build, skin and animate with as many personal attributes as possible.
View Course Outcomes

FDMA 2765 Anatomical Character Design 3 Credits (3)
Focus on building anatomy-based 3D characters. Advanced study in NURBS, subdivisions, and polygon modeling techniques used to create fully functional and realist models. Repeatable: for a maximum of 6 credits.
Learning Outcomes
1. Understand the flow of character anatomy.
2. Model polygon, NURBs, and subdivision objects.
3. Gain a better understanding for geometry flow on characters.
4. Gain general knowledge of anatomical character techniques.
5. UV texture an anatomical character correctly.
6. Create anatomical characters more efficiently.
7. Sculpt detail into a character to add to its' realism.

View Course Outcomes

FDMA 2770 Critical Game Studies 3 Credits (3)
Focus on creating a complete design document utilizing techniques and standards used in the industry today. (2+2P)Repeatable: for up to 6 credits.
View Course Outcomes

FDMA 2775 Game Tools and Techniques 3 Credits (3)
Focus on the different engines and gaming technologies that power the games of today. Repeatable: for a maximum of 6 credits. (2+2P)
Prerequisite(s): FDMA 2770
Learning Outcomes
1. Students will develop rapid prototyping techniques. Through classroom exercises the students will gain competency in industry-standard game creation engines and tools, and learn to work together in groups to create rapid prototypes. This includes creating art, sound and music, and creating basic scripts within an engine.

View Course Outcomes

FDMA 2780 Gaming Platform and Standards 3 Credits (3)
Focus on the different gaming platforms and their corresponding gaming demographics and standards.Repeatable: for up to 6 credits.Restricted to: CMT majors.
Learning Outcomes
1. Break down the different types of bugs found in alpha and beta versions of games
2. Learning how to write and submit bug reports using current industry requirements
3. Communicate clearly within a team environment
4. Learn how each of the major platforms receive game submissions as well as the requirements for each platform.

View Course Outcomes

FDMA 2785 Level Design Concepts 3 Credits (3)
Focus on the design and creation of video game levels. Dealing with the challenges and pitfalls of different video game genres. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 2770
Learning Outcomes
1. Students will develop level design skills. Through classroom exercises the students will gain a comfortable competency with designing levels both on paper and digitally. This includes creating first person shooter levels, third person levels, multiplayer level design, and more.

View Course Outcomes

FDMA 2993 Workshop in Film & Digital Media Arts 1 Credit (1)
This is a series of 1-credit workshops offering specialized and intense advanced skill training and upgrading applications of photography for commercial purposes and training in photographic skills and styles presented by a variety of professional lecturers. Repeatable: up to 7 credits.
Prerequisite(s): FDMA 1545
View Course Outcomes

FDMA 2994 Portfolio in Film & Digital Media Arts 1-3 Credits
VariesRepeatable: up to 6 credits.
View Course Outcomes

FDMA 2995 Cooperative Education in Film & Digital Media Arts 3-6 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. Repeatable: up to 9 credits. Grading: S/U Grading (S/U, Audit)
Prerequisite(s): FDMA 2125
View Course Outcomes

FDMA 2996 Topics in Film & Digital Media 1-4 Credits
Specific topics to be announced in the Schedule of Classes. Repeatable: for a maximum of 18 credits.
View Course Outcomes

FDMA 2997 Independent Study in Film & Digital Media Arts 1-3 Credits
Individual studies directed by consenting faculty with prior approval of department head. Repeatable: up to 6 credits.
Prerequisite(s): Minimum GPA of 3.0 and sophomore standing
View Course Outcomes

FDMA 2998 Field Experience in Film & Digital Media Arts 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. Graded: S/U Grading (S/U, Audit).
Repeatable: up to 9 credits
View Course Outcomes

Digital Video Game Animation - Certificate

Code	Title	Hours
Technical Requirements		
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 1535	Introduction to Illustrator	3
FDMA 1710	2D Animation	3
FDMA 1720	3D Character Design	3
FDMA 2530	Introduction to 3D Modeling	3
FDMA 2730	Advanced Character Animation	3
FDMA 2735	Advanced 3D Animation Workshop A	3
FDMA 2740	Advanced 3D Animation Workshop B	3
Total Hours		**24**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
FDMA 1535	Introduction to Illustrator	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
	Hours	**6**
Spring		
FDMA 1710	2D Animation	3

FDMA 2530	Introduction to 3D Modeling	3
	Hours	**6**
Second Year		
Fall		
FDMA 1720	3D Character Design	3
FDMA 2730	Advanced Character Animation	3
	Hours	**6**
Spring		
FDMA 2735	Advanced 3D Animation Workshop A	3
FDMA 2740	Advanced 3D Animation Workshop B	3
	Hours	**6**
	Total Hours	**24**

Digital Graphics - Certificate

Code	Title	Hours
Technical Requirements		
FDMA 1120	Desktop Publishing I	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 1535	Introduction to Illustrator	3
FDMA 1630	Principles of Design	3
FDMA 2150	Desktop Publishing II	3
FDMA 2360	Web Design II	3
Approved FDMA Electives		6
Total Hours		**24**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
FDMA 1120	Desktop Publishing I	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
	Hours	**6**
Spring		
FDMA 1535	Introduction to Illustrator	3
FDMA 2150	Desktop Publishing II	3
	Hours	**6**
Second Year		
Fall		
FDMA 1630	Principles of Design	3
FDMA 2360	Web Design II	3
	Hours	**6**
Spring		
Approved FDMA Elective		3
Approved FDMA Elective		3
	Hours	**6**
	Total Hours	**24**

Digital Media Technology Digital Animation - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60-62 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI. [1,2]		19-20
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [1]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
PSYC 1110G	Introduction to Psychology (Technical Requirement) [1]	
Area V: Humanities		
Area VI: Creative and Fine Arts		
ARTH 1115G	Orientation in Art (Technical Requirement) [1]	
Technical Requirements		
ARTS 1240	Design I	3
COMM 1115G	Introduction to Communication	3
or COMM 1130	Public Speaking	
ENGL 2382	Narrative: Principles of Story Across the Media	3
FDMA 1260	Introduction to Digital Media	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 1535	Introduction to Illustrator	3
FDMA 1710	2D Animation	3
FDMA 1720	3D Character Design	3
FDMA 2530	Introduction to 3D Modeling	3
FDMA 2730	Advanced Character Animation	3
FDMA 2735	Advanced 3D Animation Workshop A	3
FDMA 2740	Advanced 3D Animation Workshop B	3
OEGR 221	Cooperative Experience I	3
or FDMA 2287	Digital Design Studio	
ARTH, ARTS, FDMA, or OEGR Elective [3]		2-3
Total Hours		**60-62**

[1]

Course is a Technical Requirement and must be completed regardless of transfer credits awarded.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

Choose from ARTH, ARTS, FDMA or OEGR courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
FDMA 1260	Introduction to Digital Media	3
ENGL 1110G	Composition I (Area I: Communications)	4
MATH 1220G or MATH 1130G	College Algebra (Area II: Mathematics) [1] or Survey of Mathematics	3
Area V: Humanities - Choose one from the following:		3
ENGL 2520G	Film as Literature	
HIST 1150G	Western Civilization I	
HIST 1130G	World History I	
Program Concentration Course [2]		3
	Hours	**16**
Spring		
ARTS 1240	Design I	3
Area III: Laboratory Science - Choose one from the following:		4
ASTR 1115G	Introduction to Astronomy (Lec+Laboratory)	
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-based Physics I Laboratory	
PSYC 1110G	Introduction to Psychology (Area IV: Social/Behavioral Sciences)	3
ARTH 1115G	Orientation in Art (Area VI: Creative and Fine Arts)	3
Program Concentration Course [2]		3
	Hours	**16**
Second Year		
Fall		
COMM 1115G or COMM 1130G	Introduction to Communication (Area VII: Flexible 3 (General Education Elective)) or Public Speaking	3
Program Concentration Courses [2]		9
Elective Course [3]		3
	Hours	**15**
Spring		
ENGL 2382	Narrative: Principles of Story Across the Media	3
OEGR 221 or FDMA 2287	Cooperative Experience I or Digital Design Studio	1-3
Program Concentration Course [2]		9
	Hours	**13-15**
	Total Hours	**60-62**

[1]

MATH 1220G College Algebra or MATH 1130G Survey of Mathematicsis required for the degree but students may need to take any prerequisites needed to enter MATH 1220G College Algebra or MATH 1130G Survey of Mathematics first.

[2]

Program Concentration Coursework:
- FDMA 1535 Introduction to Illustrator
- FDMA 1515 Introduction to Digital Image Editing - Photoshop
- FDMA 1710 2D Animation
- FDMA 2530 Introduction to 3D Modeling
- FDMA 1720 3D Character Design
- FDMA 2730 Advanced Character Animation
- FDMA 2735 Advanced 3D Animation Workshop A
- FDMA 2740 Advanced 3D Animation Workshop B

[3]

For electives, select from ARTS, FDMA, or OEGR courses. Elective credit may vary based on prerequisites, dual credit, AP credit, and/or certificate coursework. The amount indicated in the requirements list is the amount needed to bring the total to 60 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

Digital Media Technology Digital Graphics - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60-62 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI. [1,2]		19-20
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [1]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
PSYC 1110G	Introduction to Psychology (Technical Requirement) [1]	
Area V: Humanities		
Area VI: Creative and Fine Arts		
ARTH 1115G	Orientation in Art (Technical Requirement)	
Technical Requirements		
ARTS 1240	Design I	3
COMM 1115G or COMM 1130	Introduction to Communication Public Speaking	3
ENGL 2382	Narrative: Principles of Story Across the Media	3
FDMA 1120	Desktop Publishing I	3
FDMA 1260	Introduction to Digital Media	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 1535	Introduction to Illustrator	3
FDMA 1630	Principles of Design	3
FDMA 2150	Desktop Publishing II	3
FDMA 2360	Web Design II	3

OEGR 221	Cooperative Experience I	3
or FDMA 2287	Digital Design Studio	
FMDA Electives		6
ARTH, ARTS, FDMA, or OEGR Elective [4]		2-3
Total Hours		**60-62**

1

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

2

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I (Area I: Communications)	4
FDMA 1260	Introduction to Digital Media	3
MATH 1220G	College Algebra (Area II: Mathematics)	3
or MATH 1130G	or Survey of Mathematics	
Choose one from the following: Area V: Humanities		3
ENGL 2520G	Film as Literature	
HIST 1150G	Western Civilization I	
HIST 1130G	World History I	
Program Concentration Course [2]		3
	Hours	**16**
Spring		
ARTS 1240	Design I	3
Choose one from the following: Area III: Laboratory Science		4
ASTR 1115G	Introduction to Astronomy (Lec+Laboratory)	
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-based Physics I Laboratory	
ARTH 1115G	Orientation in Art (Area VI: Creative and Fine Arts)	3
PSYC 1110G	Introduction to Psychology (Area IV: Social/Behavioral Sciences)	3
Program Concentration Course [2]		3
	Hours	**16**
Second Year		
Fall		
COMM 1115G	Introduction to Communication (Area VII: Flexible 3 (General Education Elective))	3
or COMM 1130G	or Public Speaking	
Program Concentration Courses [2]		9
Elective Course [3]		3
	Hours	**15**
Spring		
ENGL 2382	Narrative: Principles of Story Across the Media	3
OEGR 221	Cooperative Experience I	1-3
or FDMA 2287	or Digital Design Studio	

Program Concentration Course [2]		9
Hours		**13-15**
Total Hours		**60-62**

1

MATH 121G College Algebra or MATH 210G Mathematics Appreciation is required for the degree but students may need to take any prerequisites needed to enter MATH 121G or MATH 210G first.

2

Program Concentration Coursework:
- FDMA 1120 Desktop Publishing I
- FDMA 1535 Introduction to Illustrator
- FDMA 1515 Introduction to Digital Image Editing - Photoshop
- FDMA 1630 Principles of Design
- FDMA 2360 Web Design II
- FDMA 2150 Desktop Publishing II
- Approved FDMA Electives (6 credits)

3

For electives, select from ART, CMT, CMI or OEGR courses.
Elective credit may vary based on prerequisites, dual credit, AP credit, and/or certificate coursework. The amount indicated in the requirements list is the amount needed to bring the total to 60 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

Digital Media Technology Digital Video - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60-62 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI. [1,2]		19-20
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [1]	
Area II: Mathematics		
Area III: Laboratory Science		
Area V: Humanities		
Area IV: Social/Behavioral Sciences		
PSYC 1110G	Introduction to Psychology (Technical Requirement) [1]	
Area V: Humanities		
Area VI: Creative and Fine Arts		
ARTH 1115G	Orientation in Art (Technical Requirement)	
Technical Requirements		
ARTS 1240	Design I	3
COMM 1115G	Introduction to Communication	3
or COMM 1130G	Public Speaking	
ENGL 2382	Narrative: Principles of Story Across the Media	3
FDMA 1110	Film History	3

FDMA 1210	Digital Video Production I	3
FDMA 1220	Introduction to Digital Video Editing	3
FDMA 1260	Introduction to Digital Media	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 2210	Digital Video Production II	3
FDMA 2285	Digital Video Production and Editing II	3
FDMA 2520	Introduction to Cinematography	3
FDMA 2994	Portfolio in Film & Digital Media Arts	3
OEGR 221 or FDMA 2287	Cooperative Experience I Digital Design Studio	3
ARTH, ARTS, FDMA, or OEGR Elective		2-3
Total Hours		**60-62**

1

Course is a Technical Requirement and must be completed regardless of transfer credits awarded.

2

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
FDMA 1260	Introduction to Digital Media	3
ENGL 1110G	Composition I (Area I: Communications)	4
MATH 1220G or MATH 1130G	College Algebra (Area II: Mathematics) or Survey of Mathematics	3
Area V: Humanities - Choose one from the following:		3
ENGL 2520G	Film as Literature	
HIST 1130G	World History I	
HIST 1150G	Western Civilization I	
Program Concentration Course [2]		3
	Hours	**16**
Spring		
ARTS 1240	Design I	3
Area III: - Choose one from the following:		4
ASTR 1115G	Introduction to Astronomy (Lec+Laboratory)	
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-based Physics I Laboratory	
PSYC 1110G	Introduction to Psychology (Area IV: Social/Behavioral Sciences)	3
ARTH 1115G	Orientation in Art (Area VI: Creative and Fine Arts)	3
Program Concentration Course [2]		3
	Hours	**16**
Second Year		
Fall		
COMM 1115G or COMM 1130G	Introduction to Communication (Area VII: Flexible 3 (General Education Elective)) or Public Speaking	3
Program Concentration Courses [2]		9

Elective Course [3]		3
	Hours	**15**
Spring		
ENGL 2382	Narrative: Principles of Story Across the Media	3
OEGR 221 or FDMA 2287	Cooperative Experience I or Digital Design Studio	1-3
Program Concentration Course [2]		9
	Hours	**13-15**
	Total Hours	**60-62**

1

MATH 1220G College Algebra or MATH 1130G Survey of Mathematics is required for the degree but students may need to take any prerequisites needed to enter MATH 1220G College Algebra or MATH 1130G Survey of MathematicsMATH 1130G Survey of Mathematics first.

2

Program Concentration Coursework:

- FDMA 1515 Introduction to Digital Image Editing - Photoshop
- FDMA 1110 Film History
- FDMA 1210 Digital Video Production I
- FDMA 1220 Introduction to Digital Video Editing
- FDMA 2520 Introduction to Cinematography
- FDMA 2210 Digital Video Production II
- FDMA 2285 Digital Video Production and Editing II
- FDMA 2994 Portfolio in Film & Digital Media Arts

3

For electives, select from ART, CMT, CMI or OEGR courses.
Elective credit may vary based on prerequisites, dual credit, AP credit, and/or certificate coursework. The amount indicated in the requirements list is the amount needed to bring the total to 60 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

Digital Video - Certificate

Code	Title	Hours
Technical Requirements		
FDMA 1110	Film History	3
FDMA 1210	Digital Video Production I	3
FDMA 1220	Introduction to Digital Video Editing	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 2210	Digital Video Production II	3
FDMA 2285	Digital Video Production and Editing II	3
FDMA 2520	Introduction to Cinematography	3
FDMA 2994	Portfolio in Film & Digital Media Arts	3
Total Hours		**24**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 1110	Film History	3
	Hours	**6**
Spring		
FDMA 2210	Digital Video Production II	3
FDMA 2285	Digital Video Production and Editing II	3
	Hours	**6**
Second Year		
Fall		
FDMA 1210	Digital Video Production I	3
FDMA 1220	Introduction to Digital Video Editing	3
	Hours	**6**
Spring		
FDMA 2520	Introduction to Cinematography	3
FDMA 2994	Portfolio in Film & Digital Media Arts	3
	Hours	**6**
	Total Hours	**24**

Digital Animation - Certificate

Code	Title	Hours
Technical Requirements		
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
FDMA 1535	Introduction to Illustrator	3
FDMA 1710	2D Animation	3
FDMA 1720	3D Character Design	3
FDMA 2530	Introduction to 3D Modeling	3
FDMA 2730	Advanced Character Animation	3
FDMA 2735	Advanced 3D Animation Workshop A	3
FDMA 2740	Advanced 3D Animation Workshop B	3
Total Hours		**24**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
FDMA 1535	Introduction to Illustrator	3
FDMA 1515	Introduction to Digital Image Editing - Photoshop	3
	Hours	**6**
Spring		
FDMA 1710	2D Animation	3
FDMA 2530	Introduction to 3D Modeling	3
Approved FDMA Elective		3
	Hours	**9**
Second Year		
Fall		
FDMA 1720	3D Character Design	3

FDMA 2730	Advanced Character Animation	3
Approved FDMA Elective		3
	Hours	**9**
Spring		
FDMA 2735	Advanced 3D Animation Workshop A	3
FDMA 2740	Advanced 3D Animation Workshop B	3
Approved FDMA Elective		3
	Hours	**9**
	Total Hours	**33**

Drafting and Graphics Technology

The **Drafting and Graphics Technology** program provides students with the education and experience for entry-level drafting positions with industrial companies, architectural firms, and government agencies. Students will learn how to develop working drawings and electronic simulations for architectural and related construction projects, basic construction and structural design, architectural rendering, architectural-aided drafting (CAD), layout and designs, architectural blueprint interpretation, and basic structural wiring diagramming.

Graduation Requirements

Certificate in Drafting and Graphics Technology: A cumulative GPA of 2.0 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC.

AAS in Drafting and Graphics Technology: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Drafting and Graphics Technology - Certificate (p. 102)
- Drafting and Graphics Technology Architectural Technology - Associate of Applied Science (p. 100)
- Drafting and Graphics Technology General Drafting - Associate of Applied Science (p. 101)

DRFT 100 Introduction to Architecture, Engineering, & Construction 3 Credits (3)
Introduction to and exploration of careers in the fields of architecture, engineering, and construction. Specific fields to include: architecture, civil engineering, mechanical engineering, structural engineering, engineering technology, residential construction, commercial construction, geographical information systems (GIS), surveying, sustainable design, and green building.
Crosslist: ARCH 1310
View Course Outcomes

DRFT 101 Introduction to Drafting and Design Technologies 1 Credit (1)
Professional and student organizations associated with the Drafting and Design Technologies program, degree requirements, employment skills and work habits, and university and college policies and procedures will be explored. Students will be introduced to the current learning management system and career-readiness certification.
View Course Outcomes

DRFT 105 Technical Drawing for Industry 3 Credits (3)
Technical sketching, basic CAD, and interpretation of drawings with visualization, speed and accuracy highly emphasized. Areas of focus include various trades such as machine parts, welding, heating and cooling, and general building sketches/plan interpretation. (2+2P)
View Course Outcomes

DRFT 108 Drafting Concepts/Descriptive Geometry 2 Credits (2)
Basic manual drafting skills, sketching, terminology and visualization. Graphical solutions utilizing applied concepts of space, planar, linear and point analyses. Metric and S.I. units introduced. (1+2P)
View Course Outcomes

DRFT 109 Computer Drafting Fundamentals 3 Credits (3)
Introduction to principles and fundamentals of drafting using both manual drawing techniques and computer-aided drafting (CAD) applications. (2+2P)
Repeatable: up to 3 credits
Crosslist: E T 109 and C E 109
View Course Outcomes

DRFT 112 Drafting Concepts/Computer Drafting Fundamentals I 4 Credits (4)
Basic drafting skills, terminology, and visualization. Introduction to principles and fundamentals of computer-aided drafting. Prerequisites: OECS 207, OECS 125. (2+4P)
View Course Outcomes

DRFT 113 Drafting Concepts/Computer Drafting Fundamentals II 4 Credits (4)
Drafting for mechanical/industrial applications; machine part detailing, assemblies in orthographic, isometric, auxiliary, oblique, and sectional views. Two-dimensional AutoCAD with introduction to 3-D AutoCAD. (2+4P)
Prerequisite(s): DRFT 112
Learning Outcomes
1. Create and draw a logo and title block
2. Design living spaces
3. Design and draw a workable floor plan, fully dimensioned with schedules
4. Locate and draw the floor plan on a site plan
5. Draw interior and exterior elevations
6. Draw sections and details
7. Save and plot

View Course Outcomes

DRFT 114 Introduction to Solid Modeling 3 Credits (3)
2D mechanical drafting and 3D mechanical solid modeling utilizing the latest version of AutoCAD software. Industry dimensioning and annotation standards will be emphasized. 2D multi-view working drawings, 3D solid models, and basic 3D model assemblies will be introduced.
Prerequisite(s): DRFT 109 (2+2P)
Learning Outcomes
1. Upon successful completion of this course, the student will have an understanding of and the ability to use CAD techniques.

View Course Outcomes

DRFT 115 General Construction Safety 3 Credits (3)
Overview of general construction safety related to building, highway and road construction, and surveying field work for entry-level individuals. Students will also have the opportunity to earn a 10-hour construction industry OSHA card.
Repeatable: up to 3 credits
View Course Outcomes

DRFT 124 Introduction to Geometric Dimensioning and Tolerancing 3 Credits (3)
Introduction to geometric dimensioning and tolerancing (GD&T) for the mechanical CAD drafting, solid modeling, mechanical engineering technology, mechanical engineering, and manufacturing industries. Related industry standard finishes and fasteners will also be introduced and explored. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 130 General Building Codes 3 Credits (3)
Interpretation of the Building Code, local zoning codes, A.D.A. Standards and the Model Energy Code to study construction and design requirements and perform basic plan checking. (2+2P)
View Course Outcomes

DRFT 135 Electronics Drafting I 3 Credits (3)
Drafting as it relates to device symbols; wiring, cabling, harness diagrams and assembly drawings; integrated circuits and printed circuit boards; schematic, flow and logic diagrams; industrial controls and electric power fields. Drawings produced using various CAD software packages. Prerequisites: DRFT 108 and DRFT 109. (2+2P)
View Course Outcomes

DRFT 143 Civil Drafting Fundamentals 3 Credits (3)
Introduction to drafting in the field of Civil Engineering. Drawings, projects, and terminologies related to topographic, contour drawings, plan and profiles, and street/highway layout. (2+2P)
Prerequisite(s): DRFT 109
Crosslist: E T 143
View Course Outcomes

DRFT 151 Construction Principles and Print Reading 3 Credits (3)
Introduction to construction materials, methods, and basic cost estimating and print reading applicable in today's residential, commercial, and public works industry. Instruction by print reading and interpretation, field trips, and actual job-site visits and progress evaluation. (2+2P)
View Course Outcomes

DRFT 153 Survey Drafting Applications 3 Credits (3)
Introduction to drafting in the field of survey engineering. Drawings, projects and terminologies related to Point Data, topography, land/boundary surveys, legal descriptions and plat surveys. Using the current Autodesk software. (2+2P)
Prerequisite(s): DRFT 109
Crosslist: SUR 143
View Course Outcomes

DRFT 160 Construction Take-Offs and Estimating 3 Credits (3)
Computing and compiling materials and labor estimates from working drawings using various techniques common in general building construction and in accordance with standard specifications and estimating formats. Use of spreadsheets and estimating software introduced. (2+2P)
Prerequisite(s): DRFT 151
View Course Outcomes

DRFT 163 Civil Infrastructure Detailing 3 Credits (3)
Infrastructure detailing related to civil engineering projects including: ponding, roadway, sewer, and storm-water structures; concrete foundations; and related utility details. (2+2P)
Prerequisite(s): DRFT 109
View Course Outcomes

DRFT 164 Intermediate Mechanical Drafting/Solid Modeling 3 Credits (3)
Intermediate 3D mechanical parametric solid modeling and assembly creation utilizing the latest version of Autodesk Inventor software. The creation of 2D working drawings from 3D solid models will be emphasized. Geometric Dimensioning and Tolerancing (GD&T), basic material properties, and industry standard fastening and manufacturing methods will be introduced. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 165 Introduction to Building Information Modeling 3 Credits (3)
Introduction to Building Information Modeling (BIM) in the development of virtual 3D building models, construction documents, renderings and basic animations related to architectural, structural, and mechanical/ electrical/plumbing building components. Utilizes the latest BIM technologies in the integration one, parametric BIM. (2+2P)
View Course Outcomes

DRFT 180 Residential Drafting 3 Credits (3)
Basic residential drafting including, floor plans, foundation plans, sections, roof plans, exterior and interior elevations, and site plans. Applicable residential building and zoning codes, construction methods and materials, adaptable residential design, and drawing and sheet layout for architectural drafting will be introduced. (2+2P)
Prerequisite(s): DRFT 109
Learning Outcomes

1. Create and draw a logo and title block
2. Design living spaces
3. Design and draw a workable floor plan, fully dimensioned with schedules
4. Locate and draw the floor plan on a site plan
5. Draw interior and exterior elevations
6. Draw sections and details
7. Save and plot

View Course Outcomes

DRFT 181 Commercial Drafting 3 Credits (3)
Drafting principles, plan coordination, and code analysis applicable in the development of working drawings for commercial, public, and industrial building projects. Students will utilize National Cad Standards, ADA Standards, and will be introduced to modern office practice. (2+2P)
Prerequisite(s): DRFT 109
Repeatable: up to 3 credits
Learning Outcomes

1. Upon successful completion of this course, the student will understand and the ability to use CAD techniques in construction.

View Course Outcomes

DRFT 190 Finding and Maintaining Employment 2 Credits (2)
Techniques in self-evaluations, resume writing, application completion, job interviewing, and job retention. Exposure to work ethics, employee attitudes, and employer expectations.
View Course Outcomes

DRFT 204 Geographic Information Systems Technology 3 Credits (3)
The use of digital information for which various digitized data creation methods are captured. Users will capture, store, analyze and manage spatially referenced data in a modeled mapping procedure. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

DRFT 214 Advanced Solid Modeling 3 Credits (3)
Advanced 3D mechanical parametric solid modeling and assembly creation utilizing the latest version of Solidworks software. The creation of 2D working drawings from 3D solid models and the creation of 3D models for machining/manufacturing will be emphasized. Geometric Dimensioning and Tolerancing (GD&T), material properties, and industry standard fastening and manufacturing methods will be further explored. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 222 Introduction to Geomatics 3 Credits (3)
Theory and practice of geomatics as applied to plane surveying in the areas of linear measurements, angle measurements, area determination, differential and trigonometric leveling, and topographic mapping. (2+3P)
Prerequisite(s): MATH 1250G or MATH 1430G
Crosslist: SUR 222
View Course Outcomes

DRFT 230 Building Systems Drafting 3 Credits (3)
Development of working drawings for electrical, plumbing, and HVAC systems, for residential and commercial building through the applications of both 2D Drafting and 3D Building Information Modeling (BIM) techniques. Basics of project setup, National CAD Standards, ADA Standards, modern office practice, code analysis, as well as Sustainability and LEED for new construction. (2+2P)
Prerequisite(s): DRFT 180 or DRFT 181
View Course Outcomes

DRFT 240 Structural Systems Drafting 3 Credits (3)
Study of foundations, wall systems, floor systems and roof systems in residential, commercial and industrial design/construction. Produce structural drawings including foundation plans, wall and building sections, floor and roof framing plans, shop drawings and details; schedules, materials lists and specifications. Use of various software. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 180 or DRFT 181
Repeatable: up to 3 credits
View Course Outcomes

DRFT 242 Roadway Development Drafting 3 Credits (3)
Advanced civil/survey technology and drafting related to roadway development. Emphasis is on relevant terminology, codes/standards, and the production of complex working drawings such as topographical/ grading, drainage, master utilities, roadway P P/details/etc., according to agency standards. (2+2P)
Prerequisite(s): DRFT 143
Repeatable: up to 3 credits
View Course Outcomes

DRFT 243 Land Development Drafting 3 Credits (3)
Advanced civil/survey technology and drafting related to land development. Emphasis is on relevant terminology codes/standards, and the production of complex working drawings such as subdivision plats, local utility and drainage plans, construction details roadway P P, etc., according to local development/agency standards. (2+2P)
Prerequisite(s): DRFT 143 and DRFT 153
View Course Outcomes

DRFT 250 Principles of Detailing and Design 3 Credits (3)
Advanced practice in construction documentation in the development and coordination of working drawings & specifications. In particular, will utilize Architectural Graphic Standards, National CAD Standards, and ADA standards to develop detail drawings related to Architectural, Civil, Structural and Building Mechanical systems. Will also be introduced to basic principles, factors, and process of building design such as space planning, site analysis, and basic architectural programming. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 180 or DRFT 181
Repeatable: up to 3 credits
View Course Outcomes

DRFT 254 Spatial Data Processing 3 Credits (3)
Utilizes the tools and technologies of GIS, processing volumes of geodata identifying a numerical, coded or listed map. Involves the analysis of spatial data from various diverse applications and place in a descriptive mapping process. (2+2P)
Prerequisite(s): DRFT 204
Repeatable: up to 3 credits
View Course Outcomes

DRFT 255 Independent Study 1-3 Credits
Instructor-approved projects in drafting or related topics specific to the student's individual areas of interest and relevant to the drafting and graphics technology curriculum. Consent of instructor required.
Repeatable: for a maximum of 6 credits
View Course Outcomes

DRFT 258 Introduction to Infraworks 3 Credits (3)
Introduction to the utilization of Infraworks software for the conceptualization, optimization, and visualization of infrastructure projects in the context of the built and natural environment. (2+2P)
Prerequisite(s): DRFT 143
View Course Outcomes

DRFT 265 Advanced Building Information Modeling Applications 3 Credits (3)
Advanced applications of Building Information Modeling (BIM) including the creation of, and practice in collaborative work sets, data and design analyses, energy modeling and analysis, preliminary LEED analysis, construction take-offs & estimation, and construction animation, through use of various BIM and related software. (2+2P)
Prerequisite(s): DRFT 165
View Course Outcomes

DRFT 274 GIS Theory and Analysis 3 Credits (3)
Analyzes the hypothesis in which location and spatial data sufficiently quantities the appropriate statistical methodology. (2+2P)
Prerequisite(s): DRFT 254
Repeatable: up to 3 credits
View Course Outcomes

DRFT 276 Computer Rendering and Animation I 3 Credits (3)
Introduction to technical applications of computer generated renderings and animations for the architecture and engineering fields. 3D models, photo-realistic renderings, and basic animation movie files will be produced utilizing industry standard modeling and animation software. (2+2P)
View Course Outcomes

DRFT 288 Portfolio Development 3 Credits (3)
Production of a portfolio consisting of previously produced student work related to the student's individualized degree option. Process shall include the compilation and organization of working and presentation drawings, construction documents, BIM Models, and renderings/ animations. Students will learn the basics of design layout and online portfolio documentation. Job search and resume preparation activities will also be required. Production of new material and content may also be required. This course is designed as a last semester course in the Drafting & Design curricula. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

DRFT 290 Special Topics 4 Credits (4)
Topics subtitled in the Schedule of Classes.
Repeatable: for a maximum of 12 credits
View Course Outcomes

DRFT 291 Cooperative Experience 6 Credits (6)
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student meets with advisor weekly. Graded S/U.
View Course Outcomes

DRFT 295 Professional Development and Leadership DAGA 1 Credit (1)
Students gain experience in leadership, team building, performing community service, and membership and/or leadership in a student organization.
Repeatable: up to 6 credits
View Course Outcomes

Drafting and Graphics Technology Architectural Technology - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Courses required from Area I, II, III, IV, V, and VI. [1,2]		19-20
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [1]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
PSYC 1110G	Introduction to Psychology (Technical Requirement) [1]	
or SOCI 111(	Introduction to Sociology	
Area V: Humanities		

	Area VI: Creative and Fine Arts	
Technical Requirements		
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 114	Introduction to Solid Modeling	3
DRFT 130	General Building Codes	3
DRFT 143	Civil Drafting Fundamentals	3
DRFT 160	Construction Take-Offs and Estimating	3
DRFT 180	Residential Drafting	3
DRFT 181	Commercial Drafting	3
DRFT 230	Building Systems Drafting	3
DRFT 240	Structural Systems Drafting	3
DRFT 288	Portfolio Development	3
ENGL 2210G	Professional & Technical Communication	3
Approved DRFT Electives		3
Total Hours		**60-61**

[1]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

[2]

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 130	General Building Codes	3
Approved DRFT elective		2
GEN Ed course - One course from Areas I-VI [1,2]		3
	Hours	**12**
Spring		
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 160	Construction Take-Offs and Estimating	3
GEN Ed course - One course from Areas I-VI [1,2]		3
GEN Ed course - One course from Areas I-VI [1,2]		3-4
Approved DRFT elective		2
	Hours	**15-16**
Second Year		
Fall		
DRFT 143	Civil Drafting Fundamentals	3
DRFT 180	Residential Drafting	3
DRFT 230	Building Systems Drafting	3
GEN Ed course - One course from Areas I-IV [1,2]		3-4
Approved DRFT Elective		3
	Hours	**15-16**

Spring		
DRFT 114	Introduction to Solid Modeling	3
DRFT 240	Structural Systems Drafting	3
DRFT 288	Portfolio Development	3
DRFT 181	Commercial Drafting	3
General Education Elective - Any "G" course [2]		3-4
Approve DRFT Elective		3
	Hours	**18-19**
	Total Hours	**60-63**

[1]

Each course selected must be from a different area and students cannot take multiple courses in the same area.

[2]

See the General Education section of the catalog for a full list of courses.

Drafting and Graphics Technology General Drafting - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V, and VI. [1,2]		19-20
	Area I: Communications	
ENGL 1110G	Composition I (Technical Requirement) [1]	
	Area II: Mathematics	
	Area III: Laboratory Science	
	Area IV: Social/Behavioral Sciences	
PSYC 1110G	Introduction to Psychology (Technical Requirement) [1]	
or SOCI 1110	Introduction to Sociology	
	Area V: Humanities	
	Area VI: Creative and Fine Arts	
Technical Requirements		
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 114	Introduction to Solid Modeling	3
DRFT 130	General Building Codes	3
DRFT 143	Civil Drafting Fundamentals	3
DRFT 151	Construction Principles and Print Reading	3
DRFT 180	Residential Drafting	3
DRFT 181	Commercial Drafting	3
DRFT 276	Computer Rendering and Animation I	3
DRFT 288	Portfolio Development	3
ENGL 2210G	Professional & Technical Communication	3

Approved DRFT Electives		6
Total Hours		**60-61**

1

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

2

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 130	General Building Codes	3
ENGL 1110G	Composition I (Area I: Communications)	4
Approved DRFT elective		2
	Hours	**13**
Spring		
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 276	Computer Rendering and Animation I	3
PSYC 1110G or SOCI 1110G	Introduction to Psychology (Area IV: Social/Behavioral Sciences) or Introduction to Sociology	3
Area III: Laboratory Science		4
Approved DRFT elective		2
	Hours	**16**
Summer		
Area II: Mathematics		3
Area VI: Creative and Fine Arts		3
	Hours	**6**
Second Year		
Fall		
Approved DRFT elective		6
DRFT 143	Civil Drafting Fundamentals	3
DRFT 180	Residential Drafting	3
ENGL 2210G	Professional & Technical Communication (Area VII: Flexible 3 (General Education Elective))	3
	Hours	**15**
Spring		
DRFT 151	Construction Principles and Print Reading	3
DRFT 114	Introduction to Solid Modeling	3
DRFT 181	Commercial Drafting	3
DRFT 288	Portfolio Development	3
Area V: Humanities		3
Approved DRFT Elective		3
	Hours	**18**
	Total Hours	**68**

1

Each course selected must be from a different area and students cannot take multiple courses in the same area.

2

See the General Education section of the catalog for a full list of courses.

Drafting and Graphics Technology - Certificate

Architectural Drafting Option

Code	Title	Hours
Technical Requirements		
DRFT 101	Introduction to Drafting and Design Technologies	1
DRFT 108	Drafting Concepts/Descriptive Geometry	2
DRFT 109	Computer Drafting Fundamentals	3
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 114	Introduction to Solid Modeling	3
DRFT 130	General Building Codes	3
DRFT 160	Construction Take-Offs and Estimating	3
DRFT 180	Residential Drafting	3
Total Hours		**26**

General Drafting Option

Code	Title	Hours
Technical Requirements		
DRFT 101	Introduction to Drafting and Design Technologies	1
DRFT 108	Drafting Concepts/Descriptive Geometry	2
DRFT 109	Computer Drafting Fundamentals	3
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 114	Introduction to Solid Modeling	3
DRFT 130	General Building Codes	3
DRFT 151	Construction Principles and Print Reading	3
DRFT 160	Construction Take-Offs and Estimating	3
DRFT 180	Residential Drafting	3
Total Hours		**29**

Architectural Drafting
A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
DRFT 101	Introduction to Drafting and Design Technologies	1
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 130	General Building Codes	3

DRFT 109	Computer Drafting Fundamentals (DRFT elective)	3
	Hours	**11**
Spring		
DRFT 108	Drafting Concepts/Descriptive Geometry	2
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 160	Construction Take-Offs and Estimating	3
DRFT 180	Residential Drafting	3
DRFT 114	Introduction to Solid Modeling	3
	Hours	**15**
	Total Hours	**26**

General Drafting
A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
DRFT 101	Introduction to Drafting and Design Technologies	1
DRFT 108	Drafting Concepts/Descriptive Geometry	2
DRFT 112	Drafting Concepts/Computer Drafting Fundamentals I	4
DRFT 130	General Building Codes	3
DRFT 114	Introduction to Solid Modeling	3
	Hours	**13**
Spring		
DRFT 113	Drafting Concepts/Computer Drafting Fundamentals II	4
DRFT 151	Construction Principles and Print Reading	3
DRFT 109	Computer Drafting Fundamentals	3
DRFT 160	Construction Take-Offs and Estimating	3
DRFT 180	Residential Drafting	3
	Hours	**16**
	Total Hours	**29**

Early Childhood Education

The **Early Childhood Education** program prepares students to become highly qualified teachers, assistant teachers, family daycare providers, or administrators of early education programs for children ages birth through age eight. Students will gain a broad understanding of the specific needs of young children and develop strategies for meeting those needs.

The **Early Childhood Education Certificate** is a vocational certificate for students who are interested in the field of education for children birth to eight years of age. This Certificate can be the starting point for individuals who want to complete an Associate Degree in Early Childhood Education. The Certificate is 100% embedded in the Early Childhood Education Associate Degree. The Certificate program can be completed in one year and requires completion of 33 credits. The Associate Degree in Early Childhood Education program can be completed in two years and requires completion of 60 credits.

The course of study provides opportunities for students to gain knowledge in areas such as child development, health and safety, curriculum, professionalism, assessment, and ethics. Students will receive teacher training for work in public and private schools and other settings. Students who complete the **Early Childhood Administrative Certificate** are eligible to apply for an early childhood administrative specialist certificate with the New Mexico Office of Early Childhood Education & Care Department (https://www.nm.gov/departments-and-agencies/early-childhood-education-and-care-department/); the permanent certificate is granted upon completion the Associate Degree in Early Childhood Education.

Early care and education professionals are eligible for a vocational certificate in the area of Early Childhood Educator. The certificate indicates completion of the early childhood "vocational" courses (approximately 29 credit hours) within the associate degree program's transfer module. Contact theNew Mexico Office of Early Childhood Education & Care Department (https://www.nm.gov/departments-and-agencies/early-childhood-education-and-care-department/) for more information.

Graduation Requirements

Early Childhood Administrative Certificate: A cumulative GPA of 2.5 or higher; at least 9 of the credits must taken at SENMC. Students must complete ENGL 1110G Composition I with a C- or better. Students are required to pass a security background check in order to take certain courses. Criminal violations may prevent a student from completing the certificate. Students must have a cumulative 2.5 GPA to apply for this certificate, and a C- or better is required in all ECED courses. ECED courses taken more than 7 years prior to graduation must be repeated.

Associate Degree in Early Childhood Education: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.5 or higher; a minimum of 15 credits must be taken at SENMC.

- Early Childhood Education - Associate Degree (p. 110)
- Early Childhood Education - Certificate (p. 111)

ECED 1110 Child Growth, Development, and Learning 3 Credits (3)

This basic course in the growth, development, and learning of young children, prenatal through age eight, provides students with the theoretical foundation for becoming competent early childhood professionals. The course includes knowledge of how young children grow, develop and learn. Major theories of child development are integrated with all domains of development, including biological-physical, social, cultural, emotional, cognitive and language. The adult's role in supporting each child's growth, development and learning is emphasized.

Learning Outcomes

1. Incorporate understanding of developmental stages, processes, and theories of growth, development, and learning into developmentally appropriate practice. A.1

2. Demonstrate knowledge of the interaction between maturation and environmental factors that influence physical, social, emotional, cognitive, and cultural domains in the healthy development of each child. A.2

3. Demonstrate knowledge of the significance of individual differences in development and learning.

4. Demonstrate knowledge of how certain differences may be associated with rate of development and

5. developmental patterns associated with developmental delays and/or specific disabilities. A.3

6. Demonstrate knowledge of the similarities between children who are developing typically and those with diverse abilities. A.4

7. Demonstrate knowledge of the many functions that language serves in the cognitive, social, and emotional aspects of development in the formative years. A.7

8. Demonstrate knowledge of the developmental sequence of language and literacy, including the

9. influence of culture and home factors. A.8 1

10. Demonstrate knowledge of how children acquire and use verbal, non-verbal, and alternative means of communication. A.9 1

11. Demonstrate knowledge of the relationship among emotions, behaviors, and communication skills to assist children in identifying and expressing their feelings in appropriate ways. A.10 1

12. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11

View Course Outcomes

ECED 1115 Health, Safety, and Nutrition 2 Credits (2)

This course provides information related to standards and practices that promote children's physical and mental well-being sound nutritional practices, and maintenance of safe learning environments. It includes information for developing sound health and safety management procedures for indoor and outdoor learning environments for young children. The course examines the many scheduling factors that are important for children's total development, healthy nutrition, physical activity, and rest.

Learning Outcomes

1. Recognize and respond to each child's physical health, intellectual and emotional well-being, and nutritional and safety needs. B.1

2. Articulate an understanding of indoor and outdoor learning environments that provide opportunities for children to put into practice healthy behaviors (physically, socially and emotionally). B.2

3. Use appropriate health appraisal and management procedures and makes referrals when necessary. B.3

4. Recognize signs of emotional distress, child abuse, and neglect in young children and use procedures appropriate to the situation, such as initiating discussions with families, referring to appropriate professionals, and, in cases of suspected abuse or neglect, reporting to designated authorities. B.4

5. Establish an environment that provides opportunities and reinforcement for children's practice of healthy behaviors that promote appropriate nutrition and physical and psychological well-being. B.5

6. Provide a consistent daily schedule for rest/sleep, as developmentally appropriate. B.6

7. Implement health care and educational activities for children and families based on health and nutritional information that is responsive to diverse cultures. B.7

8. Assist young children and their families, as individually appropriate, in developing decision-making and interpersonal skills that enable them to make healthy choices and establish health-promoting behaviors. B.8

View Course Outcomes

ECED 1120 Guiding Young Children 3 Credits (3)

This course explores various theories of child guidance and the practical applications of each. It provides developmentally appropriate methods for guiding children and effective strategies and suggestions for facilitating positive social interactions. Strategies for preventing challenging behaviors through the use of environment, routines and schedule will be presented Emphasis is placed on helping children become self- responsible, competent, independent, and cooperative learners and including families as part of the guidance approach.

Learning Outcomes

1. Apply knowledge of cultural and linguistic diversity and the significance of socio-cultural and political contexts for development and learning and recognize that children are best understood in the contexts of family, culture and society. A.6

2. Demonstrate knowledge of the many functions that language serves in the cognitive, social, and emotional aspects of development in the formative years. A.7

3. Demonstrate knowledge of the relationship among emotions, behaviors, and communication skills to assist children in identifying and expressing their feelings in appropriate ways. A.10

4. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11

5. Recognize and respond to each child's physical health, intellectual and emotional well-being, and nutritional and safety needs. B.1

6. Demonstrate knowledge and skill in building positive, reciprocal relationships with families. C.1

7. Demonstrate knowledge of and respect for variations across cultures, in terms of family strengths, expectations, values, and child-rearing practices. C.4

8. Demonstrate the ability to incorporate the families' desires and goals for their children into classroom or intervention strategies. C.7

9. Demonstrate knowledge and skills in developmentally appropriate guidance techniques and strategies that provide opportunities to assist children in development positive thoughts and feelings about themselves and others through cooperative interaction with peers and adults. E.3 1

10. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7 1

11. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the application of this.

View Course Outcomes

ECED 1125 Assessment of Children and Evaluation of Programs 3 Credits (3)

This basic course familiarizes students with a variety of culturally appropriate assessment methods and instruments, including systematic observation of typically and non-typically developing children. The course addresses the development and use of formative and summative assessment and evaluation instruments to ensure comprehensive quality of the total environment for children, families, and the community. Students will develop skills for evaluating the assessment process and involving other teachers, professionals and families in the process. Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H)

Learning Outcomes

1. Demonstrate ability to choose valid tools that are developmentally, culturally, and linguistically appropriate; use the tools correctly; make appropriate referrals; and interpret assessment results, with the goal of obtaining valid, useful information to inform practice and decision making. F.1

2. Demonstrate knowledge of maintaining appropriate records of children's development and behavior that safeguard confidentiality and privacy. F.2

3. Demonstrate knowledge of the educator's role as a participating member of the assessment process as described and mandated by state and federal regulations for Individual family service plans (IFSP) and individual education plans (IEP). F.3

4. Demonstrate understanding of the influences of environmental factors, cultural/linguistic differences, and diverse ways of learning on assessment outcomes. F.4

5. Involve the family and, as appropriate, other team members in assessing the child's development, strengths, and needs in order to set goals for the child. F.5

6. Articulate an understanding of the distinctions and definitions of assessment concepts (e.g., screening, diagnostic assessment, standardized, testing, accountability assessment). F.6

7. Apply understanding of assessment concepts toward selection of appropriate formal assessment measures, critiquing the limitations of inappropriate measures, and discussing assessment issues as part of interdisciplinary teams. F.7

8. Articulate an understanding that responsible assessment is legally and ethically grounded and guided by sound professional. It standards is collaborative and open with the goal of supporting diverse children and families. F.8

9. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the Application of this data to curriculum development and/or intervention planning. F.9

10. Demonstrate knowledge of a variety of techniques and procedures to evaluate and modify program goals for young children and their families. F.1

11. Demonstrate knowledge and use of program evaluation to ensure comprehensive quality of the total Environment for children, families, and the community. F.11

12. Use both self and collaborative evaluations as part of ongoing program evaluations. F.12

View Course Outcomes

ECED 1130 Family and Community Collaboration 3 Credits (3)
This beginning course examines the involvement of families and communities from diverse cultural and linguistic backgrounds in early childhood programs. Ways to establishes collaborative relationships with families in early childhood settings is discussed. Families' goals and desires for their children will be supported through culturally responsive strategies. Repeatable: up to 3 credits.
Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H or ENGL 1110M)
Learning Outcomes
1. Demonstrate knowledge and skill in building positive, reciprocal relationships with families. C.1
2. Articulate an understanding of a safe and welcoming environment for families and community members. C.2
3. Develop and maintain ongoing contact with families through a variety of communication strategies. C.3
4. Demonstrate knowledge of and respect for variations across cultures, in terms of family strengths, expectations, values, and child-rearing practices. C.4
5. Articulate understanding of the complexity and dynamics of family systems. C.5
6. Demonstrate understanding of the importance of families as the primary educator of their child. C.6
7. Involve families and community members in contributing to the learning environment. C.9
8. Demonstrate ability to communicate to families the program's policies, procedures, and those procedural safeguards that are mandated by state and federal regulations. C.11
9. Apply knowledge of family theory and research to understand family and community characteristics including socioeconomic conditions; family structures, relationships, stressors, and supports (including the impact of having a child with diverse abilities); home language and ethnicity. C.12 1
10. Demonstrate knowledge of and skill to access community resources that assist families and contribute directly or indirectly to children's positive development such as mental health services, health care, adult education, English language instruction, and economic assistance. C.13 1
11. Demonstrate effective written and oral communication skills when working with children, families, and early care, education, and family support professionals. E.14 1
12. Demonstrate a commitment to leadership and advocacy for excellence in programs and services for young children and their families. G.6

View Course Outcomes

ECED 2110 Professionalism 2 Credits (2)
This course provides a broad-based orientation to the field of early care and education. Early childhood history, philosophy, ethics and advocacy are introduced. Basic principles of early childhood systems are explored.
Learning Outcomes
1. Recognize signs of emotional distress, child abuse, and neglect in young children and use procedures appropriate to the situation, such as initiating discussions with families, referring to appropriate professionals, and, in cases of suspected abuse or neglect, reporting to designated authorities. B.4
2. Demonstrate ability to communicate to families the program's policies, procedures, and those procedural safeguards that are mandated by state and federal regulations. C.11
3. Use both self and collaborative evaluations as part of ongoing program evaluations. F.12
4. Demonstrate ability to adhere to early childhood professional codes of ethical conduct and issues of confidentiality. G.1
5. Demonstrate awareness of federal, state, and local regulations, and public policies regarding programs and services for children birth through eight years of age. G.2
6. Demonstrate understanding of conditions of children, families, and professionals; the historical and current issues and trends; legal issues; and legislation and other public policies affecting children, families, and programs for young children and the early childhood profession. G.3
7. Demonstrate critical reflection of one's own professional and educational practices from community, state, national, and global perspectives. G.4
8. Demonstrate understanding of the early childhood profession, its multiple historical, philosophical, and social foundations, and how these foundations influence current thought and practice. G.5
9. Demonstrate knowledge in technology resources to engage in ongoing professional development. G.7

View Course Outcomes

ECED 2115 Introduction into Language, Literacy, and Reading 3 Credits (3)

This course is designed to prepare early childhood professionals for promoting children's emergent literacy and reading development. Through a developmental approach, the course addresses ways in which early childhood professionals can foster young children's oral language development, phonemic awareness, and literacy problem solving skills, fluency, vocabulary, and comprehension. . This course provides the foundation for early childhood professionals to become knowledgeable about literacy development in young children. Instructional approaches and theory-based and research based strategies to support the emergent literacy and reading skills of native speakers and English language learners will be presented. Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H, or ENGL 1110M)

Learning Outcomes

1. Demonstrate knowledge of the many functions that language serves in the cognitive, social, and emotional aspects of development in the formative years. A.7

2. Demonstrate knowledge of the developmental sequence of language and literacy, including the influence of culture and home factors. A.8

3. Demonstrate knowledge of how children acquire and use verbal, non-verbal, and alternative means of communication. A.9

4. Develop partnerships with family members to promote early literacy in the home. C.8

5. Establish partnerships with community members in promoting literacy. C.10

6. Demonstrate knowledge of the reading and writing components of emergent literacy at each developmental level. D.4

7. Provide and use anti-bias materials/literature and experiences in all content areas of the curriculum. D.7

8. Create and manage a literacy-rich environment that is responsive to each child's unique path of development. E.9

9. Use a variety of strategies during adult-child and child-child interactions and facilitate communication and dialogue of expressive language and thought. E.10 1

10. Demonstrate a variety of developmentally appropriate instructional strategies that facilitate the development of literacy skills. E.11

View Course Outcomes

ECED 2120 Curriculum Development through Play Birth through Age 4 (PreK) 3 Credits (3)

The beginning curriculum course places play at the center of curriculum in developmentally appropriate early childhood programs. It addresses content that is relevant for children birth through age four in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age four, is emphasized.Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H or ENGL 1110M)

Corequisite(s): ECED 2121

Learning Outcomes

1. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11

2. Demonstrate knowledge of relevant content for young children and developmentally appropriate ways of integrating content into teaching and learning experiences for children from birth to four (0-4) years of age. D.1

3. Demonstrate the integration of knowledge of how young children develop and learn with knowledge of the concepts, inquiry tools, and structure of content areas appropriate for different developmental levels. D.2

4. Adapt content to meet the needs of each child, including the development of individualized family service plans (IFSP) or individualized education plans (IEP) for children with diverse abilities through the team process with families and other team members. D.6

5. Demonstrate knowledge of varying program models and learning environments that meet the individual needs of all young children, including those with diverse abilities. E.1

6. Create environments that encourage active involvement, initiative, responsibility, and a growing sense of autonomy through the selection and use of materials and equipment that are suitable to individual learning, developmental levels, diverse abilities, and the language and cultures in New Mexico. E.2

7. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4

8. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5

9. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6 1

10. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7 1

11. Use and explain the rationale for developmentally appropriate methods that include play, small group projects, open-ended questioning, group discussion, problem solving, cooperative learning and inquiry experiences to help young children develop intellectual curiosity, solve problems, and make decisions. E.8 1

12. Demonstrate a variety of developmentally appropriate instructional strategies that facilitate the development of emergent literacy skills. E.11 1

13. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the application of this data to curriculum development of intervention planning. F.9

View Course Outcomes

ECED 2121 Curriculum Development through Play Birth through Age 4 (PreK) Practicum 2 Credits (2)

The beginning practicum course is a co-requisite with the course Curriculum Development through Play – Birth through Age 4. The field-based component of this course will provide experiences that address curriculum content that is relevant for children birth through age four in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age four, is emphasized.Repeatable: up to 2 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H or ENGL 1110M)

Corequisite(s): ECED 2120

Learning Outcomes

1. Provide a variety of activities that facilitate development of the whole child in the following areas: Physical/motor, social/emotional, language/cognitive and adaptive/living skills. A.5

2. Develop, implement and evaluate an integrated curriculum that focuses on children's development and interests, using their language, home experiences, and cultural values. D.5

3. Provides and uses anti-bias materials and literature, and experiences in all content areas of the curriculum. D.7

4. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4

5. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5

6. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6

7. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7

8. Use and explain the rationale for developmentally appropriate methods that include play, small group projects, open-ended questioning, group discussion, problem solving, cooperative learning and inquiry experiences to help young children develop intellectual curiosity, solve problems, and make decisions. E.8

View Course Outcomes

ECED 2130 Curriculum Development and Implementation Age 3 (PreK) through Grade 3 3 Credits (3)

The curriculum course focuses on developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills, is emphasized. Information on adapting content areas to meet the needs of children with special needs and the development of IEPs is included. Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110, ECED 2120 and ECED 2121 (ENGL 1110G or ENGL 1110H)

Learning Outcomes

1. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11

2. Demonstrate the integration of knowledge of how young children develop and learn with knowledge of the concepts, inquiry tools, and structure of content areas appropriate for different developmental levels. D.2

3. Demonstrate knowledge of what is important in each content area, why it is of value, and how it links with early and later understandings within and across areas. D.3

4. Demonstrate knowledge of the language, reading and writing components of emergent literacy at each developmental level. D.4

5. Adapt content to meet the needs of each child, including the development of individualized family service plans (IFSP) or individualized education plans (IEP) for children with diverse abilities through the team process with families and other team members. D.6

6. Demonstrate knowledge of varying program models and learning environments that meet the individual needs of all young children, including those with diverse abilities. E.1

7. Create environments that encourage active involvement, initiative, responsibility, and a growing sense of autonomy through the selection and use of materials and equipment that are suitable to individual learning, developmental levels, diverse abilities, and the language and cultures in New Mexico. E.2

8. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4

9. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5 1

10. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6 1

11. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7 1

12. Demonstrate knowledge of developmentally appropriate uses of technology, including assistive technology. E.12 1

13. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the application of this data to curriculum development of intervention planning. F.9

View Course Outcomes

ECED 2131 Curriculum Dvlpmnt & Implementation Age 3 (PreK) through Grade 3 Practicum 2 Credits (2)

The beginning practicum course is a co-requisite with the course Curriculum Development and Implementation: Age 3 through Grade 3. The field based component of this course will provide experiences that address developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills is emphasized. Information on adapting content areas to meet the needs of children with special needs and the development of IEPs is included. Repeatable: up to 2 credits.

Prerequisite(s): ECED 1110 (ENGL 1110G or ENGL 1110H), ECED 2120, and ECED 2121

Corequisite(s): ECED 2130

Learning Outcomes

1. Provide a variety of activities that facilitate development of the whole child in the following areas: Physical/motor, social/emotional, language/cognitive and adaptive/living skills. A.5

2. Develop, implement and evaluate an integrated curriculum that focuses on children's development and interests, using their language, home experiences, and cultural values. D.5

3. Provides and uses anti-bias materials and literature, and experiences in all content areas of the curriculum. D.7

4. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4

5. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5

6. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6

7. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7

8. Use and explain the rationale for developmentally appropriate methods that include play, small group projects, open-ended questioning, group discussion, problem solving, cooperative learning and inquiry experiences to help young children develop intellectual curiosity, solve problems, and make decisions. E.8

View Course Outcomes

ECED 2140 Effective Program Development for Diverse Learners and their Families 3 Credits (3)

This course 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. Repeatable: up to 3 credits.

Learning Outcomes

1. Describe important aspects of leadership that an administrator in an early childhood setting must demonstrate.

2. Identify and describe ways in which classrooms can have a multicultural environment.

3. Observe a classroom and identify, using photographs, good practice with classroom environment.

4. Describe important aspects of a good early childhood curriculum.

5. Describe how culture and socioeconomic factors influence classroom environment.

View Course Outcomes

ECED 2141 Effective Program Development for Diverse Learners and their Families Pract 2 Credits (2)

Provides opportunities for students to apply knowledge gained from Curriculum for Diverse Learners and their Families in a practicum setting. Restricted to ECED majors. Repeatable: up to 2 credits.

Corequisite(s): ECED 2140

View Course Outcomes

ECED 2215 Program Management 3 Credits (3)

This course emphasizes the technical knowledge necessary to develop and maintain an effective early care and education program. It focuses on sound financial management and vision, the laws and legal issues that affect programs, and state and national standards such as accreditation. Repeatable: up to 3 credits.

Learning Outcomes

1. Develop a comprehensive program philosophy.

2. Demonstrate the ability to develop systems that are effective for quality program operation.

3. Create a program budget and understand the Income and Expense sides and what affects each part.

4. Model best practices that integrate various leadership styles.

View Course Outcomes

ECED 2280 Professional Relationships 3 Credits (3)
This course addresses staff relations that will foster diverse professional relationships with families, communities and boards. Topics of staff recruitment, retention, support and supervision will lay the foundation for positive personnel, family and community relationships. Repeatable: up to 3 credits.
Corequisite(s): ECED 2281
Learning Outcomes
1. Interview an administrator and write a paper describing personnel management, staff support, supervision, and professional development.
2. Identify and describe ethical and legal requirements in maintaining a professional relationship with subordinates, the community, clients, and fellow administrators.
3. Identify and describe technologies which may be used in an early childhood setting.
4. Identify and describe legal and ethical considerations in the employment of others.

View Course Outcomes

ECED 2281 Professional Relationships Practicum 2 Credits (2)
Practical experience in the development of staff relationship that will foster professional relationships with families, communities and boards. Issues of staff recruitment, retention, support and supervision will lay a foundation for positive personnel management. Restricted to ECED majors.
Corequisite(s): ECED 2280
View Course Outcomes

Early Childhood Education - Associate Degree

Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Students must maintain a cumulative 2.5 GPA to graduate with no less than a "C-" in any of the ECED courses.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	
English Composition - Level 2		3
ENGL 2210G	Professional & Technical Communication	
or ENGL 222	Writing in the Humanities and Social Science	
Oral Communication		3
COMM 1115G	Introduction to Communication	
or COMM 11	Public Speaking	
Area II: Mathematics [1]		3
MATH 2134G	Fundamentals of Elementary Math II [1]	
or MATH 121	College Algebra	
Area III: Laboratory Science [1]		8
Choose two courses from two different subjects:		
ASTR 1115G	Introduction to Astronomy (Lec+Laboratory)	
ASTR 1120G	The Planets	
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory	
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Laboratory	
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	
ENVS 1110G	Environmental Science I	
GEOL 1110G	Physical Geology	
PHYS 1115G	Survey of Physics with Laboratory	
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-based Physics I Laboratory	
Area IV: Social/Behavioral Sciences [1]		3
Choose one from the following:		
ANTH 1140G	Introduction to Cultural Anthropology	
GEOG 1120G	World Regional Geography	
GEOG 1130G	Human Geography	
POLS 1110G	Introduction to Political Science	
POLS 1120G	American National Government	
PSYC 1110G	Introduction to Psychology	
SOCI 1110G	Introduction to Sociology	
Area V: Humanities [1]		3
Choose one of the following:		
HIST 1120G	United States History II	
HIST 1130G	World History I	
HIST 1140G	World History II	
Area VI: Creative and Fine Arts [1]		3
Choose one from the following:		
ARTH 1115G	Orientation in Art	
MUSC 1130G	Music Appreciation: Western Music	
THEA 1110G	Introduction to Theatre	
Area VII: Flexible 3 (General Education Elective)		3
CEPY 1120G	Human Growth and Behavior (Core Requirement) [1]	
Core Curriculum Requirements [2]		
ECED 1110	Child Growth, Development, and Learning	3
ECED 1115	Health, Safety, and Nutrition	2
ECED 1130	Family and Community Collaboration	3
ECED 2120	Curriculum Development through Play Birth through Age 4 (PreK)	3
ECED 2121	Curriculum Development through Play Birth through Age 4 (PreK) Practicum	2
ECED 2130	Curriculum Development and Implementation Age 3 (PreK) through Grade 3	3
ECED 2131	Curriculum Dvlpmnt & Implementation Age 3 (PreK) through Grade 3 Practicum	2
ECED 2115	Introduction into Language, Literacy, and Reading	3
ECED 2110	Professionalism	2

ECED 1120	Guiding Young Children	3
Electives, to bring the total credits to 60 [3]		**1-3**
Total Hours		**60-61**

[1]

Course is a Core Curriculum Requirement and must be completed regardless of transfer credit awarded.

[2]

No less than a "C-" is required in these courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
CEPY 1120G	Human Growth and Behavior	3
ECED 1110	Child Growth, Development, and Learning	3
ECED 1115	Health, Safety, and Nutrition	2
ECED 1120	Guiding Young Children	3
Area I: Communications Level 1		4-3
ENGL 1110G	Composition I	
	Hours	**15-14**
Spring		
ECED 1130	Family and Community Collaboration	3
ECED 2110	Professionalism	2
ECED 2115	Introduction into Language, Literacy, and Reading	3
Choose one from the following:		3
HIST 1110G or HIST 1120G	United States History I or United States History II	
HIST 1130G	World History I	
HIST 1140G	World History II	
Choose one from the following:		3
ARTH 1115G	Orientation in Art	
MUSC 1130G	Music Appreciation: Western Music	
THEA 1110G	Introduction to Theatre	
Elective Course		1-3
	Hours	**15-17**
Second Year		
Fall		
ECED 2120	Curriculum Development through Play Birth through Age 4 (PreK)	3
ECED 2121	Curriculum Development through Play Birth through Age 4 (PreK) Practicum	2
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
Area III: Laboratory Sciences (choose two from two different areas. Must include lab) [1]		8
	Hours	**16**
Spring		
Area IV: Social/Behavioral Sciences [2]		3
ENGL 2210G or ENGL 2221G	Professional & Technical Communication or Writing in the Humanities and Social Science	3

ECED 2130	Curriculum Development and Implementation Age 3 (PreK) through Grade 3	3
ECED 2131	Curriculum Dvlpmnt & Implementation Age 3 (PreK) through Grade 3 Practicum	2
MATH 2134G or MATH 1220G	Fundamentals of Elementary Math II [3] or College Algebra	3
	Hours	**14**
	Total Hours	**60-61**

[1]

Area III: Science see degree requirements for list of courses.

[2]

Area IV: Social/Behavioral Science see degree requirements for list of courses.

Early Childhood Education - Certificate

Students must maintain a cumulative 2.5 GPA to graduate with no less than a "C-" in any of the ECED courses.

Code	Title	Hours
Core Curriculum Requirements		
ENGL 1110G	Composition I [1]	4
ECED 1110	Child Growth, Development, and Learning	3
ECED 1115	Health, Safety, and Nutrition	2
ECED 1130	Family and Community Collaboration	3
ECED 2120	Curriculum Development through Play Birth through Age 4 (PreK)	3
ECED 2121	Curriculum Development through Play Birth through Age 4 (PreK) Practicum	2
ECED 2130	Curriculum Development and Implementation Age 3 (PreK) through Grade 3	3
ECED 2131	Curriculum Dvlpmnt & Implementation Age 3 (PreK) through Grade 3 Practicum	2
ECED 2115	Introduction into Language, Literacy, and Reading	3
ECED 2110	Professionalism	2
ECED 1125	Assessment of Children and Evaluation of Programs	3
ECED 1120	Guiding Young Children	3
Total Hours		**33**

[1]

Students must complete ENGL 1110G Composition I with a "C-" or better.

[2]

No less than a "C-" is required in all ECED courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I	4
ECED 1110	Child Growth, Development, and Learning	3

ECED 1115	Health, Safety, and Nutrition	2
ECED 1120	Guiding Young Children	3
ECED 2110	Professionalism	2
	Hours	**14**
Spring		
ECED 1130	Family and Community Collaboration	3
ECED 2120	Curriculum Development through Play Birth through Age 4 (PreK)	3
ECED 2121	Curriculum Development through Play Birth through Age 4 (PreK) Practicum	2
ECED 2130	Curriculum Development and Implementation Age 3 (PreK) through Grade 3	3
	Hours	**11**
Summer		
ECED 1125	Assessment of Children and Evaluation of Programs	3
ECED 2115	Introduction into Language, Literacy, and Reading	3
ECED 2131	Curriculum Dvlpmnt & Implementation Age 3 (PreK) through Grade 3 Practicum	2
	Hours	**8**
	Total Hours	**33**

It is highly recommended that students follow the roadmap because of required prerequisites and corequisites on some courses.

Education

The **Associate Degree in Education** prepares students for work as a teacher's aide, substitute teacher or other paraprofessional in elementary or secondary schools.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements.

- Education - Associate in Education (p. 114)

EDUC 1110 Freshman Orientation 1 Credit (1)
Introduction to the College. Discussion of planning for individualized education program and field experience. Repeatable: up to 1 credit.
Learning Outcomes
1. Demonstrates knowledge of and uses theories, approaches, methods, and techniques for teaching, reading, writing, and other academic skills in English and the native language.
2. Demonstrates knowledge of and applies management techniques appropriate to classrooms containing students who have varying levels of proficiency and academic experience in both languages. Community/Family Involvement The bilingual teacher.
3. Recognizes the importance of parental and community involvement for facilitating the learner's successful integration to his/her school environment.
4. Demonstrates knowledge of the teaching and learning patterns of the students' home environment and incorporates these into the instructional areas of program. Assessment The bilingual teacher.
5. Assesses oral and written language proficiency in academic areas in both languages utilizing the results for instructional placement, prescription, and evaluation.
6. Evaluates the growth of the learner's native and second language in the context of the curriculum.
7. Continuously assesses and adjusts her or his own language use in the classroom in order to maximize learner comprehension and verbal participation.

View Course Outcomes

EDUC 1120 Introduction to Education 2 Credits (2)
Introduction to the historical, philosophical, sociological foundations of education, current trends, and issues in education; especially as it relates to a multicultural environment. Students will use those foundations to develop effective strategies related to problems, issues and responsibilities in the field of education. Repeatable: up to 2 credits.
Learning Outcomes
1. Describe the teaching and learning of various American education settings including early childhood, elementary, middle school, high school, and special education.
2. Describe how teachers use educational theory and the results of research of students' learning.
3. Explain the techniques for establishing a positive and supportive environment in the classroom.
4. Identify and describe instructional strategies supported by current research to promote thinking skills of all learners.
5. Recognize the teachers' role and responsibilities in an increasingly diverse, multicultural society.

View Course Outcomes

EDUC 1140 Math for Paraprofessionals 3 Credits (3)
Applied math skills for paraprofessionals working with children. Repeatable: up to 3 credits.
Prerequisite(s): CCDM 103 N
Learning Outcomes
1. Students will plan developmentally appropriate math activities for young children.
2. Students will plan adaptations to math activities for children with diverse abilities.
3. Students will demonstrate understanding of recent research in methods of teaching mathematics.
4. Students will demonstrate understanding of early childhood theories as they relate to the teaching of mathematics.
5. Students will demonstrate understanding of unique needs of children from diverse economic or cultural backgrounds.

View Course Outcomes

EDUC 1150 Math for Paraprofessionals II 3 Credits (3)
Applied math skills for paraprofessionals working under the direction of a teacher. Repeatable: up to 3 credits.
Prerequisite(s): EDUC 1140
Learning Outcomes
1. Students will plan developmentally appropriate math activities for young children.
2. Students will plan adaptations to math activities for children with diverse abilities.
3. Students will demonstrate understanding of recent research in methods of teaching mathematics.
4. Students will demonstrate understanding of early childhood theories as they relate to the teaching of mathematics.
5. Students will demonstrate understanding of unique needs of children from diverse economic or cultural backgrounds.

View Course Outcomes

EDUC 1185 Introduction to Secondary Education and Youth 3 Credits (3)
Introductory course for students considering a career in secondary education. Includes historical, philosophical, and sociological foundations, program organization, critical dispositions, and understanding the context of schools and youth. Practicum required. Restricted to: Secondary Ed majors. Traditional Grading with RR.
Learning Outcomes
1. Articulate the attributes of an education professional entering the field.
2. Differentiate and summarize the major educational philosophies and historical events that have influenced the progression of educational practice.
3. Describe the role of law in education with emphasis on the rights and responsibilities of teachers and learners.
4. Develop a preliminary personal philosophy of teaching and learning.
5. Discuss the characteristics and roles of the teacher, the student, and the school in today's education.
6. Identify effective teaching methods, instructional strategies and learning styles.
7. Evaluate the Lesson Planning Process using various lesson planning templates, formats, and rubrics.
8. Explain classroom management techniques.
9. Identify different types of diversity in the classroom environment. 1
10. Describe how learning differences are manifested in schools. 1
11. Describe how teachers use multiple methods of assessment to engage learners in their own growth, to monitor learner progress 1
12. Describe how teachers use multiple methods of assessment to modify instruction and inform decision making. 1
13. Identify the role of Standards and High Stakes Testing in the life of an educational professional 1
14. Complete 24 hours internship in a classroom, preferably a bilingual classroom. 1
15. Document and reflect on your observations throughout your internship. 1
16. Construct an individualized map to teacher licensure in the State of New Mexico.

View Course Outcomes

EDUC 1995 Cooperative Education in Education 1 Credit (1)
Introduction to public school teaching, school visits, classroom observations and discussion seminar.
Repeatable: up to 1 credit
View Course Outcomes

EDUC 1996 Topics in Education 1-3 Credits
Supervised study in a specific area of interest. Each course shall be designated by a qualifying subtitle. Repeatable: up to 9 credits.
View Course Outcomes

EDUC 1998 Internship in Education 3 Credits (3)
Supervised experience in elementary education settings.
Repeatable: up to 3 credits
Learning Outcomes
1. Demonstrate an understanding of personal attitudes and motivations for entering the field of education.
2. Identify effective teaching strategies that enhance Student Learning Outcomes.
3. Identify classroom management techniques and learning styles.
4. Develop observational skills and reflective thinking skills.
5. Evaluate instructional methods that enhance upper level thinking skills in children.

View Course Outcomes

EDUC 2710 Pre-Teacher Preparation 3 Credits (3)
Assists students in developing the necessary competencies needed for acceptance to the Teacher Education Program. Course content includes basic skill development, test taking skills, and completion of teacher preparation packet. Repeatable: up to 6 credits.
Learning Outcomes
1. Investigate the process and requirements of the Teacher Education Program
2. Read critically about teacher's experiences and write brief reactions
3. Discuss philosophies of education and draft a written personal philosophy of education
4. Discuss the nature of education for students with diverse languages, cultures and abilities
5. Draft personal position statements concerning education for students with disabilities and diverse cultures

View Course Outcomes

EDUC 2998 Field Experience in Education 3 Credits (3)
Supervised experience in junior high settings. Repeatable: up to 3 credits.
Prerequisite(s): must be a co-op student
View Course Outcomes

Education - Associate in Education

Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	
English Composition - Level 2		3
ENGL 2210G	Professional & Technical Communication	
or ENGL 222	Writing in the Humanities and Social Science	
Oral Communication		3
COMM 1130G	Public Speaking	
or COMM 11	Introduction to Communication	
Area II: Mathematics		3
MATH 1220G	College Algebra (Core Curriculum Requirement) [1]	
Area III: Laboratory Science		8
Choose two from two different subjects:		
ASTR 1115G	Introduction to Astronomy (Lec+Laboratory)	
ASTR 1120G	The Planets	
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory	
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Laboratory	
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM majors	
ENVS 1110G	Environmental Science I	
GEOL 1110G	Physical Geology	
PHYS 1115G	Survey of Physics with Laboratory	
PHYS 1230G	Algebra-Based Physics I	
Area IV: Social/Behavioral Sciences		3
Choose one from the following:		
ANTH 1140G	Introduction to Cultural Anthropology	
GEOG 1120G	World Regional Geography	
GEOG 1130G	Human Geography	
POLS 1110G	Introduction to Political Science	
POLS 1120G	American National Government	
PSYC 1110G	Introduction to Psychology	
SOCI 1110G	Introduction to Sociology	
Area V: Humanities		3
Choose one from the following:		
HIST 1110G	United States History I	
HIST 1120G	United States History II	
HIST 1130G	World History I	
HIST 1140G	World History II	
Area VI: Creative and Fine Arts		3
Choose one from the following:		
ARTH 1115G	Orientation in Art	
MUSC 1130G	Music Appreciation: Western Music	
THEA 1110G	Introduction to Theatre	
Area VII: Flexible 3 (General Education Elective)		3
CEPY 1120G	Human Growth and Behavior (Core Curriculum Requirement) [1]	
Core Curriculum Requirements		
BLED 1110	Introduction with Internship in Bilingual Education/ESL	3
BLED 2110	Introduction to Bilingual and ESL Education	3
CEPY 2110	Learning in the Classroom	3
EDLT 2110	Integrating Technology with Teaching	3
EDUC 2710	Pre-Teacher Preparation (Pre-Teacher Preparation I)	3

EDUC 2710	Pre-Teacher Preparation (Pre-Teacher Preparation II)	3
Choose one additional Mathematics class based on your teaching level interest:		3
MATH 1130G	Survey of Mathematics (Secondary Education Majors)	
MATH 2134G	Fundamentals of Elementary Math II (Elementary Education Majors)	
Electives, to bring the total credits to 60		**6-7**
One elective must be from the following:		
BCIS 1110	Fundamentals of Information Literacy and Systems	
ECED 2215	Program Management	
ECED 2140	Effective Program Development for Diverse Learners and their Families	
SPAN 1110	Spanish I [4]	
SPAN 2120	Spanish IV	
Total Hours		**60**

[1]

Course Core Curriculum requirement and must completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I	4
CEPY 1120G	Human Growth and Behavior	3
BLED 1110	Introduction with Internship in Bilingual Education/ESL	3
Choose one class based on your major:		3
MATH 1220G	College Algebra (Secondary Education Majors)	
MATH 2134G	Fundamentals of Elementary Math II (Elementary Education Majors)	
Area IV: Social/Behavioral Sciences Course [1]		3
	Hours	**16**
Spring		
Choose one additional Mathematics class based on your major:		3
MATH 1220G	College Algebra (Elementary Education Majors)	
MATH 1130G	Survey of Mathematics (Secondary Education Majors)	
BLED 2110	Introduction to Bilingual and ESL Education	3
Two Area III: Laboratory Science Courses [2]		8
	Hours	**14**
Second Year		
Fall		
CEPY 2110	Learning in the Classroom	3
EDUC 2710	Pre-Teacher Preparation (Pre-Teacher Preparation I)	3
Choose one from the following:		3
ENGL 2210G	Professional & Technical Communication	
ENGL 2221G	Writing in the Humanities and Social Science	

Elective Course [3]		3
Area V: Humanities Course [4]		3
	Hours	**15**
Spring		
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
EDLT 2110	Integrating Technology with Teaching	3
EDUC 2710	Pre-Teacher Preparation (Pre-Teacher Preparation II)	3
Area VI: Creative and Fine Arts Course [5]		3
Elective Course		
Choose one from the following:		3-4
BCIS 1110	Fundamentals of Information Literacy and Systems	
ECED 2215	Program Management	
ECED 2140	Effective Program Development for Diverse Learners and their Families	
SPAN 1110	Spanish I	
SPAN 2120	Spanish IV	
	Hours	**15-16**
	Total Hours	**60-61**

[1]

Area IV: Social/Behavioral Sciences Courses:
- ANTH 1140G Introduction to Cultural Anthropology
- GEOG 1120G World Regional Geography
- GEOG 1130G Human Geography
- POLS 1120G American National Government
- POLS 1110G Introduction to Political Science
- PSYC 1110G Introduction to Psychology
- SOCI 1110G Introduction to Sociology

[2]

Area III: Laboratory Science Courses:
- ASTR 1115G Introduction to Astronomy (Lec+Laboratory)
- ASTR 1120G The Planets
- BIOL 1120G Human Biology/BIOL 1120L Human Biology Laboratory
- CHEM 1120G Introduction to Chemistry Lecture and Laboratory (non majors)
- CHEM 1215G General Chemistry I Lecture and Laboratory for STEM majors
- ENVS 1110G Environmental Science I
- GEOL 1110G Physical Geology
- Approved GEOL course
- PHYS 1115G Survey of Physics with Laboratory
- PHYS 1230G Algebra-Based Physics I/PHYS 1230L Algebra-based Physics I Laboratory

[3]

Elective credit may vary based on prerequisites, dual credit, AP credit, and/or certificate coursework. The amount indicated in the requirements list is the amount needed to bring the total to 60 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

4

Area V: Humanities Courses:
- HIST 1130G World History I
- HIST 1140G World History II
- HIST 1110G United States History I
- HIST 1120G United States History II

5

Area VI: Creative and Fine Arts Courses:
- ARTH 1115G Orientation in Art
- MUSC 1130G Music Appreciation: Western Music
- THEA 1110G Introduction to Theatre

Emergency Medical Technician

The **Emergency Medical Technician** program prepares students for employment as Emergency Medical Technicians (EMT) in fire departments, private ambulance services, and hospital-based systems. The curriculum focuses on the study of anatomy and physiology, the pathophysiology of diseases, traumatic injuries, pharmacology, and cardiac care. Students will develop their knowledge and skill through both laboratory and clinical field experiences.

Graduation Requirements

Certificate in Emergency Medical Technician – Basic, Intermediate, and Paramedic: A cumulative GPA of 2.0 or higher. The minimum number of credits required to be completed at SENMC for each certificate is listed below:

EMT Basic minimum of 6 hours required

EMT Intermediate minimum of 7 hours required

EMT Paramedic minimum of 15 hours required

AAS in Emergency Medical Technician Paramedic: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

Required Skills and Abilities

All EMS programs require that the student be able to:

- lift, carry and balance up to 120 pounds (250 pounds with assistance)
- carry out emergency and non-emergency patient care, including, light extrication (i.e., be able to assume a variety of postural positions and be capable of physical maneuvers ranging from crawling, kneeling, squatting, twisting, turning, and bending, to climbing stairs and ladders)
- withstand varied environmental conditions such as extreme heat, cold, and moisture

Program Entrance Requirements

- EMT Basic:
  - Immunizations below are required before starting clinicals
    - MMR twice since 1980 or Rubella and Rubeola titers;
    - TB screening with expiration past end of semester;

- Varicella immunity (titer or proof of vaccination accepted)
- TDAP within 10 years
- Hepatitis B series or titers or declination waiver
- Flu shot if in season (October-March)
- COVID vaccination
- EMT Intermediate
  - Copy of current health care provider CPR card
  - Successful completion of EMT Basic coursework
  - Immunizations below are required before starting clinicals
    - MMR twice since 1980 or Rubella and Rubeola titers;
    - TB screening with expiration past end of semester;
    - Varicella immunity (titer or proof of vaccination accepted)
    - TDAP within 10 years
    - Hepatitis B series or titers or declination waiver
    - Flu shot if in season (October-March)
    - COVID vaccination
  - EMT-Basic license in hand by the end of the sixth week of EMT-Intermediate classes
- EMT Paramedic
  - EMT Basic or EMT Intermediate license
  - Written, oral, and practical assessment at the EMT Basic or EMT Intermediate level depending on current licensure
  - HOBET exam
  - Copy of current health care provider CPR card
  - Completed departmental application including resume, letter of intent, and recommendation letters
  - Immunizations below are required before starting clinicals
    - MMR twice since 1980 or Rubella and Rubeola titers;
      - TB screening with expiration past end of semester;
      - Varicella immunity (titer or proof of vaccination accepted)
      - TDAP within 10 years
      - Hepatitis B series or titers or declination waiver
      - Flu shot if in season (October-March)
      - COVID vaccination

- Emergency Medical Technician Basic - Certificate of Completion (p. 118)
- Emergency Medical Technician Intermediate - Certificate (p. 119)
- Emergency Medical Technician Paramedic - Certificate of Completion (p. 121)
- Emergency Medical Services - Associate of Applied Science (p. 119)

OEEM 101 CPR for the Health Care Professional 1 Credit (1)
Students learn identification and response to airway and circulation emergencies, including use of a SAED and accessing the EMS system. This course is taught using the American Heart Association guidelines for course completion. Required: grade of C or better
View Course Outcomes

OEEM 103 Heartsaver First Aid/CPR 1 Credit (1)
Students learn how to identify and respond to airway, circulation and basic first aid emergencies, to include using a SAED and accessing the EMS system. This course is intended for students who are not Allied Health Majors and utilizes the American Heart Association guidelines for course completion.
View Course Outcomes

OEEM 115 First Responder Prehospital Professional 3 Credits (3)
Provides training in prehospital medical and traumatic emergencies. Consent of instructor required. Requires a C or better to pass. Restricted to majors. (2+3P)
Corequisite(s): OEEM 101
View Course Outcomes

OEEM 120 Emergency Medical Technician Basic 6 Credits (6)
EMT-Basic skills to include care of soft tissue and muscular/skeletal injuries, circulatory, nervous, general medical and respiratory emergencies. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEEM majors.
Corequisite(s): OEEM 101, OEEM 120L, OEEM 121
Prerequisite(s)/Corequisite(s): OEEM 153
Repeatable: up to 6 credits
View Course Outcomes

OEEM 120 L Emergency Medical Technician Basic Lab 2 Credits (2)
EMT-Basic skills development with emphasis on assessment, skills competency and team-work in patient care in the prehospital setting. (6P). Restricted to: OEEM majors.
Corequisite(s): OEEM 101, OEEM 120, OEEM 121
Prerequisite(s)/Corequisite(s): OEEM 153
View Course Outcomes

OEEM 121 Emergency Medical Technician Basic Field/Clinical 1 Credit (1)
Covers the patient care experience provided through assigned shifts in the hospital and/or ambulance setting. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEEM majors.
Prerequisite(s)/Corequisite(s): OEEM 101, OEEM 120, OEEM 120L OEEM 153
View Course Outcomes

OEEM 150 Emergency Medical Technician Intermediate 5 Credits (5)
Theory of the roles, responsibilities and scope of practice of the EMT-Intermediate. Assessment and management of respiratory, cardiac, trauma, environmental, behavior, reproduction, and childhood emergencies. Consent of Instructor required. Restricted to: OEEM majors.
Prerequisite(s): Current EMT-basic license, pretest and consent of instructor
Repeatable: up to 5 credits
View Course Outcomes

OEEM 150 L Emergency Medical Technician Intermediate Lab 2 Credits (2)
EMT-Intermediate skills development with an emphasis on assessment, skills competency, and team work in patient care in the prehospital setting. Requires a C or better to pass. Restricted to: OEEM majors. (6P)
Prerequisite(s)/Corequisite(s): OEEM 150, OEEM 151
View Course Outcomes

OEEM 151 Emergency Medical Technician Intermediate Field/Clinical 2 Credits (2)
Patient care experience provided through assigned shifts in the hospital and/or ambulance setting. Restricted to: OEEM majors. (6P)
Prerequisite(s)/Corequisite(s): OEEM 150, OEEM 150 L
View Course Outcomes

OEEM 153 Introduction to Anatomy and Physiology for the EMS Provider 3 Credits (3)
To properly assess and manage a patient, a prehospital provider must have a solid foundation in human anatomy and physiology. This course provides a systematic approach to building this foundation. Grade of C or better is required to pass the course. Consent of Instructor required.
View Course Outcomes

OEEM 155 Special Topics 1 Credit (1)
Specific topics to be listed in Schedule of Classes.
Repeatable: for a maximum of 10 credits
View Course Outcomes

OEEM 177 Emergency Medical Services Instructor 4 Credits (4)
Theory of student learning, methodology, instructional components, evaluation, and course coordination for the EMS profession. Consent of Instructor required.
Prerequisite(s): Minimum of an EMT-Basic License required
Repeatable: up to 4 credits
View Course Outcomes

OEEM 201 Human Pathophysiology 3 Credits (3)
Overview of anatomy and physiology. Emphasis on human body pathophysiology including a medical illness component. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEMS, OEEM majors. (2+3P)
Prerequisite(s): OEEM 120, OEEM 120 L
View Course Outcomes

OEEM 202 EMT-Paramedic Respiratory Emergencies 3 Credits (3)
Review anatomy, physiology and pathophysiology of the respiratory system. Assessment and management of respiratory emergencies and acute respiratory failure in the prehospital setting. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEMS, OEEM majors. (2+3P)
Prerequisite(s): OEEM 212
View Course Outcomes

OEEM 203 EMT-Paramedic Trauma Emergencies 3 Credits (3)
Study of the effects of trauma on the human body. Assessment and management of trauma patients and scenes, including vehicular extrication. Consent of Instructor required. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 216
View Course Outcomes

OEEM 206 Introduction to Advanced Prehospital Care 3 Credits (3)
Overview of prehospital care including roles and responsibilities of EMT-P, EMS systems, medical, legal, ethical issues, stress management, medical terminology, medical report writing and communication. Includes ride-along with ambulance and dispatch observation. Requires a C or better to pass. Consent of instructor required. Restricted to OEEM majors. (2+3P)
Prerequisite(s): OEEM 120
View Course Outcomes

OEEM 207 Introduction to Pharmacology 3 Credits (3)
Drug actions, factors modifying drugs and dosages: characteristics of drug effects, and drug history and dosages. Prehospital protocol, transport, and common patient prescription medications. Requires a C or better to pass. Restricted to OEEM majors. (2+3P)
Prerequisite(s): OEEM 120
View Course Outcomes

OEEM 210 Cardiac Rhythm Interpretation 3 Credits (3)
Cardiac conduction system: electrophysiology, electrocardiogram, monitor, atrial, sinus, ventricular and junctional dysrhythmias, multiple lead EKG and 12 lead EKG interpretation. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 201, OEEM 206, OEEM 207
View Course Outcomes

OEEM 212 EMT-Paramedic Cardiovascular Emergencies 3 Credits (3)
Review anatomy, physiology, and pathophysiology of cardiovascular system. Assessment and management of cardiovascular emergencies in the prehospital setting. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 210
Repeatable: up to 3 credits
View Course Outcomes

OEEM 213 EMT-Paramedic: Medical Emergencies I 3 Credits (3)
Study of the disease process; assessment and management of neurological, endocrine, gastrointestinal, renal emergencies and infectious disease. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 212
Repeatable: up to 3 credits
View Course Outcomes

OEEM 214 EMT-Paramedic: Medical Environmental Emergencies II 3 Credits (3)
Study of disease process, assessment, and management of poisoning, drug and alcohol abuse, environmental, behavioral and geriatric emergencies. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 213
Repeatable: up to 3 credits
View Course Outcomes

OEEM 216 EMT-Paramedic: Reproductive and Childhood Emergencies 3 Credits (3)
Covers anatomy, physiology, disease processes, assessment and management of male and female reproductive system emergencies, childhood emergencies and growth and development. Restricted to majors. Requires a C or better to pass. (2+3P)
Prerequisite(s): OEEM 214 and consent of instructor
View Course Outcomes

OEEM 218 Pediatric Advance Life Support for the Healthcare Profession 1 Credit (1)
Identify and respond to life threatening pediatric emergencies. Taught using the American Heart Association guidelines for course completion. Graded S/U.
Prerequisite(s): OEEM 101
View Course Outcomes

OEEM 219 Advance Cardiac Life Support for the Healthcare Provider 1 Credit (1)
Identify and respond to life threatening cardiac emergencies. Taught using the American Heart Association guidelines for course completion. Graded S/U.
Prerequisite(s): OEEM 101
View Course Outcomes

OEEM 230 EMT-Paramedic Clinical Experience I 3 Credits (3)
Assigned clinical experiences in patient assessment and specific management techniques. Successful completion includes minimum required hours and completion of course objectives. Restricted to majors. Requires a C or better to pass. (9P)
View Course Outcomes

OEEM 231 EMT-Paramedic Clinical Experience II 3 Credits (3)
Assigned clinical experiences in patient assessment and specific management techniques. Successful completion includes minimum required hours and completion of course objectives. Requires a C or better to pass. Restricted to: OEEM majors. (9P)
Prerequisite(s)/Corequisite(s): OEEM 230
View Course Outcomes

OEEM 240 EMT-Paramedic Field Experience I 3 Credits (3)
Advanced prehospital skills and knowledge. Successful completion of at least the minimum required hours and course objectives. Restricted to majors. Requires a C or better to pass. (9P)
View Course Outcomes

OEEM 241 EMT-Paramedic Field Experience II 3 Credits (3)
Continued focus on advanced prehospital skills and knowledge, with increasing responsibility for patient care. Successful completion includes meeting at least the minimum required hours and course objectives. Requires a C- or better to pass.
Prerequisite(s)/Corequisite(s): OEEM 240
View Course Outcomes

OEEM 242 EMT-Paramedic Field Internship 3 Credits (3)
Emphasis on total patient care responsibility and team leadership skills. Successful completion includes meeting the minimum hours required and course objectives. Restricted to: OEEM majors. (9P)
Prerequisite(s): OEEM 231, OEEM 241
View Course Outcomes

OEEM 243 EMT-Paramedic Preparation for Practice 2 Credits (2)
Comprehensive final program testing to prepare for licensing examination. Requires a C or better to pass. Restricted to: OEEM majors.
Prerequisite(s): OEEM 242
View Course Outcomes

Emergency Medical Technician Basic - Certificate of Completion

Code	Title	Hours
Technical Requirements		
ENGL 1110G	Composition I	4
COMM 1130G	Public Speaking	3
or COMM 1115G	Introduction to Communication	
OEEM 101	CPR for the Health Care Professional [2]	1
OEEM 120	Emergency Medical Technician Basic [3]	6
OEEM 120 L	Emergency Medical Technician Basic Lab [3]	2
OEEM 121	Emergency Medical Technician Basic Field/Clinical [3]	1
OEEM 153	Introduction to Anatomy and Physiology for the EMS Provider	3
Total Hours		**20**

[1]

Courses must be taken concurrently.

2

Copy of current health care provider CPR card

3

OEEM 120 Emergency Medical Technician Basic, OEEM 120 L Emergency Medical Technician Basic Lab and OEEM 121 Emergency Medical Technician Basic Field/Clinical must be completed with a C- or higher.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I	4
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
OEEM 153	Introduction to Anatomy and Physiology for the EMS Provider	3
	Hours	**10**
Spring		
OEEM 101	CPR for the Health Care Professional	1
OEEM 120	Emergency Medical Technician Basic	6
OEEM 120 L	Emergency Medical Technician Basic Lab	2
OEEM 121	Emergency Medical Technician Basic Field/Clinical	1
	Hours	**10**
	Total Hours	**20**

Emergency Medical Technician Intermediate - Certificate

All courses must be completed with a C or higher.

Code	Title	Hours
Technical Requirements		
ENGL 1110G	Composition I	4
BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4
BIOL 2225	Human Anatomy and Physiology II	4
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
MATH 1130G	Survey of Mathematics	3
OEEM 101	CPR for the Health Care Professional [2]	1
OEEM 150	Emergency Medical Technician Intermediate	5
OEEM 150 L	Emergency Medical Technician Intermediate Lab	2
OEEM 151	Emergency Medical Technician Intermediate Field/Clinical	2
Total Hours		**28**

1

Students must enroll in these courses concurrently and score at least 80% on all departmental exams.

2

 Or Copy of current health care provider CPR card

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I	4
BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4
MATH 1130G	Survey of Mathematics	3
	Hours	**11**
Spring		
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
BIOL 2225	Human Anatomy and Physiology II	4
	Hours	**7**
Second Year		
Fall		
OEEM 150	Emergency Medical Technician Intermediate	5
OEEM 150 L	Emergency Medical Technician Intermediate Lab	2
OEEM 151	Emergency Medical Technician Intermediate Field/Clinical	2
	Hours	**9**
	Total Hours	**27**

Emergency Medical Services - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 87-91 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

All courses must be completed with a C or higher.

Code	Title	Hours
General Education		
Course required from Area I, III, IV, and VII and choose one course from Area II, V, or VI. [1,2]		16
Area I: Communications		
ENGL 1110G	Composition I (Required)	
Area II: Mathematics		
MATH 1130G	Survey of Mathematics (Recommended)	
Area III: Laboratory Science		
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors) (Recommended)	
Choose one course from the Areas below:		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		

Area VII: Flexible 3 (General Education Elective)

Technical Requirements		
COMM 1130G	Public Speaking	3
or COMM 1115G	Introduction to Communication	
FIRE 115	Hazardous Materials Awareness and Operations	3
FIRE 130	Principles of Fire and Emergency Services Safety and Survival	3
FIRE 252	Vehicle Extrication	2
OATS/NURS 150	Medical Terminology	3
OEEM 101	CPR for the Health Care Professional	1
OEEM 120	Emergency Medical Technician Basic	6
OEEM 120 L	Emergency Medical Technician Basic Lab	2
OEEM 121	Emergency Medical Technician Basic Field/Clinical	1
OEEM 150	Emergency Medical Technician Intermediate	5
OEEM 150 L	Emergency Medical Technician Intermediate Lab	2
OEEM 151	Emergency Medical Technician Intermediate Field/Clinical	2
OEEM 153	Introduction to Anatomy and Physiology for the EMS Provider	3
OEEM 155	Special Topics	1
OEEM 177	Emergency Medical Services Instructor	4
OEEM 207	Introduction to Pharmacology	3
Total Hours		**60**

[1]

Each course selected must be from a different area and students cannot take multiple courses in the same area.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

Complete as needed according to program director.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
OATS 150	Medical Terminology	3
or NURS 150	or Medical Terminology	
BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4
GEN Ed Course – One course from Areas I-VI [1,2]		3
	Hours	**10**
Spring		
GEN Ed Course – One course from Areas I-VI [1,2]		3
MATH 1215	Intermediate Algebra	3
BIOL 2225	Human Anatomy and Physiology II	4
GEN Ed Course – One course from Areas I-VI [1,2]		3-4
	Hours	**13-14**
Second Year		
Fall		
OEEM 206	Introduction to Advanced Prehospital Care	3
OEEM 150	Emergency Medical Technician Intermediate	5
OEEM 150 L	Emergency Medical Technician Intermediate Lab	2
OEEM 151	Emergency Medical Technician Intermediate Field/Clinical	2
	Hours	**12**
Spring		
OEEM 201	Human Pathophysiology	3
OEEM 202	EMT-Paramedic Respiratory Emergencies	3
GEN Ed Course – One course from Areas I-VI [1,2]		3-4
OEEM 207	Introduction to Pharmacology	3
	Hours	**12-13**
Third Year		
Fall		
OEEM 203	EMT-Paramedic Trauma Emergencies	3
OEEM 210	Cardiac Rhythm Interpretation	3
OEEM 216	EMT-Paramedic: Reproductive and Childhood Emergencies	3
	Hours	**9**
Spring		
Approved OEEM Elective		1-3
Approved OEEM Elective		1-3
OEEM 230	EMT-Paramedic Clinical Experience I	3
OEEM 240	EMT-Paramedic Field Experience I	3
	Hours	**8-12**
Fourth Year		
Fall		
OEEM 212	EMT-Paramedic Cardiovascular Emergencies	3
OEEM 231	EMT-Paramedic Clinical Experience II	3
Approved OEEM Elective		3
	Hours	**9**
Spring		
OEEM 213	EMT-Paramedic: Medical Emergencies I	3
OEEM 242	EMT-Paramedic Field Internship	3
General Education Elective Course [2]		3-4
	Hours	**9-10**
Fifth Year		
Fall		
OEEM 214	EMT-Paramedic: Medical Environmental Emergencies II	3
OEEM 243	EMT-Paramedic Preparation for Practice	2
	Hours	**5**
	Total Hours	**87-94**

[1]

Each course selected must be from a different area and students cannot take multiple courses in the same area.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

Complete as needed according to program director.

Emergency Medical Technician Paramedic - Certificate of Completion

All courses must be completed with a C or higher.

Code	Title	Hours
Technical Requirements		
OEEM 150	Emergency Medical Technician Intermediate	5
OEEM 150 L	Emergency Medical Technician Intermediate Lab	2
OEEM 151	Emergency Medical Technician Intermediate Field/Clinical [1]	2
Approved OEEM Elective		1-3
Approved OEEM Elective		1-3
OEEM 201	Human Pathophysiology	3
OEEM 202	EMT-Paramedic Respiratory Emergencies	3
OEEM 203	EMT-Paramedic Trauma Emergencies	3
OEEM 206	Introduction to Advanced Prehospital Care	3
OEEM 207	Introduction to Pharmacology	3
OEEM 210	Cardiac Rhythm Interpretation	3
OEEM 212	EMT-Paramedic Cardiovascular Emergencies	3
OEEM 213	EMT-Paramedic: Medical Emergencies I	3
OEEM 214	EMT-Paramedic: Medical Environmental Emergencies II	3
OEEM 216	EMT-Paramedic: Reproductive and Childhood Emergencies	3
OEEM 230	EMT-Paramedic Clinical Experience I	3
OEEM 231	EMT-Paramedic Clinical Experience II	3
OEEM 240	EMT-Paramedic Field Experience I	3
OEEM 242	EMT-Paramedic Field Internship	3
OEEM 243	EMT-Paramedic Preparation for Practice	2
Approved OEEM Elective		3
Total Hours		**58-62**

[1]

Complete as needed according to program director.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
OEEM 150	Emergency Medical Technician Intermediate	5
OEEM 150 L	Emergency Medical Technician Intermediate Lab	2
OEEM 151	Emergency Medical Technician Intermediate Field/Clinical [1]	2
	Hours	**9**
Spring		
OEEM 201	Human Pathophysiology	3
OEEM 202	EMT-Paramedic Respiratory Emergencies	3
OEEM 207	Introduction to Pharmacology	3
	Hours	**9**
Second Year		
Fall		
OEEM 203	EMT-Paramedic Trauma Emergencies	3
OEEM 210	Cardiac Rhythm Interpretation	3
OEEM 216	EMT-Paramedic: Reproductive and Childhood Emergencies	3
	Hours	**9**
Spring		
Approved OEEM Elective		1-3
Approved OEEM Elective		1-3
OEEM 230	EMT-Paramedic Clinical Experience I	3
OEEM 240	EMT-Paramedic Field Experience I	3
	Hours	**8-12**
Third Year		
Fall		
OEEM 212	EMT-Paramedic Cardiovascular Emergencies	3
OEEM 231	EMT-Paramedic Clinical Experience II	3
OEEM 206	Introduction to Advanced Prehospital Care	3
	Hours	**9**
Spring		
OEEM 213	EMT-Paramedic: Medical Emergencies I	3
Approved OEEM Elective		3
OEEM 242	EMT-Paramedic Field Internship	3
	Hours	**9**
Fourth Year		
Fall		
OEEM 214	EMT-Paramedic: Medical Environmental Emergencies II	3
OEEM 243	EMT-Paramedic Preparation for Practice	2
	Hours	**5**
	Total Hours	**58-62**

[1]

Complete as needed according to program director.

Engineering

The Associate of Science in Engineering degree prepares the graduate for an entry-level position in the engineering industry. Students may apply the associates degree coursework to a Bachelor of Science Degree in Engineering in one of several fields including Chemical Engineering, Civil Engineering, Electrical & Computer Engineering, Engineering Physics, Engineering Technology & Surveying Engineering, Industrial Engineering, or Mechanical & Aerospace Engineering offered at one of the New Mexico four-year institutions.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 61 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements. Total credits required for degree 61.

- Engineering - Associate of Science (p. 122)

ENGR 100 G Introduction to Engineering 3 Credits (3)
An introduction to the various engineering disciplines, the engineering approach to problem solving, and the design process. Projects emphasize the importance of teamwork, written & oral communication skills, as well as ethical responsibilities. (2+3P)
Prerequisite(s)/Corequisite(s): MATH 1220G or above
Repeatable: up to 3 credits
View Course Outcomes

ENGR 110 Introduction to Engineering Design 3 Credits (3)
Sketching and orthographic projection. Covers detail and assembly working drawings, dimensioning, tolerance specification, and design project. (2+3)
View Course Outcomes

ENGR 111 Mathematics for Engineering Applications 3 Credits (3)
An introduction to engineering mathematics and basic programming skills needed to perform elementary data manipulation and analysis.
Prerequisite(s): MATH 1220G
Prerequisite(s)/Corequisite(s): MATH 1250G
View Course Outcomes

ENGR 120 DC Circuit Analysis 4 Credits (4)
This course provides an introduction DC circuit analysis using Ohm's law, Kirchoff laws, Thevenin's and Norton's theorems. (3+3P)
Corequisite(s): A grade of C- or better in MATH 1250G or higher
View Course Outcomes

ENGR 130 Digital Logic 4 Credits (4)
This course introduces logic design and the basic building blocks used in digital systems, as well as introducing applications of digital integrated circuits. Topics include Numbering systems (binary & hexadecimal), Boolean algebra and digital logic theory, simple logic circuits, combinational logic, and sequential logic, and applications such as ALU (Arithmetic Logic Units), multiplexers, encoders, counters, and registers. These basic logic units are the main parts of microprocessors. Includes hands-on labs and software designs. (3P)
Prerequisite(s): A grade of C- or better in MATH 1220G or higher
View Course Outcomes

ENGR 140 Introduction to Programming and Embedded Systems 4 Credits (4)
An introduction to programming and to the field of embedded systems. Starting from the basic concepts of programming, this course uses microcontrollers, sensors, motors, and other peripheral devices to support the learning and application of the problem-solving process through embedded systems. This course focuses on reading, writing, debugging, testing, and documenting computer programs. (3+3P)
Prerequisite(s)/Corequisite(s): E T 182 or ENGR 130
View Course Outcomes

ENGR 190 Introduction to Engineering Mathematics 4 Credits (4)
Engineering applications involving involved Math topics most heavily used in first and second-year engineering courses. Topics include engineering applications of algebra, trigonometry, vectors, complex numbers, sinusoids and signals, systems of equations and matrices, derivatives, integrals and differential equations.
Prerequisite(s): A grade of C- or better in MATH 1250G or higher
View Course Outcomes

ENGR 198 Special Topics in Engineering 1-3 Credits
Directed individual study of topics in engineering. Written reports covering work required. Restricted to engineering majors. Graded S/U.
Repeatable: for a maximum of 6 credits
View Course Outcomes

ENGR 217 Manufacturing Processes 3 Credits (3)
An introduction to modern manufacturing processes and their application. Students will be introduced to manufacturing concepts such as traditional and non-traditional machining operations, tooling, material selection, thermal joining, geometric dimensioning & tolerancing, metrology, additive manufacturing, assembly and inspection, g-code, and automated manufacturing using CAM packages.
Prerequisite(s): A grade of C- or better in both, ENGR 1110 and (MATH 1220G or higher)
View Course Outcomes

ENGR 217L Manufacturing Processes Lab 1 Credit (1)
A hands-on application of the concepts introduced in ENGR 217. This lab will expose the students to hands-on exercises and manufacturing methods used in industry. (3P)
Corequisite(s): ENGR 217
View Course Outcomes

ENGR 230 AC Circuit Analysis 4 Credits (4)
This course provides an introduction to Circuit analysis techniques, RLC transients, phasors, filter response, and an introduction to discrete electronic devices. (3P)
Prerequisite(s): A grade of C- or better in both, ENGR 120 and (MATH 1440 or MATH 1521G)
View Course Outcomes

ENGR 233 Engineering Mechanics I 3 Credits (3)
Engineering mechanics using vector methods. Force systems, resultants, equilibrium, distributed forces, area moments, and friction.
Prerequisite(s): A grade of C- or better in ENGR 190 or MATH 1440 or MATH 1521G
Prerequisite(s)/Corequisite(s): PHYS 1310G or PHYS 1230G
View Course Outcomes

ENGR 234 Engineering Mechanics II 3 Credits (3)
Kinetics of particles, kinematics and kinetics rigid bodies, systems of particles, energy and momentum principles, and kinetics of rigid bodies in three dimensions.
Prerequisite(s): A grade of C- or better in M E 236 or C E 233 or ENGR 233
View Course Outcomes

Engineering - Associate of Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 61-65 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

All courses must be completed with a C- or higher.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	
English Composition - Level 2		3
ENGL 2210G	Professional & Technical Communication	
or ENGL 222	Writing in the Humanities and Social Science	
Oral Communication		3
COMM 1130G	Public Speaking	
or COMM 11	Introduction to Communication	

Area II: Mathematics		3
MATH 1220G	College Algebra (Core Curriculum Requirement) [1]	
Area III: Laboratory Science		8
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM majors (Core Curriculum Requirement) [1]	
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus - Based Physics I Laboratory (Core Curriculum Requirement) [1]	
Area IV: Social/Behavioral Sciences Course [2]		3
Area V: Humanities [2]		3
Area VI: Creative and Fine Arts [2]		3
Area VII: Flexible 3 (General Education Elective) [2]		3-4
Core Curriculum Requirements		
ENGR 100 G	Introduction to Engineering	3
ENGR 111	Mathematics for Engineering Applications	3
ENGR 120	DC Circuit Analysis	4
ENGR 140	Introduction to Programming and Embedded Systems	4
ENGR 230	AC Circuit Analysis	4
MATH 1511G	Calculus and Analytic Geometry I [1]	4
Engineering Degree Electives, choose courses from list below:		6-9
C E 151	Introduction to Civil Engineering	
C E 233	Mechanics-Statics	
ENGR 130	Digital Logic	
I E 151	Computational Methods in Industrial Engineering	
I E 217	Manufacturing Processes	
MATH 1521G	Calculus and Analytic Geometry II	
M E 159	Graphical Communication and Design	
M E 210	Electronics and System Engineering	
PHYS 1320G & PHYS 1320L	Calculus-Based Physics II and Calculus-Based Physics II Laboratory	
Total Hours		**61-64**

[1]

Course is Core Curriculum Requirement and must be completed regardless of transfer credits awarded.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

If Either MATH 1521G or PHYS 1320G/PHYS 1320L are selected as an elective, the course will also count for the General Education Elective requirement.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM majors	4
ENGR 100 G	Introduction to Engineering	3
ENGR 120	DC Circuit Analysis	4

Course	Title	Hours
ENGL 1110G	Composition I	4
	Hours	**15**
Spring		
MATH 1511G	Calculus and Analytic Geometry I [1]	4
ENGR 111	Mathematics for Engineering Applications	3
ENGR 230	AC Circuit Analysis	4
Area IV: Social/Behavioral Sciences Course [2]		3
	Hours	**14**
Second Year		
Fall		
ENGR 140	Introduction to Programming and Embedded Systems	4
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus - Based Physics I Laboratory	4
Choose one from the following:		3
ENGL 2210G or ENGL 2221G	Professional & Technical Communication or Writing in the Humanities and Social Science	
ENGR Elective [3]		3-4
Area VI: Creative and Fine Arts [2]		3
	Hours	**17-18**
Spring		
COMM 1115G or COMM 1130G	Introduction to Communication or Public Speaking	3
ENGR Elective [3]		3-4
ENGR Elective [3]		3-4
Area V: Humanities [2,4]		3
General Education Elective [2,4]		3-4
	Hours	**15-18**
	Total Hours	**61-65**

[1]

MATH 1511G Calculus and Analytic Geometry I is required for the degree but students may need to take any prerequisites needed to enter MATH 1511G first.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

Engineering Electives:
- MATH 1521G Calculus and Analytic Geometry II
- PHYS 1320G Calculus-Based Physics II/PHYS 1320L Calculus-Based Physics II Laboratory
- C E 151 Introduction to Civil Engineering
- C E 233 Mechanics-Statics
- I E 151 Computational Methods in Industrial Engineering
- I E 217 Manufacturing Processes
- M E 159 Graphical Communication and Design
- M E 210 Electronics and System Engineering

[4]

If either MATH 1521G Calculus and Analytic Geometry II or PHYS 1320G Calculus-Based Physics II/PHYS 1320L Calculus-Based Physics II Laboratory are selected as an elective, the course will also count for the General Education Elective requirement.

Geographical Information Systems

This certificate focuses on the systematic study of map-making and the application of mathematical, computer, and other techniques to the analysis of large amounts of geographic data and the science of mapping geographic information. Includes instruction in cartographic theory and map projections, computer-assisted cartography, geographic information systems, map design and layout, photogrammetry, air photointerpretation, remote sensing, spatial analysis, geodesy, cartographic editing, and applications to specific industrial, commercial, research, and governmental mapping problems.

Examples: Geographic Information Systems (GIS), Spatial Analysis,

Graduation Requirements

The certificates require a cumulative GPA of 2.0 or higher. A minimum of 6 credits earned toward the certificate must be completed at SENMC.

- Geographical Information Systems - Certificate of Completion (p. 127)

DRFT 100 Introduction to Architecture, Engineering, & Construction 3 Credits (3)
Introduction to and exploration of careers in the fields of architecture, engineering, and construction. Specific fields to include: architecture, civil engineering, mechanical engineering, structural engineering, engineering technology, residential construction, commercial construction, geographical information systems (GIS), surveying, sustainable design, and green building.
Crosslist: ARCH 1310
View Course Outcomes

DRFT 101 Introduction to Drafting and Design Technologies 1 Credit (1)
Professional and student organizations associated with the Drafting and Design Technologies program, degree requirements, employment skills and work habits, and university and college policies and procedures will be explored. Students will be introduced to the current learning management system and career-readiness certification.
View Course Outcomes

DRFT 105 Technical Drawing for Industry 3 Credits (3)
Technical sketching, basic CAD, and interpretation of drawings with visualization, speed and accuracy highly emphasized. Areas of focus include various trades such as machine parts, welding, heating and cooling, and general building sketches/plan interpretation. (2+2P)
View Course Outcomes

DRFT 108 Drafting Concepts/Descriptive Geometry 2 Credits (2)
Basic manual drafting skills, sketching, terminology and visualization. Graphical solutions utilizing applied concepts of space, planar, linear and point analyses. Metric and S.I. units introduced. (1+2P)
View Course Outcomes

DRFT 109 Computer Drafting Fundamentals 3 Credits (3)
Introduction to principles and fundamentals of drafting using both manual drawing techniques and computer-aided drafting (CAD) applications. (2+2P)
Repeatable: up to 3 credits
Crosslist: E T 109 and C E 109
View Course Outcomes

DRFT 112 Drafting Concepts/Computer Drafting Fundamentals I 4 Credits (4)
Basic drafting skills, terminology, and visualization. Introduction to principles and fundamentals of computer-aided drafting. Prerequisites: OECS 207, OECS 125. (2+4P)
View Course Outcomes

DRFT 113 Drafting Concepts/Computer Drafting Fundamentals II 4 Credits (4)
Drafting for mechanical/industrial applications; machine part detailing, assemblies in orthographic, isometric, auxiliary, oblique, and sectional views. Two-dimensional AutoCAD with introduction to 3-D AutoCAD. (2+4P)
Prerequisite(s): DRFT 112
Learning Outcomes
1. Create and draw a logo and title block
2. Design living spaces
3. Design and draw a workable floor plan, fully dimensioned with schedules
4. Locate and draw the floor plan on a site plan
5. Draw interior and exterior elevations
6. Draw sections and details
7. Save and plot

View Course Outcomes

DRFT 114 Introduction to Solid Modeling 3 Credits (3)
2D mechanical drafting and 3D mechanical solid modeling utilizing the latest version of AutoCAD software. Industry dimensioning and annotation standards will be emphasized. 2D multi-view working drawings, 3D solid models, and basic 3D model assemblies will be introduced.
Prerequisite(s): DRFT 109 (2+2P)
Learning Outcomes
1. Upon successful completion of this course, the student will have an understanding of and the ability to use CAD techniques.

View Course Outcomes

DRFT 115 General Construction Safety 3 Credits (3)
Overview of general construction safety related to building, highway and road construction, and surveying field work for entry-level individuals. Students will also have the opportunity to earn a 10-hour construction industry OSHA card.
Repeatable: up to 3 credits
View Course Outcomes

DRFT 124 Introduction to Geometric Dimensioning and Tolerancing 3 Credits (3)
Introduction to geometric dimensioning and tolerancing (GD&T) for the mechanical CAD drafting, solid modeling, mechanical engineering technology, mechanical engineering, and manufacturing industries. Related industry standard finishes and fasteners will also be introduced and explored. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 130 General Building Codes 3 Credits (3)
Interpretation of the Building Code, local zoning codes, A.D.A. Standards and the Model Energy Code to study construction and design requirements and perform basic plan checking. (2+2P)
View Course Outcomes

DRFT 135 Electronics Drafting I 3 Credits (3)
Drafting as it relates to device symbols; wiring, cabling, harness diagrams and assembly drawings; integrated circuits and printed circuit boards; schematic, flow and logic diagrams; industrial controls and electric power fields. Drawings produced using various CAD software packages. Prerequisites: DRFT 108 and DRFT 109. (2+2P)
View Course Outcomes

DRFT 143 Civil Drafting Fundamentals 3 Credits (3)
Introduction to drafting in the field of Civil Engineering. Drawings, projects, and terminologies related to topographic, contour drawings, plan and profiles, and street/highway layout. (2+2P)
Prerequisite(s): DRFT 109
Crosslist: E T 143
View Course Outcomes

DRFT 151 Construction Principles and Print Reading 3 Credits (3)
Introduction to construction materials, methods, and basic cost estimating and print reading applicable in today's residential, commercial, and public works industry. Instruction by print reading and interpretation, field trips, and actual job-site visits and progress evaluation. (2+2P)
View Course Outcomes

DRFT 153 Survey Drafting Applications 3 Credits (3)
Introduction to drafting in the field of survey engineering. Drawings, projects and terminologies related to Point Data, topography, land/boundary surveys, legal descriptions and plat surveys. Using the current Autodesk software. (2+2P)
Prerequisite(s): DRFT 109
Crosslist: SUR 143
View Course Outcomes

DRFT 160 Construction Take-Offs and Estimating 3 Credits (3)
Computing and compiling materials and labor estimates from working drawings using various techniques common in general building construction and in accordance with standard specifications and estimating formats. Use of spreadsheets and estimating software introduced. (2+2P)
Prerequisite(s): DRFT 151
View Course Outcomes

DRFT 163 Civil Infrastructure Detailing 3 Credits (3)
Infrastructure detailing related to civil engineering projects including: ponding, roadway, sewer, and storm-water structures; concrete foundations; and related utility details. (2+2P)
Prerequisite(s): DRFT 109
View Course Outcomes

DRFT 164 Intermediate Mechanical Drafting/Solid Modeling 3 Credits (3)
Intermediate 3D mechanical parametric solid modeling and assembly creation utilizing the latest version of Autodesk Inventor software. The creation of 2D working drawings from 3D solid models will be emphasized. Geometric Dimensioning and Tolerancing (GD&T), basic material properties, and industry standard fastening and manufacturing methods will be introduced. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 165 Introduction to Building Information Modeling 3 Credits (3)
Introduction to Building Information Modeling (BIM) in the development of virtual 3D building models, construction documents, renderings and basic animations related to architectural, structural, and mechanical/electrical/plumbing building components. Utilizes the latest BIM technologies in the integration one, parametric BIM. (2+2P)
View Course Outcomes

DRFT 180 Residential Drafting 3 Credits (3)
Basic residential drafting including, floor plans, foundation plans, sections, roof plans, exterior and interior elevations, and site plans. Applicable residential building and zoning codes, construction methods and materials, adaptable residential design, and drawing and sheet layout for architectural drafting will be introduced. (2+2P)
Prerequisite(s): DRFT 109
Learning Outcomes
  1. Create and draw a logo and title block
  2. Design living spaces
  3. Design and draw a workable floor plan, fully dimensioned with schedules
  4. Locate and draw the floor plan on a site plan
  5. Draw interior and exterior elevations
  6. Draw sections and details
  7. Save and plot

View Course Outcomes

DRFT 181 Commercial Drafting 3 Credits (3)
Drafting principles, plan coordination, and code analysis applicable in the development of working drawings for commercial, public, and industrial building projects. Students will utilize National Cad Standards, ADA Standards, and will be introduced to modern office practice. (2+2P)
Prerequisite(s): DRFT 109
Repeatable: up to 3 credits
Learning Outcomes
  1. Upon successful completion of this course, the student will understand and the ability to use CAD techniques in construction.

View Course Outcomes

DRFT 190 Finding and Maintaining Employment 2 Credits (2)
Techniques in self-evaluations, resume writing, application completion, job interviewing, and job retention. Exposure to work ethics, employee attitudes, and employer expectations.
View Course Outcomes

DRFT 204 Geographic Information Systems Technology 3 Credits (3)
The use of digital information for which various digitized data creation methods are captured. Users will capture, store, analyze and manage spatially referenced data in a modeled mapping procedure. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

DRFT 214 Advanced Solid Modeling 3 Credits (3)
Advanced 3D mechanical parametric solid modeling and assembly creation utilizing the latest version of Solidworks software. The creation of 2D working drawings from 3D solid models and the creation of 3D models for machining/manufacturing will be emphasized. Geometric Dimensioning and Tolerancing (GD&T), material properties, and industry standard fastening and manufacturing methods will be further explored. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 222 Introduction to Geomatics 3 Credits (3)
Theory and practice of geomatics as applied to plane surveying in the areas of linear measurements, angle measurements, area determination, differential and trigonometric leveling, and topographic mapping. (2+3P)
Prerequisite(s): MATH 1250G or MATH 1430G
Crosslist: SUR 222
View Course Outcomes

DRFT 230 Building Systems Drafting 3 Credits (3)
Development of working drawings for electrical, plumbing, and HVAC systems, for residential and commercial building through the applications of both 2D Drafting and 3D Building Information Modeling (BIM) techniques. Basics of project setup, National CAD Standards, ADA Standards, modern office practice, code analysis, as well as Sustainability and LEED for new construction. (2+2P)
Prerequisite(s): DRFT 180 or DRFT 181
View Course Outcomes

DRFT 240 Structural Systems Drafting 3 Credits (3)
Study of foundations, wall systems, floor systems and roof systems in residential, commercial and industrial design/construction. Produce structural drawings including foundation plans, wall and building sections, floor and roof framing plans, shop drawings and details; schedules, materials lists and specifications. Use of various software. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 180 or DRFT 181
Repeatable: up to 3 credits
View Course Outcomes

DRFT 242 Roadway Development Drafting 3 Credits (3)
Advanced civil/survey technology and drafting related to roadway development. Emphasis is on relevant terminology, codes/standards, and the production of complex working drawings such as topographical/grading, drainage, master utilities, roadway P P/details/etc., according to agency standards. (2+2P)
Prerequisite(s): DRFT 143
Repeatable: up to 3 credits
View Course Outcomes

DRFT 243 Land Development Drafting 3 Credits (3)
Advanced civil/survey technology and drafting related to land development. Emphasis is on relevant terminology codes/standards, and the production of complex working drawings such as subdivision plats, local utility and drainage plans, construction details roadway P P, etc., according to local development/agency standards. (2+2P)
Prerequisite(s): DRFT 143 and DRFT 153
View Course Outcomes

DRFT 250 Principles of Detailing and Design 3 Credits (3)
Advanced practice in construction documentation in the development and coordination of working drawings & specifications. In particular, will utilize Architectural Graphic Standards, National CAD Standards, and ADA standards to develop detail drawings related to Architectural, Civil, Structural and Building Mechanical systems. Will also be introduced to basic principles, factors, and process of building design such as space planning, site analysis, and basic architectural programming. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 180 or DRFT 181
Repeatable: up to 3 credits
View Course Outcomes

DRFT 254 Spatial Data Processing 3 Credits (3)
Utilizes the tools and technologies of GIS, processing volumes of geodata identifying a numerical, coded or listed map. Involves the analysis of spatial data from various diverse applications and place in a descriptive mapping process. (2+2P)
Prerequisite(s): DRFT 204
Repeatable: up to 3 credits
View Course Outcomes

DRFT 255 Independent Study 1-3 Credits
Instructor-approved projects in drafting or related topics specific to the student's individual areas of interest and relevant to the drafting and graphics technology curriculum. Consent of instructor required.
Repeatable: for a maximum of 6 credits
View Course Outcomes

DRFT 258 Introduction to Infraworks 3 Credits (3)
Introduction to the utilization of Infraworks software for the conceptualization, optimization, and visualization of infrastructure projects in the context of the built and natural environment. (2+2P)
Prerequisite(s): DRFT 143
View Course Outcomes

DRFT 265 Advanced Building Information Modeling Applications 3 Credits (3)
Advanced applications of Building Information Modeling (BIM) including the creation of, and practice in collaborative work sets, data and design analyses, energy modeling and analysis, preliminary LEED analysis, construction take-offs & estimation, and construction animation, through use of various BIM and related software. (2+2P)
Prerequisite(s): DRFT 165
View Course Outcomes

DRFT 274 GIS Theory and Analysis 3 Credits (3)
Analyzes the hypothesis in which location and spatial data sufficiently quantities the appropriate statistical methodology. (2+2P)
Prerequisite(s): DRFT 254
Repeatable: up to 3 credits
View Course Outcomes

DRFT 276 Computer Rendering and Animation I 3 Credits (3)
Introduction to technical applications of computer generated renderings and animations for the architecture and engineering fields. 3D models, photo-realistic renderings, and basic animation movie files will be produced utilizing industry standard modeling and animation software. (2+2P)
View Course Outcomes

DRFT 288 Portfolio Development 3 Credits (3)
Production of a portfolio consisting of previously produced student work related to the student's individualized degree option. Process shall include the compilation and organization of working and presentation drawings, construction documents, BIM Models, and renderings/animations. Students will learn the basics of design layout and online portfolio documentation. Job search and resume preparation activities will also be required. Production of new material and content may also be required. This course is designed as a last semester course in the Drafting & Design curricula. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

DRFT 290 Special Topics 4 Credits (4)
Topics subtitled in the Schedule of Classes.
Repeatable: for a maximum of 12 credits
View Course Outcomes

DRFT 291 Cooperative Experience 6 Credits (6)
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student meets with advisor weekly. Graded S/U.
View Course Outcomes

DRFT 295 Professional Development and Leadership DAGA 1 Credit (1)
Students gain experience in leadership, team building, performing community service, and membership and/or leadership in a student organization.
Repeatable: up to 6 credits
View Course Outcomes

GEOG 1110G Physical Geography 4 Credits (4)
This course introduces the physical elements of world geography through the study of climate and weather, vegetation, soils, plate tectonics, and the various types of landforms as well as the environmental cycles and the distributions of these components and their significance to humans. (3+3P)
View Course Outcomes

GEOG 1120G World Regional Geography 3 Credits (3)
Overview of the physical geography, natural resources, cultural landscapes, and current problems of the worlds major regions. Students will also examine current events at a variety of geographic scales.
View Course Outcomes

GEOG 1130G Human Geography 3 Credits (3)
This course serves as an introduction to the study of human geography. Human geography examines the dynamic and often complex relationships that exist between people as members of particular cultural groups and the geographical spaces and places in which they exist over time and in the world today.
View Course Outcomes

GEOG 2130 Map Use and Analysis 3 Credits (3)
Exploration of the cartographic medium. Development of critical map analysis and interpretation skills, and map literacy. Comprised of traditional lecture, labs, and map use projects. (2+3P)
Learning Outcomes
1. Accurately measure bearings and distances on maps.
2. Read and interpret terrain and landform representation.
3. Utilize a magnetic compass for basic land navigation and basic map making.
4. Utilize a GPS instrument for basic land navigation.
5. Recognize and describe basic physical and cultural spatial patterns portrayed on maps.
6. Analyze and interpret the significance of spatial patterns portrayed on maps.
7. Perform elementary spatial statistical analysis on geographic data.
8. Appreciate and utilize the significance of place names and cultural patterns.
9. Critically examine maps for evidence of information misuse or propagandist motives. 1
10. Recognize and utilize appropriate map categories, symbols, projections, and coordinate systems to effectively and accurately portray, read, analyze, and interpret geographic data.

View Course Outcomes

GEOG 2996 Topics in Geography 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
Repeatable: for a maximum of 12 credits.
View Course Outcomes

Geographical Information Systems - Certificate of Completion

This certificate focuses on the systematic study of map-making and the application of mathematical, computer, and other techniques to the analysis of large amounts of geographic data and the science of mapping geographic information. Includes instruction in cartographic theory and map projections, computer-assisted cartography, geographic information systems, map design and layout, photogrammetry, air photointerpretation, remote sensing, spatial analysis, geodesy, cartographic editing, and applications to specific industrial, commercial, research, and governmental mapping problems.

Examples: Geographic Information Systems (GIS), Spatial Analysis, Geomatics, Remote Sensing

A final grade of C- or better is required in all DRFT courses.

Code	Title	Hours
Technical Requirements		
DRFT 109	Computer Drafting Fundamentals	3
DRFT 153	Survey Drafting Applications	3
DRFT 204	Geographic Information Systems Technology	3
DRFT 254	Spatial Data Processing	3
DRFT 274	GIS Theory and Analysis	3
GEOG 1110G	Physical Geography (or Advisor Approved Elective DRFT, GEOG, or SUR)	4
Total Hours		**19**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
DRFT 109	Computer Drafting Fundamentals	3
DRFT 204	Geographic Information Systems Technology	3
GEOG 1110G	Physical Geography	4
	Hours	10
Spring		
DRFT 153	Survey Drafting Applications	3
DRFT 254	Spatial Data Processing	3
DRFT 274	GIS Theory and Analysis	3
	Hours	9
	Total Hours	19

Health Information Technology

Health Information Technology is the comprehensive management of health information across computerized systems and its secure exchange between health care consumers and providers. The curriculum

emphasizes medical billing and coding, anatomy and physiology, medical billing, records management, and pharmacology.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 61 credits for the associate's degree must be completed at SEMNC.

HIT 110 Electronic Health Records 3 Credits (3)
Current electronic health record principles, methods and procedures, and computerized medical record concepts and software applications will be introduced.
View Course Outcomes

HIT 120 Health Information Introduction to Pharmacology 3 Credits (3)
Introduction to the principles of pharmacology, including drug terminology; drug origins, forms, and actions; routes of administration; as well as the use of generic name drugs, trade name drugs and categories of drugs to treat multiple and specific body systems.
Repeatable: up to 3 credits
Crosslist: NURS 120
Learning Outcomes
1. Summarize major drug standard and legislation requiring legal responsibilities of the health care practitioner when dispensing medications.
2. Describe the major drug classification systems
3. Analyze the sources of drugs and their pharmacokinetic processes and variables that affect drug action and effects
4. Identify drug forms, routes of delivery, and the supplies and techniques necessary for safe and appropriate administration.
5. Apply the principals that support the moral, ethical, and legal responsibilities of the health care practioner when administering medications safely and accurately
6. Assess the four parenteral routes, application of each and specific injection types and sites
7. Identify precautions that should be taken when administering medications and various demographics, and in particular, for older adults
8. Identify the primary routes of poisoning and the procedures, therapies and preventive measures involved in patient care and education
9. Identify commonly used medications 1
10. Outline the sources, mechanism of action, and indications for specific drug therapies 1
11. List the appropriate dosages for several drugs 1
12. Describe the side effects, precautions, contraindications, and interactions for specific medications 1
13. Identify recent actions taken by government and by manufacturers for specific drugs.

View Course Outcomes

HIT 130 Health Information Technology Anatomy & Physiology 3 Credits (3)
An introductory course in the basics of human structure and function. Body systems are examined as to how they relate to proper code selection and as part of the functioning of the body as a whole.
View Course Outcomes

HIT 140 Health Information Introduction to Pathophysiology 3 Credits (3)
Introduction to the nature of disease and its effect on body systems. Disease processes affecting the human body via an integrated approach to specific disease entities will be presented including a review of normal functions of the appropriate body systems. Diseases will be studied in relation to their etiology, pathology, physical signs and symptoms, diagnostic procedures, complications, treatment modalities and prognosis.
Learning Outcomes
1. Describe basic disease concepts, including mechanisms of disease, neoplasms, inflammation, and infection
2. Examine the basic anatomy and physiology of the body systems, etiology of various diseases and conditions, important signs and symptoms of disorders, common diagnostics, typical course and management of disorders, preventive measures, and the effects of aging
3. Identify the terminology, etiology, signs and symptoms, common diagnostics, typical course and management of disorders, and preventive measures associated with genetic and developmental disorders, childhood diseases, and mental health disorders
4. Recognize important medical terminology related to the understanding of human diseases
5. State the drug classifications and examples of medications in each class used to treat diseases, disorders and conditions related to each body system.

View Course Outcomes

HIT 150 Introduction to Medical Terminology 3 Credits (3)
The study and understanding of medical terminology as it relates to diseases, their causes and effects, and the terminology used in various medical specialties. Emphasis will be placed on learning the basic elements of medical words, appropriate spelling and use of medical terms, and use of medical abbreviations.
Repeatable: up to 3 credits
Crosslist: NURS 150, AHS 120 and BOT 150
Learning Outcomes
1. Effective communication skills in reading, writing, listening and speaking.
2. Basic critical thinking skills include problem identification, evidence acquisition, evidence evaluation, and reasoning/conclusion.
3. An understanding of personal and social responsibility.
4. Apply the fundamental concepts of quantitative reasoning in mathematics and science.
5. Appropriate information and digital literacy and skills for personal and professional use.

View Course Outcomes

HIT 158 Advanced Medical Terminology 3 Credits (3)

Builds upon the concepts covered in HIT 150 or AHS 120 providing greater understanding of how to properly use and apply medical terminology used in the various health fields. Medical terminology associated with the body system's anatomy and physiology, pathology, diagnostic and therapeutic procedures, pharmacology, and abbreviations will be emphasized.

Prerequisite(s): HIT 150 or AHS 120

Learning Outcomes

1. Provide the student with an advanced knowledge and understanding of medical terms.
2. Prepare the advanced student for a career in the healthcare field.
3. State the derivation of most healthcare terms.
4. Use the rules given to build and spell healthcare terms and build singular terms to their plural forms.
5. Recognize and recall an introductory word bank of prefixes, suffixes, and combining forms and their respective meanings.
6. Recognize and use terms associated with the organization of the body, positional and directional vocabulary, body.
7. Recognize and use terms related to the anatomy, physiology, pathology and procedures for: the musculoskeletal system, integumentary system, digestive system, genitourinary system, pregnancy, childbirth, immune system, circulatory system, respiratory system, nervous system, mental health, eyes, ears, and endocrine system.

View Course Outcomes

HIT 221 Internship I 3 Credits (3)

Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. C- or better is required for this course. Restricted to: BOT, HIT majors.

View Course Outcomes

HIT 228 Medical Insurance Billing 3 Credits (3)

Comprehensive overview of the insurance specialist's roll and responsibilities. Concepts and applications that will assist the student in understanding the steps necessary for successfully completing the insurance claim filing and reimbursement processes for various insurance carriers, both private and government, will be emphasized.

Prerequisite(s): HIT/NURS 150; OATS 150

View Course Outcomes

HIT 240 Health Information Quality Management 3 Credits (3)

Introduction to basic concepts of quality improvement and performance improvement as they apply to health record systems and the health care industry. Quality assessment and improvement standards and requirements of licensing, accrediting fiscal and other regulatory agencies will be presented.

View Course Outcomes

HIT 248 Medical Coding I 3 Credits (3)

Comprehensive overview of the fundamentals, coding conventions, and principles of selecting the most appropriate ICD-10-CM/PCS diagnostic and procedure codes. The most recent version of ICD-10-CM/PCS and an in depth study of current Official Coding Guidelines for coding and reporting will be emphasized. (2+2P)

Prerequisite(s): OATS 228

Repeatable: up to 3 credits

View Course Outcomes

HIT 255 Special Topics 3 Credits (3)

Specific topics to be announced in the Schedule of Classes.

Repeatable: up to 6 credits

View Course Outcomes

HIT 258 Medical Coding II 3 Credits (3)

Continuation of Medical Coding I. Comprehensive overview of the coding and reporting guidelines, fundamentals, coding conventions, and principles of selecting the most appropriate CPT and HCPCS procedural codes for all medical specialties. The most recent version of CPT and a continued study of the ICD-10-CM/PCS coding conventions and principles will be emphasized. Designed as a medical coding capstone course.

Prerequisite(s): HIT 248

Repeatable: up to 3 credits

View Course Outcomes

HIT 268 Health Information System 3 Credits (3)

Overview of health data management, work planning, and organization principles; an introduction to health care information systems; and review of the fundamentals of information systems for managerial, clinical support, and information systems.

View Course Outcomes

Health Information Technology - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 61-64 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

All courses must be completed with a C or higher.

Code	Title	Hours
General Education		
Courses required from Area I, II, IV, V, and VI. [1,2]		15-16
Area I: Communications		
Area II: Mathematics		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
AHS 140	Essentials of Anatomy and Physiology	4
AHS 202	Legal and Ethical Issues in Health Care	3
BCIS 1110	Fundamentals of Information Literacy and Systems	3
HIT 120	Health Information Introduction to Pharmacology	3
HIT 140	Health Information Introduction to Pathophysiology	3

HIT/NURS/OATS 150	Introduction to Medical Terminology	3
HIT 158	Advanced Medical Terminology	3
HIT 221	Internship I	3
HIT 240	Health Information Quality Management	3
HIT 248	Medical Coding I	3
HIT 258	Medical Coding II	3
HIT 268	Health Information System	3
MGMT 2110	Principles of Management	3
OATS 208	Medical Office Procedures	3
OATS/HIT 228	Medical Insurance Billing	3
Total Hours		**61-62**

1

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
GEN Ed Course - One course from Areas I-VII [1,2]		3
GEN Ed Course - One course from Areas I-VII [1,2]		3
Choose one from the following:		3
HIT 150	Introduction to Medical Terminology	
NURS 150	Medical Terminology	
OATS 150	Medical Terminology	
OATS 208	Medical Office Procedures	3
AHS 140	Essentials of Anatomy and Physiology	4
	Hours	**16**
Spring		
MGMT 2110	Principles of Management	3
HIT 158	Advanced Medical Terminology	3
AHS 202	Legal and Ethical Issues in Health Care	3
BCIS 1110	Fundamentals of Information Literacy and Systems	3
HIT 228 or OATS 228	Medical Insurance Billing or Medical Insurance Billing	3
	Hours	**15**
Summer		
GEN Ed Course - One course from Areas I-VII [1,2]		3
GEN Ed Course - One course from Areas I-VII [1,2]		3-4
	Hours	**6-7**
Second Year		
Fall		
HIT 140	Health Information Introduction to Pathophysiology	3
HIT 248	Medical Coding I	3
HIT 120	Health Information Introduction to Pharmacology	3
HIT 240	Health Information Quality Management	3
GEN Ed Course - One course from Areas I-VII [1,2]		3
	Hours	**15**

Spring		
HIT 221	Internship I	3
HIT 258	Medical Coding II	3
GEN Ed Course - One course from Areas I-VII [1,2]		3
GEN Ed Course - One course from Areas I-VII [1,2]		3
HIT 268	Health Information System	3
	Hours	**15**
	Total Hours	**67-68**

1

Each course selected must be from a different area and students cannot take multiple courses in the same area.

2

See the General Education section of the catalog for a full list of courses.

Medical Coding and Billing - Certificate of Completion

The Medical Coding and Billing Certificate program prepares students to fill essential jobs in the healthcare field, connecting health car providers, patients, and insurance companies. Coders review accuracy of medical records and translate information into codes for insurance claims. Course work includes coding, billing, medical office procedures, medical terminology and a capstone internship course to prepare students to take the Certified Coding Associate (CCA) exam upon completion of the program.

All courses must be completed with a C- or higher.

Code	Title	Hours
Technical Requirements		
AHS 140	Essentials of Anatomy and Physiology	4
AHS 202	Legal and Ethical Issues in Health Care	3
HIT/NURS/OATS 150	Introduction to Medical Terminology	3
HIT 221	Internship I	3
HIT/OATS 228	Medical Insurance Billing	3
HIT 240	Health Information Quality Management	3
HIT 248	Medical Coding I	3
HIT 258	Medical Coding II	3
Total Hours		**25**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Semester 1		
Summer		
HIT 150	Introduction to Medical Terminology	3
HIT 228	Medical Insurance Billing	3
	Hours	**6**
Semester 2		
Fall		
AHS 140	Essentials of Anatomy and Physiology	4

HIT 240	Health Information Quality Management	3
HIT 248	Medical Coding I	3
	Hours	**10**
Semester 3		
Spring		
AHS 202	Legal and Ethical Issues in Health Care	3
HIT 221	Internship I	3
HIT 258	Medical Coding II	3
	Hours	**9**
	Total Hours	**25**

Heritage Interpretation

The **Heritage Interpretation** program at SENMC emphasizes New Mexico's rich history, natural setting, and unique cultural blend. Students will study a variety of subjects that will broaden their knowledge of the Southwest's heritage and improve their ability to communicate with a diverse public. Two program options are available –

- the Certificate in Heritage Interpretation and
- the Associate of Arts Degree in Heritage Interpretation.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 63 credits for the associate's degree must be completed at SENMC. Total credits required for degree 63.

- Heritage Interpretation - Associate of Arts (p. 131)
- Heritage Interpretation - Certificate of Completion (p. 132)

Heritage Interpretation - Associate of Arts

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 63-65 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	
English Composition - Level 2		3
ENGL 2210G	Professional & Technical Communication	
or ENGL 222	Writing in the Humanities and Social Science	
Oral Communication		3
COMM 1130G	Public Speaking	
or COMM 11	Introduction to Communication	
Area II: Mathematics		3
MATH 1220G	College Algebra (Core Curriculum Requirement) [1]	
Area III: Laboratory Science		4
ENVS 1110G	Environmental Science I (Core Curriculum Requirement) [1]	
Area IV: Social/Behavioral Sciences		6
POLS 1120G	American National Government (Core Curriculum Requirement) [1]	
GEOG 1130G	Human Geography (Core Curriculum Requirement) [1]	
or GEOL 1110G	Physical Geology	
Area V: Humanities		
HIST 1150G	Western Civilization I (Core Curriculum Requirement) [1]	3
Area VI: Creative and Fine Arts [3]		3
Area VII: Flexible 3 (General Education Elective)		
LING 2110G	Introduction to the Study of Language and Linguistics (Core Curriculum Requirement) [1]	
Core Curriculum Requirements		
ANTH 1115G	Introduction to Anthropology	3
HIST 1110G	United States History I (Major Requirement)	3
HIST 1120G	United States History II	3
ANTH 1136	Introduction to Historic Preservation	3
or ANTH 2140G	Indigenous Peoples of North America	
HIST 1160G	Western Civilization II	3
HIST 2110	Survey of New Mexico History	3
PHED 2996	Topics in Physical Education (Camping and Survival for Archaeologists and Preservationists)	1
PSYC 1110G	Introduction to Psychology	3
or PSYC 2221	Applied Psychology	
Electives choose courses from the following:		12-15
HIST 2996	Topics in History [2]	
MATH 1215	Intermediate Algebra	
SOCI 1110G	Introduction to Sociology	
SOCI 2261	Issues in Death and Dying	
SOCI 2310G	Contemporary Social Problems	
Total Hours		**63-65**

[1]

See the General Education section of the catalog for a full list of courses

[2]

 May be repeated for up to 12 hours.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
HIST 1150G	Western Civilization I	3
ANTH 1115G	Introduction to Anthropology	3
ENGL 1110G	Composition I	4
GEOG 1130G	Human Geography	3-4
or GEOG 1110G	or Physical Geography	
	Hours	**13-14**
Spring		
HIST 1160G	Western Civilization II	3

ANTH 1136 or ANTH 2140G	Introduction to Historic Preservation or Indigenous Peoples of North America	3
Choose one from the following:		3
ENGL 2210G	Professional & Technical Communication	
ENGL 2221G	Writing in the Humanities and Social Science	
MATH 1220G	College Algebra [1, 2]	3
POLS 1120G	American National Government	3
	Hours	**15**
Summer		
HIST 2996	Topics in History (Internship in Heritage Interpretation) [3]	3
	Hours	**3**
Second Year		
Fall		
HIST 1110G	United States History I	3
HIST 2110	Survey of New Mexico History	3
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
ENVS 1110G	Environmental Science I	4
PHED 2996	Topics in Physical Education (Camping and Survival for Archaeologists and Preservationists)	1
	Hours	**14**
Spring		
HIST 1120G	United States History II	3
LING 2110G	Introduction to the Study of Language and Linguistics	3
Choose one from the following:		3
SOCI 1110G	Introduction to Sociology	
SOCI 2261	Issues in Death and Dying	
SOCI 2310G	Contemporary Social Problems	
PSYC 1110G or PSYC 2221	Introduction to Psychology or Applied Psychology	3
Area IV: Creative and Fine Arts Course [4]		3
	Hours	**15**
Summer		
HIST 2996	Topics in History (Internship in Heritage Interpretation) [3]	3
	Hours	**3**
	Total Hours	**63-64**

1

MATH 1220G College Algebra is required for the degree but students may need to take any prerequisites needed to enter MATH 1220G first.

2

MATH 1215 Intermediate Algebra is another allowable course, however it will not count towards the General Education Requirements.

3

 May be repeated for up to 12 hours.

4

See the General Education section of the catalog for a full list of courses

Heritage Interpretation - Certificate of Completion

Code	Title	Hours
Core Curriculum Requirements		
ANTH 1115G	Introduction to Anthropology	3
ANTH 1136	Introduction to Historic Preservation	3
COMM 1130G or COMM 1115	Public Speaking Introduction to Communication	3
ENGL 1110G	Composition I	4
ENVS 1110G	Environmental Science I	4
HIST 1150G or HIST 1160G	Western Civilization I Western Civilization II	3
HIST 1110G or HIST 1120G	United States History I United States History II	3
HIST 2110	Survey of New Mexico History	3
MATH 1220G	College Algebra	3
Electives		**4**
Choose courses from the following:		
HIST 2996	Topics in History	
SOCI 1110G	Introduction to Sociology	
SOCI 2261	Issues in Death and Dying	
SOCI 2310G	Contemporary Social Problems	
Total Hours		**33**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ANTH 1115G	Introduction to Anthropology	3
ENGL 1110G	Composition I	4
HIST 1150G or HIST 1160G	Western Civilization I or Western Civilization II	3
HIST 2110	Survey of New Mexico History	3
Elective [1]		4
	Hours	**17**
Spring		
ANTH 1136	Introduction to Historic Preservation	3
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
HIST 1110G or HIST 1120G	United States History I or United States History II	3
Select one MATH "G" Course [2]		3
Select one Science "G" course with a lab from ASTR, BIOL, CHEM, ENVS, GEOG (must be GEOG 1110G is selected), GEOL. or PHYS [2]		4
	Hours	**16**
	Total Hours	**33**

1

Elective course(s) should be from either the ANTH, POLS, HIST, MATH or SPAN prefix

2

See the General Education section of the catalog for a full list of courses.

Hospitality and Tourism

The **Associate of Applied Science in Hospitality and Tourism** prepares the graduate for an entry-level position in tourism. There are two options available – Food and Beverage/Culinary Arts and Lodging and Tourism. Training is offered in supervision, communication, marketing, finance, and operations. This program is designed for those entering the field as well as individuals already employed in the industry who want to upgrade their skills.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Hospitality and Tourism Food & Beverage - Associate of Applied Science (p. 134)
- Hospitality and Tourism Lodging & Tourism - Associate of Applied Science (p. 134)

HOST 155 Special Topics 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
View Course Outcomes

HOST 201 Introduction to Hospitality Industry 3 Credits (3)
Overview of hospitality industry; organization and operation of lodging, food and beverage, and travel and tourism segments; focus on career opportunities and future trends of hospitality industry.
View Course Outcomes

HOST 202 Front Office Operations 3 Credits (3)
Hotel/motel front office procedures detailing flow of business, beginning with reservations and extending to the night audit process.
View Course Outcomes

HOST 203 Hospitality Operations Cost Control 3 Credits (3)
Management of Food & Beverage facilities using cost control techniques. Functional training in menu analysis and development with all phases of product flow through a Food & Beverage organization explored.
View Course Outcomes

HOST 204 Promotion of Hospitality Services 3 Credits (3)
Organization of hotel marketing functions; developing a marketing plan to sell the varied services of the hotel/motel property.
View Course Outcomes

HOST 205 Housekeeping, Maintenance, and Security 3 Credits (3)
Function of housekeeping departments, including personnel, sanitation, maintenance, and materials. A survey of security procedures to include guest protection and internal security of hotel/motel assets.
View Course Outcomes

HOST 206 Travel and Tourism Operations 3 Credits (3)
Transportation, wholesale and retail operations, attractions, the traveler, tourism development, and operational characteristics of tourism business.
View Course Outcomes

HOST 208 Hospitality Supervision 3 Credits (3)
Strategies for directing, leading, managing change and resolving conflict. Prepares students to meet expectations of management, guests, employees, and governmental agencies.
View Course Outcomes

HOST 210 Catering and Banquet Operations 3 Credits (3)
Teaches the basics of catering and banquet operations, including computer coordination, planning, set up, service, and completion.
View Course Outcomes

HOST 214 Purchasing and Kitchen Management 3 Credits (3)
Technical purchasing concepts, product selection, and specifications. Safety and sanitation as they relate to food service establishments. Prepares student for work with HACCP programs.
Prerequisite(s): HOST 203
Repeatable: up to 3 credits
View Course Outcomes

HOST 216 Event, Conference and Convention Operations 3 Credits (3)
The ability to successfully plan, organize, arrange, and execute special events is critical to the success of many hospitality organizations. This course gives the student a grounding in the skills necessary to achieve success in this area. A variety of events are discussed and the similarities and differences with conferences and conventions are explored. Students are taught to organize and plan events of varying type and durations. Sales, logistics, and organizing skills are emphasized.
View Course Outcomes

HOST 219 Safety, Security and Sanitation in Hospitality Operations 3 Credits (3)
It is the responsibility of the manager to provide appropriate security, sanitation, and safety precautions in hospitality operations. Preparation for internal and external disasters is an important task for the Hospitality Manager. This course uses the National Restaurant Association ServSafe training material.
View Course Outcomes

HOST 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. Restricted to: HOST majors. Graded: S/U Grading (S/U, Audit)
Repeatable: up to 3 credits
View Course Outcomes

HOST 222 Cooperative Experience II 3 Credits (3)
Continuation of HOST 221. Restricted to majors. Graded: S/U. Restricted to HOST majors.
Prerequisite(s): HOST 221
View Course Outcomes

HOST 239 Introduction to Hotel Management 3 Credits (3)
This course covers basic management functions in hotels, resorts, Boutique Hotels, Bed & Breakfast establishments, and other lodging operations. All aspects of the operation are covered including guest management, operations, and sales and marketing.
View Course Outcomes

HOST 255 Special Topics 3 Credits (3)
Specific subjects to be announced in the Schedule of Classes.
Repeatable: up to 9 credits
View Course Outcomes

HOST 298 Independent Study 1-3 Credits
Individual studies directed by consenting faculty with prior approval of department chair.
Prerequisite(s): Minimum 3.0 GPA and sophomore standing
Repeatable: for a maximum of 3 credits
View Course Outcomes

Hospitality and Tourism Food & Beverage - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total a minimum of 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V and VI [1]		19-21
Area I: Communications		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
BLAW 2110	Business Law I	3
HOST 201	Introduction to Hospitality Industry	3
HOST 203	Hospitality Operations Cost Control	3
HOST 208	Hospitality Supervision	3
HOST 219	Safety, Security and Sanitation in Hospitality Operations	3
HOST 221	Internship I	3
OECS 105	Introduction to Information Technology	3
or BCIS 1110	Fundamentals of Information Literacy and Systems	
OECS 215	Spreadsheet Applications	3
Electives		**17**
Recommended courses listed below or any approved CHEF courses:		
CHEF 211	Food Production Management I	
CHEF 212	Food Production Management II	
CHEF 213	Bakery Management	
CHEF 214	Bakery Management II	
HOST 210	Catering and Banquet Operations	
Total Hours		**60-62**

[1]

See the General Education section of this catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
HOST 201	Introduction to Hospitality Industry	3
OECS 105 or BCIS 1110	Introduction to Information Technology or Fundamentals of Information Literacy and Systems	3
ENGL 1110G	Composition I (Area I: Communications)	4
Area VI: Creative and Fine Arts		3
Concentration Coursework (Elective) [3]		3
	Hours	**16**
Spring		
HOST 203	Hospitality Operations Cost Control	3
OECS 215	Spreadsheet Applications	3
PSYC 1110G or SOCI 1110G	Introduction to Psychology (Area IV: Social/Behavioral Sciences) or Introduction to Sociology	3
BLAW 2110	Business Law I	3
Concentration Coursework (Elective) [3]		3
	Hours	**15**
Summer		
ENGL 2210G	Professional & Technical Communication (Area VII: Flexible 3 (General Education Elective))	3
Area II: Mathematics		3
	Hours	**6**
Second Year		
Fall		
HOST 208	Hospitality Supervision	3
HOST 219	Safety, Security and Sanitation in Hospitality Operations	3
Area III: Laboratory Science		3
Concentration Coursework (Elective) [3]		6
	Hours	**15**
Spring		
HOST 221	Internship I	3
Concentration Coursework (Elective) [3]		3
Area V: Humanities		3
Concentration Coursework (Elective) [3]		6
	Hours	**15**
	Total Hours	**67**

[1]

Each course selected must be from a different area and students cannot take multiple courses in the same area.

[2]

See the General Education section of this catalog for a full list of courses.

[3]

See the Requirements tab for specific courses.

Hospitality and Tourism Lodging & Tourism - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total minimum of 60 credits. Developmental coursework will not count towards the degree

requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V, and VI		19-21
Area I: Communications		
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
BLAW 2110	Business Law I	3
HOST 201	Introduction to Hospitality Industry	3
HOST 202	Front Office Operations	3
HOST 203	Hospitality Operations Cost Control	3
HOST 204	Promotion of Hospitality Services	3
HOST 205	Housekeeping, Maintenance, and Security	3
HOST 206	Travel and Tourism Operations	3
HOST 208	Hospitality Supervision	3
HOST 210	Catering and Banquet Operations	3
HOST 216	Event, Conference and Convention Operations	3
HOST 219	Safety, Security and Sanitation in Hospitality Operations	3
HOST 221	Internship I	2-3
OECS 105	Introduction to Information Technology	3
or BCIS 1110	Fundamentals of Information Literacy and Systems	
OECS 215	Spreadsheet Applications	3
Total Hours		**60-63**

[1]

See the General Education section of this catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
HOST 201	Introduction to Hospitality Industry	3
OECS 105 or BCIS 1110	Introduction to Information Technology or Fundamentals of Information Literacy and Systems	3
Area I: Communications [1]		3-4
Area VI: Creative and Fine Arts [1]		3
Concentration Coursework (Elective) [2]		3
Hours		**15-16**
Spring		
BLAW 2110	Business Law I	3
HOST 203	Hospitality Operations Cost Control	3
OECS 215	Spreadsheet Applications	3
Area IV: Social/Behavioral Sciences [1]		3

Concentration Coursework (Elective) [2]		3
Hours		**15**
Second Year		
Fall		
HOST 208	Hospitality Supervision	3
HOST 219	Safety, Security and Sanitation in Hospitality Operations	3
Area II: Mathematics [1]		3-4
Area V: Humanities [1]		3
Concentration Coursework (Elective) [2]		3
Hours		**15-16**
Spring		
HOST 221	Internship I	3
Area III: Laboratory Science [1]		4
Concentration Coursework (Elective) [2]		3
Concentration Coursework (Elective) [2]		3
Concentration Coursework (Elective) [2]		3
Hours		**16**
Total Hours		**61-63**

[1]

See the General Education section of this catalog for a full list of courses.

[2]

See the Requirements tab for specific courses.

Industrial Maintenance Technology

The **Industrial Maintenance Technician** program prepares students with the education and experience necessary to begin employment within the Potash mining industry. Students receive training on state-of-the-art equipment which simulates the actual work performed both above and below ground in the potash mines. Additional exposure to the industry is provided through field experiences. Specializations offered within the curriculum include electrical and mechanical options.

Graduation Requirements

Certificate in Industrial Maintenance Technician: A cumulative GPA of 2.0 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC.

AAS in Industrial Maintenance Technician: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Industrial Maintenance Technician Electrical - Associate of Applied Science (p. 137)
- Industrial Maintenance Technician Mechanical - Associate of Applied Science (p. 138)
- Industrial Maintenance Technology Electrical - Certificate (p. 139)
- Industrial Maintenance Technology Mechanical - Certificate (p. 139)

INMT 133 Process Technology and Systems 4 Credits (4)
Provides instruction in the use of common process equipment. Students will use appropriate terminology and identify process equipment components such as piping and tubing, valves, pumps, compressors, turbines, motors, engines, heat exchangers, heaters, furnaces, boilers, filters dryers and other miscellaneous vessels. Included are the basic functions, scientific principles and symbols. Students will identify components on typical Process Flow Diagrams and Process and Instrument Diagrams.
View Course Outcomes

INMT 134 Maintenance Principles 4 Credits (4)
The course is an introduction to the maintenance of equipment utilizing mechanical, electrical and instrumentation concepts. Topics include: hand tools, bearing fundamentals, equipment lubrication, material handling, electrical safety, battery systems, diagrams, electrical production and distribution, transformers, breakers, switches, AC and DC motors, motor controllers and operations, and introduction to automation and instrumentation control.
View Course Outcomes

INMT 165 Equipment Processes 4 Credits (4)
This course introduces power transmission equipment and machinery components, including belt/chain driven equipment, speed reducers, variable speed drives, couplings, clutches, and conveying equipment. Students will learn the operation, maintenance, and troubleshooting for these types of equipment. The course also includes Overhead Crane Certification and Safety.
View Course Outcomes

INMT 205 Programmable Logic Controllers and Applications 4 Credits (4)
Students learn about programmable logic controllers; architecture; programming, interfacing, and applications. Hands-on experience on modern commercial PLC units is the main component.
Prerequisite(s): BCIS 1110
View Course Outcomes

INMT 223 Electrical Repairs 4 Credits (4)
This course outlines for students the types of problems that occur in electrical machinery and systems. The course covers trouble-shooting and diagnosis, preventative maintenance, and how to make necessary repairs.
View Course Outcomes

INMT 235 Mechanical Drives I 4 Credits (4)
This course teaches the fundamentals of mechanical transmission systems used in industrial, agricultural, and mobile applications. Students will learn industrial relevant skills including how to: operate, install and analyze performance, and design basic transmission systems using chains, feed-belts, spur gears, bearings, and couplings. Vibration analysis will be used to determine when to perform maintenance of power transmission components. The course also covers power transmission safety, and introduction to belt and chain drives (applications, installations, and tensioning), and introduction to gear drives, coupling, and bearing, basic troubleshooting, blueprint and print reading, learning the basics of electrical drives and PDM and PM.
View Course Outcomes

INMT 237 Hydraulics I 2 Credits (2)
This course teaches fundamentals of hydraulic systems used in industry mobile application. Students learn the basic theory of application of hydraulic and electricity as it applies to hydraulics. Covered in the course are basic systems, principles of flow, pressure, viscosity, filtration, and colling. Also covered are basic components such as motor, pumps, cylinders, piping and control and relief valves. Troubleshooting strategies are discussed, along with blueprint and print reading, and PDM and PM. Industry, relevant skills including how to operate, install, analyze performance, and design basic hydraulic systems, reviewing intermediate hydraulic components and system applications.
View Course Outcomes

INMT 261 Pump Operations I 4 Credits (4)
This course teaches how to select, operate, install, maintain and repair the many types of pumps used by industry. Students learn the theory and practical application of all types of processed pumps and pipe systems. It covers types, components, and systems operation. It also covers troubleshooting for flow loss and cavitation. Students learn how to select, operate, install, maintain and repair the many types of pumps used by industry. Other topics covered include: Net Positive Suction Head, pump flow/head measurement, pressure head conversion, pressure flow characteristics, cavitation, series/parallel pump operation, mechanical seal/stuffing box maintenance, multi stage operation and construction, positive displacement pumps, turbine, diaphragm, peristaltic, piston, gear, and magnetic pump systems.
View Course Outcomes

INMT 262 Piping Systems 2 Credits (2)
This course teaches students how to install, maintain and troubleshoot fluid systems such as how to select, size, identify, install a variety of types of piping, fittings, and valves. Measurement techniques from basic to precision measurement, gauging, including the fundamentals of dimensioning and tolerancing will taught.
View Course Outcomes

INMT 263 Mechanical Drives II 4 Credits (4)
This course teaches the bearings and gears used in heavy duty mechanical transmission systems. This course will emphasize linear access drives, clutches, and brakes. In addition, this course teaches how to set up, operate and apply laser shaft alignment to a variety of industrial applications. This course is a study of the basic concepts and procedures for the maintenance and operations of pumps, turbines, seals, bearings, and compressors. The course will provide the student with the knowledge and skills necessary to perform proper maintenance, repair, replacement and selection of pumps, turbines, seals, bearings and compressors. Also covered are advanced gearbox, coupling and bearings, precision alignment (shaft, flange, and sheave), as well as basic vibration analysis and thermography as troubleshooting and RCA aids.
View Course Outcomes

INMT 264 Rigging 2 Credits (2)
This course teaches how to safely move loads of different shapes and sizes using a variety of different methods. Students will lift loads and demonstrate how to move it. Students will use hoists, slings, ropes and fittings to learn how to safely lift a wide variety of loads. Included are weight estimation, lifting rules, load ratings (sling, wire, ropes and hoists).
View Course Outcomes

INMT 265 Hydraulics II 2 Credits (2)
This course teaches advanced hydraulics systems. The student will learn operation of advanced hydraulic systems applications, equipment installation, performance analysis of motors and pumps, accumulators, control, relief and check valve, equipment maintenance, and system design. The course covers accumulators, sequence valves, pilot circuits and unloader valves. Students learn more troubleshooting, hydraulic drives and other applications.
View Course Outcomes

INMT 267 Pump Operations II 2 Credits (2)
This course teaches the student the disassembly, inspection and reassembly of centrifugal and positive displacement pumps. This course allows the student to identify and replace worn or broken components of pumps, and learn predictive and preventive maintenance principles. Lockout of the pump will be performed in addition to measurements and alignment.
View Course Outcomes

Industrial Maintenance Technician Electrical - Associate of Applied Science

Code	Title	Hours
General Education		
Course required from Area I, II, IV, V, and VII. [1]		15-17
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [2]	
Area II: Mathematics		
MATH 1130G	Survey of Mathematics	
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VII: Flexible 3 (General Education Elective)		
ENGL 2210G	Professional & Technical Communication	3
Technical Requirements		
INMT 133	Process Technology and Systems	4
INMT 134	Maintenance Principles	4
INMT 165	Equipment Processes	4
INMT 205	Programmable Logic Controllers and Applications	4
INMT 223	Electrical Repairs	4
MAT 130	Applied Industrial Electricity I	4
MAT 135	Applied Industrial Electricity I	4
OEET 120	Basic Motor Controls	5
OEET 110	Basic Electricity and Electronics	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
INMT 133	Process Technology and Systems	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
ENGL 1110G	Composition I (Area I: Communications)	4
Area IV: Social/Behavioral Sciences		3
	Hours	**16**
Spring		
INMT 134	Maintenance Principles	4
INMT 165	Equipment Processes	4
ENGL 2210G	Professional & Technical Communication (Area VII: Flexible 3 (General Education Elective))	3
OEET 120	Basic Motor Controls	5
	Hours	**16**
Summer		
Area III: Laboratory Science		4
	Hours	**4**
Second Year		
Fall		
OEET 110	Basic Electricity and Electronics	4
MAT 130	Applied Industrial Electricity I	4
INMT 223	Electrical Repairs	4
Area V: Humanities		3
	Hours	**15**
Spring		
MAT 135	Applied Industrial Electricity I	4
MATH 1130G	Survey of Mathematics (Area II: Mathematics) [3]	3
INMT 205	Programmable Logic Controllers and Applications	4
OEET 295	Special Topics	2
Area VI: Creative and Fine Arts		3
	Hours	**16**
	Total Hours	**67**

[1]

Area IV: Social/Behavioral Sciences Courses:
- ANTH 1115G Introduction to Anthropology
- ECON 1110G Survey of Economics, ECON 2110G Macroeconomic Principles, or ECON 2120G Microeconomic Principles
- GEOG 1120G World Regional Geography or GEOG 1130G Human Geography
- POLS 1110G Introduction to Political Science or POLS 1120G American National Government
- SOCI 1110G Introduction to Sociology

2

Area V: Humanities Courses
- HIST 1110G United States History I or HIST 1120G United States History II
- HIST 1150G Western Civilization I or HIST 1160G Western Civilization II

3

MATH 1130G Survey of Mathematics is required for the degree but students may need to take any prerequisites needed to enter MATH 1130G first.

Industrial Maintenance Technician Mechanical - Associate of Applied Science

Code	Title	Hours
General Education		
Course required from Area I, II, IV, V, and VII [1,2]		15
Area I: Communications		
ENGL 1110G	Composition I	
Area II: Mathematics		
MATH 1130G	Survey of Mathematics [3]	
Area IV: Social/Behavioral Sciences		
Choose one from the following (3 credits):		
ANTH 1115G	Introduction to Anthropology	
ECON 1110G	Survey of Economics	
ECON 2110G	Macroeconomic Principles	
ECON 2120G	Microeconomic Principles	
GEOG 1120G	World Regional Geography	
or GEOG 113	Human Geography	
POLS 1120G	American National Government	
or POLS 1110G	Introduction to Political Science	
SOCI 1110G	Introduction to Sociology	
Area V: Humanities		
HIST 1110G	United States History I	
or HIST 1120	United States History II	
HIST 1150G	Western Civilization I	
or HIST 1160G	Western Civilization II	
Area VI: Creative and Fine Arts		
Area VII: Flexible 3 (General Education Elective)		
ENGL 2210G	Professional & Technical Communication	3
Technical Requirements		
INMT 133	Process Technology and Systems	4
INMT 134	Maintenance Principles	4
INMT 165	Equipment Processes	4
INMT 235	Mechanical Drives I	4
INMT 237	Hydraulics I	2
INMT 261	Pump Operations I	4
INMT 262	Piping Systems	2
INMT 263	Mechanical Drives II	4
INMT 264	Rigging	2
INMT 265	Hydraulics II	2

INMT 267	Pump Operations II	2
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
WELD 105	Introduction to Welding	3
Total Hours		**60**

1

Each course selected must be from a different area and students cannot take multiple courses in the same area.

2

See the General Education section of the catalog for a full list of courses.

3

MATH 1130G Survey of Mathematics is required for the degree but students may need to take any prerequisites needed to enter MATH 1130G first.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
INMT 133	Process Technology and Systems	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
ENGL 1110G	Composition I	4
Area IV: Social/Behavioral Sciences Course [1]		3
	Hours	**16**
Spring		
INMT 134	Maintenance Principles	4
INMT 165	Equipment Processes	4
ENGL 2210G	Professional & Technical Communication	3
MATH 1130G	Survey of Mathematics [2]	3
	Hours	**14**
Second Year		
Fall		
INMT 235	Mechanical Drives I	4
INMT 237	Hydraulics I	2
INMT 261	Pump Operations I	4
INMT 262	Piping Systems	2
Area V: Humanities Course [3]		3
	Hours	**15**
Spring		
INMT 263	Mechanical Drives II	4
INMT 264	Rigging	2
INMT 265	Hydraulics II	2
INMT 267	Pump Operations II	2
MAT 265	Special Topics	2
WELD 105	Introduction to Welding	3
	Hours	**15**
	Total Hours	**60**

INMT 205	Programmable Logic Controllers and Applications	4
	Hours	**17**
	Total Hours	**30**

1

Area IV: Social/Behavioral Sciences Courses:
- ANTH 1115G Introduction to Anthropology
- ECON 1110G Survey of Economics, ECON 2110G Macroeconomic Principles, or ECON 2120G Microeconomic Principles
- GEOG 1120G World Regional Geography or GEOG 1130G Human Geography
- POLS 1120G American National Government or POLS 1110G Introduction to Political Science
- SOCI 1110G Introduction to Sociology

2

MATH 1130G Survey of Mathematics is required for the degree but students may need to take any prerequisites needed to enter MATH 1130G first.

3

Area V: Humanities Courses
- HIST 1110G United States History I or HIST 1120G United States History II
- HIST 1150G Western Civilization I or HIST 1160G Western Civilization II

Industrial Maintenance Technology Electrical - Certificate

Code	Title	Hours
Technical Requirements		
ENGL 1110G	Composition I	4
INMT 133	Process Technology and Systems	4
INMT 134	Maintenance Principles	4
INMT 205	Programmable Logic Controllers and Applications	4
MAT 130	Applied Industrial Electricity I	4
OEET 120	Basic Motor Controls	5
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
Total Hours		**30**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
INMT 133	Process Technology and Systems	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
MAT 130	Applied Industrial Electricity I	4
	Hours	**13**
Spring		
OEET 120	Basic Motor Controls	5
INMT 134	Maintenance Principles	4
ENGL 1110G	Composition I	4

Industrial Maintenance Technology Mechanical - Certificate

Code	Title	Hours
Technical Requirements		
ENGL 1110G	Composition I	4
INMT 133	Process Technology and Systems	4
INMT 134	Maintenance Principles	4
INMT 235	Mechanical Drives I	4
INMT 237	Hydraulics I	2
INMT 263	Mechanical Drives II	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
WELD 105	Introduction to Welding	3
Total Hours		**30**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
INMT 133	Process Technology and Systems	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
INMT 235	Mechanical Drives I	4
INMT 237	Hydraulics I	2
	Hours	**15**
Spring		
INMT 134	Maintenance Principles	4
ENGL 1110G	Composition I	4
INMT 263	Mechanical Drives II	4
WELD 105	Introduction to Welding	3
	Hours	**15**
	Total Hours	**30**

Instrumentation and Control Technology

- Instrumentation and Control Technology - Certificate of Completion (p. 140)

Instrumentation and Control Technology - Certificate of Completion

The Instrumentation and Control technology program combines the theory and the hands-on training of state-of-the-art analog and digital instrumentation and measurements used in modern control technologies. Students learn to install, test, calibrate and maintain instrumentation that measure, indicate and control variables such as pressure, flow, level, density, temperature, force, vibration and chemical composition. Students apply mathematics and physics disciplines aligned with industrial standards in realistic situations encountered airing their career. In addition to employ their outcomes in updating, building, and modifying as required different control technologies to overcome any obstacle in the system functionality.

Code	Title	Hours
Technical Requirements		
ENGL 1110G	Composition I	4
INST 133	Process Technology and Systems	4
INST 165	Equipment Processes	4
INST 205	Programmable Logic Controllers and Applications	4
INST 251	Instrumentation and Measurement	5
OEET 110	Basic Electricity and Electronics	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
Total Hours		**30**

Course	Title	Hours
First Year		
Fall		
INST 133	Process Technology and Systems	4
INST 251	Instrumentation and Measurement	5
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
	Hours	14
Spring		
ENGL 1110G	Composition I	4
INST 165	Equipment Processes	4
INST 205	Programmable Logic Controllers and Applications	4
OEET 110	Basic Electricity and Electronics	4
	Hours	16
	Total Hours	30

Manufacturing Technology

The **Manufacturing Technology** program prepares students for entry-level technician positions in the construction, mining, and manufacturing industries.

The program contains two options sharing a common core curriculum. The Electronic Assembly option stresses computer, drafting, electrical, and mechanical skills, while the Manufacturing Processes option stresses application of those skills to computer-aided drafting (CAD), computer-aided manufacturing (CAM), and computer numerically controlled (CNC) machining systems. Training is conducted in a conventional machining laboratory, a state-of-the-art CAM and robotics laboratory, and modern CAD labs. Experienced manufacturing professionals provide the highest quality instruction in a "hands on" environment.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

E T 101 Introduction to Engineering Technology and Geomatics 1 Credit (1)
An introduction to geomatics and the various engineering technology disciplines, the engineering approach to problem solving, and the design process. Projects emphasize the importance of teamwork, written & oral communication skills, as well as ethical responsibilities.
View Course Outcomes

E T 104 Soldering Techniques 1 Credit (1)
Fundamentals of soldering, desoldering, and quality inspection of printed circuit boards. (3P)
View Course Outcomes

E T 109 Computer Drafting Fundamentals 3 Credits (3)
Introduction to principles and fundamentals of drafting using both manual drawing techniques and computer-aided drafting (CAD) applications. (3+2P)
Repeatable: up to 3 credits
Crosslist: DRFT 109 and C E 109
View Course Outcomes

E T 110 Introduction to 3-D Modeling (Solid Works) 3 Credits (3)
Introduction to SolidWorks, a 3-D modeling software. The foundation for designing mechanical parts and assemblies. (2+3P)
View Course Outcomes

E T 120 Computation Software 2-3 Credits
The use of spreadsheet software in the field of engineering technology.
View Course Outcomes

E T 125 Introduction to Renewable Energy 3 Credits (3)
Renewable energy systems, including topics in thermal-solar photovoltaic, wind, geothermal systems, and other current topics. Theory, practical applications, safety considerations and the economics of alternative renewable energy systems compared to conventional systems.
View Course Outcomes

E T 143 Civil/Survey Drafting I 3 Credits (3)
Introduction to drafting in the field of Civil Engineering. Drawings, projects, and terminologies related to topographic mapping, contour drawings, plan, and profiles as street/highway layout. (2+2P)
Prerequisite(s): A grade of C- or better in E T 109 or DRFT 109
Repeatable: up to 3 credits
View Course Outcomes

E T 153 Fundamentals of Networking Communications 3 Credits (3)
Introduction to networking basics, including computer hardware and software, electricity, networking terminology, protocols, LANs, WANs, OSI model, IP addressing, and design and documentation of basic network and structure cabling.
View Course Outcomes

E T 154 Construction Methods and Communications 3 Credits (3)
Blueprint reading, specifications, and introduction to materials used in construction.
View Course Outcomes

E T 155 Network Operating Systems I 3 Credits (3)
Introduction to a computer network operating system. (3+1P).
Prerequisite(s): E T 120 or E T 122
View Course Outcomes

E T 156 Introduction to Information Security 2 Credits (2)
This course introduces information security terminology, historical evolution of digital security, types of PC and network system vulnerabilities and types of information loss. In addition, methods of information protection and integrity, intrusion detection, and recovery of data are introduced.
Prerequisite(s)/Corequisite(s): E T 120
View Course Outcomes

E T 160 Windows Fundamentals for IET 3 Credits (3)
Fundamental review of the Windows operating system including installation and upgrades as well as managing applications, files, folders, devices and maintenance.
View Course Outcomes

E T 182 Digital Logic 2 Credits (2)
The use of truth tables, Boolean equations, and diagrams to define, simplify, and implement logic-valued functions. (1+2P).
Prerequisite(s): A grade of C- or better in MATH 1220G or higher
View Course Outcomes

E T 183 Applied DC Circuits 3 Credits (3)
Application of Ohm's law, Kirchhoff's laws, Thevenin's, and Norton's theorems to the analysis of DC passive circuits. Embedded Lab. (2+2P).
Prerequisite(s)/Corequisite(s): MATH 1220G
View Course Outcomes

E T 183L Applied DC Circuits Lab 1 Credit (1)
DC applied circuits lab. (2P).
Corequisite(s): E T 183
View Course Outcomes

E T 184 Applied AC Circuits 1-4 Credits
Application of circuit laws and theorems to analysis of AC passive circuits. Resonant circuit, polyphase circuit and magnetic circuit topics are introduced. Embedded Lab. (2+2P).
Prerequisite(s): A grade of C- or better in ENGR 120
View Course Outcomes

E T 190 Applied Circuits 4 Credits (4)
Application of Ohm's law, Kirchhoff's laws, and Thevenin's theorems to the analysis of AC and DC passive circuits. Electronic circuit topics are introduced. Embedded lab. (3+2P)
Prerequisite(s)/Corequisite(s): A grade of C- or better in MATH 1250G or higher
Repeatable: up to 4 credits
View Course Outcomes

E T 191 Applied Circuits Laboratory 1 Credit (1)
Applied Circuits Lab. (2P)
View Course Outcomes

E T 200 Special Topics 1-6 Credits
Directed study or project.
Repeatable: for a maximum of 6 credits
View Course Outcomes

E T 210 Intermediate 3-D Modeling (Solid Works) 3 Credits (3)
Intermediate 3-D modeling. Applied modeling of techniques to prepare for SolidWorks certification (CSWA).
Prerequisite(s): A grade of C- or better in ENGR 110
View Course Outcomes

E T 217 Manufacturing Processes 3 Credits (3)
Introduction to manufacturing and processing, including: casting, forming, and machining. Emphasis on creating products with the appropriate techniques.
Prerequisite(s): E T 110 and MATH 1220G
Crosslist: I E 217
View Course Outcomes

E T 217L Manufacturing Processes Lab 1 Credit (1)
Hands-on laboratory in machine shop to apply topics from E T 217, including: casting, forming, and machining. (3P)
Corequisite(s): E T 217
View Course Outcomes

E T 220 Internship 1-6 Credits
Internship requiring an approved number of hours of varied and progressive experience in the field of study. The scope and other requirements of the internship are stated in an individualized syllabus and through a memorandum of understanding between the faculty mentor and the industry partner.
Prerequisite(s): E T 283
Repeatable: up to 6 credits
View Course Outcomes

E T 240 Applied Statics 3 Credits (3)
Fundamental topics of applied statics, including force system analysis, equilibrium, free body diagrams, methods of joints and sections, distributed loads, friction, centroids, area moments, and shear and moment diagrams.
Prerequisite(s): PHYS 1230G or PHYS 1310G
Prerequisite(s)/Corequisite(s): MATH 1430G or MATH 1511G
View Course Outcomes

E T 241 Applied Dynamics 3 Credits (3)
The foundation for understanding particles and bodies in motion and the forces involved, including: projectile motion, Newton's Laws of Motion, conservation of energy, and impulse and momentum.
Prerequisite(s): A grade of C- or better in either E T 240 or ENGR 233
Prerequisite(s)/Corequisite(s): (MATH 1440 or MATH 1521G or MATH 1521H)
View Course Outcomes

E T 246 Electronic Devices I 4 Credits (4)
Solid-state devices including diodes, bipolar-transistors, and field effect transistors. Use of these devices in rectifier circuits, small signal and power amplifiers. (3+3P)
Prerequisite(s): A grade of C- or better in one of the following: E T 190 or E T 184 or ENGR 120
View Course Outcomes

E T 253 Networking Operating Systems II 3 Credits (3)
Introduction to a computer network operating system. (3+3P)
Prerequisite(s): E T 120 and E T 153
View Course Outcomes

E T 254 Concrete Technology 3 Credits (3)
Fundamentals of aggregates, Portland cement, and asphalt used in design and construction. (2+2P)
View Course Outcomes

E T 255 Linux System Administration 3 Credits (3)
Operating systems applications and interfacing with an introduction to systems administration. Topics include Shell Programming, Programming Tools, Database Management, System Backups, Security, Setup and Maintenance of Linux Servers.
View Course Outcomes

E T 256 Networking Operating Systems III 3 Credits (3)
Introduction to a computer network operating system. (3+1P)
Prerequisite(s): E T 253
View Course Outcomes

E T 262 Software Technology I 3 Credits (3)
An introduction to computer programming concepts as applied to engineering technology. Includes basic logic design, algorithm development, debugging and documentation. History and use of computers and their impact on society. (2+2P)
Prerequisite(s)/Corequisite(s): (E T 182 or ENGR 130) or (MATH 1250G or MATH 1430G)
View Course Outcomes

E T 272 Electronic Devices II 4 Credits (4)
Operational amplifiers, positive and negative feedback, computer aided circuit analysis. In addition circuits include integrator, differentiators and phase shift networks. (3+3P).
Prerequisite(s): A grade of C- or better in E T 246
Prerequisite(s)/Corequisite(s): MATH 1435 or MATH 1511G
View Course Outcomes

E T 273 Advanced Networking Communications 4 Credits (4)
Explores advanced networking communications to include Wireless Networking, Virtualization and Cloud Computing, Subnets and VLANs, Network Risk Management, Network Security Design, Network Performance, and WANS. The course covers the examination objectives and detailed preparation for students to take the CompTIA Network+ exam. (2+4P)
Prerequisite(s): E T 153
View Course Outcomes

E T 276 Electronic Communications 3 Credits (3)
Antennas, transmission devices, A-M and F-M transmission and detection, pulse systems, microwave systems. (2+2P)
Prerequisite(s): E T 246
View Course Outcomes

E T 280 Web Design and Multimedia 3 Credits (3)
Introduction to front-end web development including webpage design, structure, layout, positioning, responsiveness, and foundational layers of how the web works. Video, audio, and other digital presentation tools are covered.
View Course Outcomes

E T 282 Digital Electronics 4 Credits (4)
Applications of digital integrated circuits, multiplexers, counters, arithmetic circuits, and microprocessors. (3+3P).
Prerequisite(s): E T 182
Prerequisite(s)/Corequisite(s): (E T 190 or E T 184)
View Course Outcomes

E T 283 Hardware PC Maintenance 3 Credits (3)
Installing, configuring, troubleshooting, and maintaining personal computer hardware components. (3+1P)
Prerequisite(s): E T 120
View Course Outcomes

E T 284 Software PC Maintenance 3 Credits (3)
Installing, configuring, troubleshooting, and maintaining personal computer operating systems. (3+1P)
Prerequisite(s): E T 120
View Course Outcomes

E T 285 Advanced Information Security 3 Credits (3)
The course covers detailed analysis of network security, including security operations and policy adherence; internal and external vulnerabilities; methods of identifying, controlling and managing system access, and the protection of system information.
Prerequisite(s): E T 156
Prerequisite(s)/Corequisite(s): E T 283
View Course Outcomes

E T 286 Information Security Certification Preparation 4 Credits (4)
The course covers the examination objectives and detailed preparation for a certification in information security.
Prerequisite(s): E T 285
View Course Outcomes

E T 290 Networking Wireless Communication 3 Credits (3)
This course provides an introduction to wireless networking and communications. Some of the topics covered are protocols, transmission methods, and IEEE 802.11 standards. Wireless LAN (WLAN) fundamentals, devices, and security, cellular telephony, broadband, and satellite communications. (3+1P)
Prerequisite(s): E T 273
View Course Outcomes

E T 291 PC Forensics and Investigation 3 Credits (3)
Introduction to computer forensics and investigative fundamentals. Topics include understanding computer forensic and investigation law and requirements, processing crime and incident scenes, and the extraction, preservation, analysis and presentation of computer-related evidence.
Prerequisite(s): E T 120 or E T 122
View Course Outcomes

Manufacturing Technology Electronics Assembly - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60-63 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V, and VI [1]		19-21
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement)	
Area II: Mathematics		
Area III: Laboratory Science		

Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Technical Requirements		
BUSA 1110	Introduction to Business	3
or ACCT 2120	Principles of Accounting II (Managerial)	
ENGL 2210G	Professional & Technical Communication	3
E T 120	Computation Software	2
E T 182	Digital Logic	2
E T 183	Applied DC Circuits	3
E T 183L	Applied DC Circuits Lab	1
E T 184	Applied AC Circuits	3
E T 200	Special Topics	3
E T 246	Electronic Devices I	4
E T 272	Electronic Devices II	4
E T 282	Digital Electronics	4
Electives		**9**
Approved E T Elective		
Total Hours		**60-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Courses is a Technical Requirement and must be taken regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
Approved E T Elective		4
E T 120	Computation Software	2
E T 183 & 183L	Applied DC Circuits and Applied DC Circuits Lab	4
ENGL 1110G	Composition I (Area I: Communications)	4
	Hours	**14**
Spring		
Approved E T Elective		4
E T 184	Applied AC Circuits	3
PSYC 1110G or SOCI 1110G	Introduction to Psychology (Area IV: Social/Behavioral Sciences) or Introduction to Sociology	3
Approved E T Elective		4
	Hours	**14**
Summer		
Area III: Laboratory Science		4
	Hours	**4**
Second Year		
Fall		
E T 246	Electronic Devices I	4
ENGL 2210G	Professional & Technical Communication (Area VII: Flexible 3 (General Education Elective))	3

E T 200	Special Topics	3
E T 182	Digital Logic	2
	Hours	**12**
Spring		
Approved E T Elective		3
E T 272	Electronic Devices II	4
E T 282	Digital Electronics	4
BUSA 1110 or ACCT 2120	Introduction to Business or Principles of Accounting II (Managerial)	3
Choose course from Area II, V, or VI		3
	Hours	**17**
	Total Hours	**61**

[1]

Each course selected must be from a different area and students cannot take multiple courses in the same area.

[2]

See the General Education section of the catalog for a full list of courses.

Manufacturing Technology Manufacturing Processes - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 61-64 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V, and VI. [1]		19-21
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [2]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VII: Flexible 3 (General Education Elective)		
Area VI: Creative and Fine Arts		
Technical Requirements		
BUSA 1110	Introduction to Business	3
or ACCT 2120	Principles of Accounting II (Managerial)	
ENGL 2210G	Professional & Technical Communication	3
E T 120	Computation Software	2
E T 183	Applied DC Circuits	3
E T 183L	Applied DC Circuits Lab	1
E T 184	Applied AC Circuits	3
E T 200	Special Topics	3
E T 217	Manufacturing Processes	3
E T 217L	Manufacturing Processes Lab	1
Electives		**20**
Approved E T Elective		
Total Hours		**61-63**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit accepted.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
Approved E T Elective		3
E T 120	Computation Software	2
E T 183 & 183L	Applied DC Circuits and Applied DC Circuits Lab	4
ENGL 1110G	Composition I (Area I: Communications)	4
	Hours	**13**
Spring		
Approved E T Elective		4
E T 184	Applied AC Circuits	3
PSYC 1110G or SOCI 1110G	Introduction to Psychology (Area IV: Social/ Behavioral Sciences) or Introduction to Sociology	3
Courses required from Area II, V, or VI		3
	Hours	**13**
Summer		
ENGL 2210G	Professional & Technical Communication (Area VII: Flexible 3 (General Education Elective))	3
	Hours	**3**
Second Year		
Fall		
Approved E T Elective		3
Approved E T Elective		2
E T 200	Special Topics	3
E T 217 & 217L	Manufacturing Processes and Manufacturing Processes Lab	4
Approved Elective		3
	Hours	**15**
Spring		
Approved E T Elective		2
Approved E T Elective		4
Approved E T Elective		4
BUSA 1110 or ACCT 2120	Introduction to Business or Principles of Accounting II (Managerial)	3
Area III: Laboratory Science [1, 2]		3-4
	Hours	**16-17**
	Total Hours	**60-61**

[1]

Each course selected must be from a different area and students cannot take multiple courses in the same area.

[2]

See the General Education section of the catalog for a full list of courses.

Medical Assistant

The **Medical Assistant (MA) Certificate** program prepares students in three semesters (one full academic year) to be workforce ready and serve the community as well-trained Medical Assistants. It provides students the opportunity to go directly into the workforce or apply their hands-on experience from this program to pursuing additional career pathways within the health and medical field. This program provides students the training necessary to complete a wide range of both clinical skills and medical office administrative tasks in both ambulatory and acute care settings.

Upon completing the Medical Assistant certificate of completion, students qualify to become certified Medical Assistants through NCCT (National Center for Competency Testing).

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Medical Assistant - Certificate of Completion (p. 144)

Medical Assistant - Certificate of Completion

The Medical Assistant Certificate program prepares students to sit for the NCCT Medical Assistant Certification exam and gain employment as entry-level Medical Assistants in physicians' offices and medical facilities.

Code	Title	Hours
Technical Requirements		
AHS 140	Essentials of Anatomy and Physiology	4
AHS 190	Clinical Skills & Concepts for Medical Assisting I (All other courses must be completed prior to taking this course.)	6
HIT 120	Health Information Introduction to Pharmacology	3
HIT/NURS/OATS 150	Introduction to Medical Terminology	3
NA 101	Nursing Assistant Theory and Lab	6
NA 115	Phlebotomist Technician	6
OATS 208	Medical Office Procedures	3
Total Hours		**31**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
AHS 140	Essentials of Anatomy and Physiology	4
HIT/NURS/OATS 150	Introduction to Medical Terminology	3
NA 115	Phlebotomist Technician	6

OATS 208	Medical Office Procedures	3
	Hours	**16**
Spring		
AHS 190	Clinical Skills & Concepts for Medical Assisting I	6
HIT 120	Health Information Introduction to Pharmacology	3
NA 101	Nursing Assistant Theory and Lab	6
	Hours	**15**
	Total Hours	**31**

Natural Gas Compression Technology

The **Natural Gas Compression Associate of Applied Science Degree** is a program that provides the technical basics and knowledge of gas compression procedures, skills, maintenance, and the use of equipment to prepare for entry-level employment, it covers the safety procedures in the workplace, troubleshooting, repairing and operating the natural gas engines and relative materials.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. Individual academic programs may have additional requirements.

- Natural Gas Compression Technology - Associate of Applied Science (p. 145)
- Natural Gas Compression Technology - Certificate of Completion (p. 146)

Natural Gas Compression Technology - Associate of Applied Science

Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, IV, V, and VII [1]		16
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [2]	
Area II: Mathematics [1]		
Area IV: Social/Behavioral Sciences [3]		
Area V: Humanities		
HIST 1110G	United States History I (Technical Requirement) [2]	
Area VII: Flexible 3 (General Education Elective)		
ENGL 2210G	Professional & Technical Communication (Technical Requirement) [2]	
Technical Requirements		
HIST 1120G	United States History II	3
INMT 237	Hydraulics I	2
INMT 165	Equipment Processes	4

INMT 205	Programmable Logic Controllers and Applications	4
NGEC 133	Natural Gas Engine Repair Technology	5
NGEC 175	Natural Gas Compressions Technology I	4
NGEC 245	Natural Gas Engine Management and Control Technology	5
NGEC 185	Natural Gas Compression Technology II	4
NGEC 246	Fuel and Emissions Technology	5
OEET 110	Basic Electricity and Electronics	4
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
Total Hours		**61**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

[3]

The Area IV courses that are recommended for this degree:
- ANTH 1115G Introduction to Anthropology
- ECON 1110G Survey of Economics
- ECON 2110G Macroeconomic Principles
- ECON 2120G Microeconomic Principles
- GEOG 1120G World Regional Geography
- GEOG 1130G Human Geography
- POLS 1120G American National Government
- POLS 1110G Introduction to Political Science
- SOCI 1110G Introduction to Sociology

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
INMT 237	Hydraulics I	2
ENGL 1110G	Composition I (Area I: Communications)	4
Area IV: Social/Behavioral Sciences Course [1]		3
	Hours	**14**
Spring		
OEET 110	Basic Electricity and Electronics	4
INMT 165	Equipment Processes	4
ENGL 2210G	Professional & Technical Communication (Area VII: Flexible 3 (General Education Elective))	3
NGEC 133	Natural Gas Engine Repair Technology	5
	Hours	**16**
Second Year		
Fall		
INMT 205	Programmable Logic Controllers and Applications	4
NGEC 175	Natural Gas Compressions Technology I	4

NGEC 245	Natural Gas Engine Management and Control Technology	5
HIST 1110G	United States History I (Area V: Humanities)	3
HIST 1120G	United States History II	3
	Hours	**19**
Spring		
NGEC 185	Natural Gas Compression Technology II	4
NGEC 246	Fuel and Emissions Technology	5
Area II: Mathematics [1]		3-4
	Hours	**12-13**
	Total Hours	**61-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

The Area IV courses that are recommended for this degree:

- ANTH 1115G Introduction to Anthropology
- ECON 1110G Survey of Economics
- ECON 2110G Macroeconomic Principles
- ECON 2120G Microeconomic Principles
- GEOG 1120G World Regional Geography
- GEOG 1130G Human Geography
- POLS 1120G American National Government
- POLS 1110G Introduction to Political Science
- SOCI 1110G Introduction to Sociology

Natural Gas Compression Technology - Certificate of Completion

The **Natural Gas Compression Certificate** is a program that provides the technical basics and knowledge of gas compression procedures, skills, maintenance, and the use of equipment to prepare for entry-level employment. It covers the safety procedures in the workplace, troubleshooting, repairing and operating the natural gas engines and related materials.

Code	Title	Hours
OETS 100	Industrial/Construction Safety	2
OETS 118	Mathematics for Technicians	3
INMT 205	Programmable Logic Controllers and Applications	4
NGEC 175	Natural Gas Compressions Technology I	4
OEET 110	Basic Electricity and Electronics	4
INMT 165	Equipment Processes	4
NGEC 133	Natural Gas Engine Repair Technology	5
ENGL 1110G	Composition I	4
Total Hours		**30**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
OETS 100	Industrial/Construction Safety	2

OETS 118	Mathematics for Technicians	3
INMT 205	Programmable Logic Controllers and Applications	4
NGEC 175	Natural Gas Compressions Technology I	4
	Hours	**13**
Spring		
OEET 110	Basic Electricity and Electronics	4
INMT 165	Equipment Processes	4
ENGL 1110G	Composition I	4
NGEC 133	Natural Gas Engine Repair Technology	5
	Hours	**17**
	Total Hours	**30**

Nursing

The nursing curriculum of Southeast New Mexico College prepares students for beginning nursing practice in a variety of health care settings. The program is approved by the State Board of Nursing, and the Applied Associate Degree in Nursing is accredited by the Accreditation Commission for Education in Nursing (ACEN). Questions regarding accreditation should be directed to ACEN to:

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326
(404) 975-5000

Fax (404) 975-5020

email: info@acenursing.org

www.acenursing.org (http://www.acenursing.org)

Upon completion of the **Certificate for Practical Nursing,** graduates are eligible to write the National Council Licensure Exam (NCLEX-PN) which leads to licensure as a Practical Nurse. Upon completion of the **Applied Associate Degree in Nursing,** graduates are eligible to write the National Council Licensure Exam (NCELX-RN) that leads to licensure as a Registered Nurse.

Please note that certain felonious convictions may prohibit graduates from writing the NCLEX-RN in New Mexico. Students considering application to the nursing program who have any prior felony convictions should contact the appropriate Board of Nursing through which they intend to seek licensure prior to making application to this program. Graduates licensed as registered nurses in New Mexico do not meet licensure requirements in North Dakota.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC. A minimum of 12 credits earned toward the certificate must be completed at SENMC.

Program Entrance Requirements

- BIOL 2210 Human Anatomy and Physiology I for the Health Sciences
- CHEM 1120G Introduction to Chemistry Lecture and Laboratory (non majors).
- NA 101 Nursing Assistant Theory and Lab

- Completion of developmental studies English, math and reading as indicated by the student's placement test results if needed
- Cumulative GPA of 2.75 or higher in courses applicable to the nursing curriculum
- HESI A2 composite score of 75% and 60% in each subject area: Math, Reading Comprehension, Vocabulary and General Knowledge, Grammar, and Anatomy & Physiology
- Submission of a program application packet by **May 15.** Packets are available in the Nursing Administration Office in the Allied Health Building and online at senmc.edu (http://www.senmc.edu/)
- Science courses repeated more than twice will not be considered for admission requirements.

Courses from other nursing programs are evaluated by the Nursing Program Director; call (575) 234-9300 to inquire. Evaluation of non-nursing credits are processed by the registrar's office.

Curriculum Notes

- All courses that are part of the nursing curriculum must be completed with a C- or higher.
- Students must be formally accepted into the nursing program to enroll in courses listed under "Nursing Program Requirements."
- CHEM 1120G Introduction to Chemistry Lecture and Laboratory (non majors) may not be used to fulfill elective credit. Note that CHEM 1120G Introduction to Chemistry Lecture and Laboratory (non majors) is required for the BSN degree at NMSU Las Cruces.
- NURS 210 Pharmacological Requisites of the Childbearing Family is not required for the LPN option. However, if this course is not taken and the student decides not to exit at the LPN level and wants to continue in the associate degree, the student must take NURS 210 Pharmacological Requisites of the Childbearing Family (offered only in the spring) before progressing to the second year of nursing.
- Some out of state travel is required for certain clinical experiences.

Essential Eligibility Requirements

The following essential requirements and examples of necessary activities (not all inclusive) should be used to assist each applicant in determining whether accommodations or modifications are necessary.

Essential Function	Example of Necessary Activities
Critical thinking abilities sufficient for clinical judgment.	Identify cause/effect relationships in clinical situation; develop nursing care plans.
Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds.	Establish rapport with patients/families and colleagues.
Communication abilities sufficient for interactions with others in verbal and written form.	Explain treatment procedures, initiate health teaching, document and interpret nursing actions and patient/client responses.
Abilities sufficient to move from room to room and to maneuver in small places.	Move around in patients' rooms, work spaces, and treatment areas, and administer cardio-pulmonary procedures.
Abilities sufficient to provide safe and effective nursing care.	Calibrate and use equipment; position patients/clients.
Abilities sufficient to monitor and assess health needs.	Hear monitor alarms, emergency signals, auscultatory sounds and cries for help.
Abilities sufficient for observation and assessment necessary in nursing care.	Observe patient/client responses.
Abilities sufficient for physical assessment.	Perform palpation, functions of physical examination and/or those related to therapeutic intervention, e.g. insertion of a catheter.
Ability to operate under stressful situations.	Perform within a crisis situation providing care to meet physical, emotional, or psychosocial needs of the patient/client.

ADA Guidelines apply to all qualified disabled persons. A qualified disabled person is a person with a disability who, with or without reasonable modification to rules, policies, or practices, and with the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services, or the participation in the programs or activities provided by a public entity **and** who can perform the "essential functions" of the position. Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the appropriate program chair as soon as possible to make necessary accommodations. Students should be prepared to present a disability verification form from their physician.

NURS 120 Introduction to Pharmacology 3 Credits (3)
General principles of pharmacology including methods of administration, effect on the body, interactions with other drugs, and classification of drugs. Focus on the health care provider's role in safe pharmacologic intervention.
Repeatable: up to 3 credits
Crosslist: HIT 120
Learning Outcomes
1. Have advanced knowledge and understanding of medical terms.
2. Prepared for a career in the healthcare field.
3. State the derivation of most health care terms.
4. Use the rules given to build and spell healthcare terms and build singular terms to their plural form.
5. Recognize and recall an introductory word bank of prefixes, suffixes, and combining forms of their respective meanings.
6. Recognize and use terms related to the anatomy, physiology and procedures for the various body systems.

View Course Outcomes

NURS 130 Foundations of Pharmacology 3 Credits (3)
This course provides the nursing student with an introduction to the foundations of pharmacology including: science of drug action, principles of medication administration, accurate calculation of drug doses, medication therapy across the lifespan, application of medications to treat health alterations, normal and adverse responses by the client to medication therapy, medication safety, medication regulation, national patient safety goals, and appropriate nursing interventions to achieve the desired goals of medication therapy. Only students who have been admitted to the nursing program may enroll in this course. Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 147 & NURS 149
View Course Outcomes

NURS 134 Foundation of Nursing Skills and Assessment 3 Credits (3)
This course provides nursing students with introductory nursing knowledge related to performance of nursing skills and assessment including: techniques of fundamental nursing care, basic and intermediate nursing skills, and foundational physical assessment techniques associated with care across the lifespan. Open to students who have been accepted into the nursing program. (1+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 136 & NURS 137 or permission of the Program Director
View Course Outcomes

NURS 136 Foundations of Nursing Practice 6 Credits (6)
This course will introduce the nursing student to foundational theoretical concepts of professional nursing practice, the nursing process, and foundational nursing skills. It includes developmental concepts related to clients across the lifespan. Clinical experiences in the simulation lab, long-term care, the community, and rehabilitation settings will provide the student with the opportunity to apply learned skills to provide total care to meet needs of one adult client and to develop care planning skills related to actual problems. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 134, NURS 137
View Course Outcomes

NURS 137 Care of Geriatric Patient 3 Credits (3)
This course will introduce the nursing student to foundational concepts of age-appropriate/specific care of the older adult who represents the largest population of individuals placing demands on the healthcare system. It includes basic and complex concepts and issues related to care of the older client across the care continuum, provision of cost-effective care in a resource sparse environment. Only students who have been admitted to the nursing program may enroll in this course. Students must be admitted into the nursing program to enroll in this course. NURS majors.
Corequisite(s): NURS 134 & NURS 136
View Course Outcomes

NURS 140 Pathophysiology for Allied Health Professionals 3 Credits (3)
Introduction to the nature of disease and its effect on body systems. Deals with the disease processes affecting the human body via an integrated approach to specific disease entities. 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, complication, treatment modalities, and prognosis. Restricted to Allied Health and Health Information Technology majors.
Learning Outcomes
1. Describe basic disease concepts, including mechanisms of disease, neoplasms, inflammation, and infection
2. Examine the basic anatomy and physiology of the body systems, etiology of various diseases and conditions, important signs and symptoms of disorders, common diagnostics, typical course and management of disorders, preventive measures, and the effects of aging
3. Identify the terminology, etiology, signs and symptoms, common diagnostics, typical course and management of disorders, and preventive measures associated with genetic and developmental disorders, childhood diseases, and mental health disorders
4. Recognize important medical terminology related to the understanding of human diseases
5. State the drug classifications and examples of medications in each class used to treat diseases, disorders and conditions related to each body system

View Course Outcomes

NURS 146 Common Health Deviations 6 Credits (6)
Common health deviations and the manner by which they alter various body functions are explored. The role of the licensed practical nurse in assisting clients with common health deviations is presented. Ethical and legal implications and the role of the practical nurse are also considered. The licensed practical nursing student will utilize the application of knowledge to client care situation both in the subacute and acute care settings. The nursing process is presented as guide for coordinating client care. Grade of C or better. Restricted to: NURSING majors. (4+6P)
Prerequisite(s): NURS 153, NURS 156, NURS 154, NURS 157, and NURS 210 or consent of program director
Repeatable: up to 6 credits
View Course Outcomes

NURS 147 Adult Health I 6 Credits (6)
This course focuses on application of the nursing process and theoretical concepts of care for adults with commonly occurring health problems. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to continue development of: prioritization skills, proficiency in performance of nursing skills, collaborative skills with clients, families, peers and health care team members, care planning skills related to patient actual, psychosocial, and potential problems in the delivery of total nursing care to meet needs of one adult client. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 130, NURS 147 lab, & NURS 149
View Course Outcomes

NURS 149 Mental Health Nursing 3 Credits (3)
This course will allow the nursing student to develop skills necessary to provide nursing care for clients with mental health problems in various health care settings including: common mental health disorders, psychosocial dysfunction, psychosocial safety/substance abuse issues, violence, suicide, restraints, developmental age related pathophysiology, psychopharmacology, cultural/religious considerations, grief/loss, promotion of mental health, and therapeutic communication. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to develop ability to develop: proficiency in performance of nursing skills, collaborative skills with clients, families, peers and health care team members, care planning skills related to patient actual, psychosocial, and potential problems in the delivery of total nursing care to meet needs of one client across the life span with acute/chronic mental health needs. Students must be concurrently enrolled in both the lecture and lab sections of this course. Only students who have been admitted to the nursing program may enroll in this course. (2+3P) Students must be admitted into the Nursing Program in order to enroll in the course. NUR majors.
Corequisite(s): NURS 130, NURS 147, & NURS 149L
View Course Outcomes

NURS 150 Medical Terminology 3 Credits (3)
Understanding of the basic elements of medical words. Use of medical abbreviations. Crosslisted with: BOT 150, AHS 120 and HIT 150.
Repeatable: up to 3 credits
Crosslist: OEHO 120 and BOT 150
Learning Outcomes
1. Demonstrate proficient interpretation of medical abbreviations
2. Explain the importance of utilizing medical terms/abbreviations in the medical field
3. Define medical terms correctly
4. Interpret medical language including roots, prefixes and suffixes
5. Pronounce medical terms correctly
6. Spell medical terms correctly

View Course Outcomes

NURS 153 Medication and Dosage Calculation 1 Credit (1)
Techniques of dosage calculation for medication and fluid administration. RR applicable. Students must meet SENMC basic skills requirement in mathematics to enroll in this course.
Corequisite(s): NURS 156 and NURS 154
Learning Outcomes
1. Utilize the nursing process, clinical judgment, evidenced based information and knowledge from the arts and sciences to provide safe client centered care.
2. Coordinate and collaborate effectively through verbal, nonverbal, and technological means with individuals, families and the interdisciplinary team.
3. Integrate accountability and responsibility for practice within the legal and ethical standards of the nursing profession.
4. Apply the principles of delegation, management and leadership in providing client centered care.
5. Participate in activities that promote professional development and personal growth.

View Course Outcomes

NURS 154 Physical Assessment 2 Credits (2)
Beginning techniques of physical assessment by systems will be presented using the nursing process as a guide for providing safe client centered care throughout the life span. Grade of C or better is required. Restricted to: NURSING majors.
Prerequisite(s): BIOL 1130 or BIOL 2210
Corequisite(s): NURS 153, NURS 156
Repeatable: up to 2 credits
Learning Outcomes
1. Discuss the purpose, guidelines, safety factors, and equipment necessary for performing a physical exam. (1, 4)
2. Discuss and demonstrate techniques necessary to facilitate communication to obtain a health history. (1, 2)
3. Identify and demonstrate correct documentation of each body system. (1)
4. Define ethical/legal implications as they relate to documentation and the physical assessment exam. (1, 3)
5. Identify and discuss the nutritional implications as they relate to the physical assessment exam. (1, 2)
6. Recognize key terms, exam techniques, and the anatomy and physiology on the assessment of each body system. (1)
7. Discuss developmental and cultural differences in performing a physical assessment. (1, 2)
8. Identify and discuss components of the nursing process focusing on assessment and beginning to recognize self-care deficits. (1)
9. Identify opportunities to promote self-care assessment within the physical exam. (1) 1
10. Identify methods by which airing behaviors facilitate the nurse-patient relationship in the performance of a physical assessment. (1, 5)

View Course Outcomes

NURS 155 Special Topics 2 Credits (2)
Specific subjects to be announced in the Schedule of Classes.
Learning Outcomes
1. Demonstrate the ability to organize their time to improve study habits.
2. Identify effective study strategies
3. Incorporate interventions into the plan of care while remaining aware of the cultural, spiritual and ethical needs of the client
4. Demonstrates skill in using client care technologies that support safe client care.
5. Demonstrate effective writing skills by using information systems.
6. Demonstrate clinical judgement and problem solving skills by utilizing the nursing process as a guide in providing nursing care and rationale to clients with simple health deviations

View Course Outcomes

NURS 156 Basic Nursing Theory and Practice 6 Credits (6)
Introduction to the nursing profession and the beginning skills of nursing practice as it relates to normalcy. The nursing process is presented as a means of guiding the student in providing safe client centered care. Ethical and legal aspects of nursing practice are also included. Basic clinical nursing skills will be presented and practiced in the nursing lab. The student will perform these skills with clients in an actual health care setting. Consent of Program Director requires. Restricted to: NURSING majors. (4+6P)
Corequisite(s): NURS 153, NURS 154
Repeatable: up to 6 credits
Learning Outcomes
1. Utilize the nursing process, clinical judgment, evidenced based information and knowledge from the arts and sciences to provide safe client centered care.
2. Coordinate and collaborate effectively through verbal, nonverbal, and technological means with individuals, families and the interdisciplinary team.
3. Integrate accountability and responsibility for practice within the legal and ethical standards of the nursing profession.
4. Apply the principles of delegation, management and leadership in providing client centered care.
5. Participate in activities that promote professional development and personal growth.

View Course Outcomes

NURS 157 Maternal/Child Health Deviations 8 Credits (8)
This course introduces the student to the concepts and principles of nursing care of the family from conception to adolescence. Utilizing the assessment, analyzing, planning, and implementation phases of the nursing process (the Care map), the student focuses on the supportive-educative nursing system to assist members of the family in meeting self-care requisites and how they are affected by the health deviations common to each developmental level beginning with conception and ending with adolescence. Knowledge gained in theoretical instruction is then applied to the patient care situation. After an introduction to the necessary clinical skills in the campus laboratory setting, students will participate in clinical experiences with the focus on the family from conception to adolescence. The assessment, analysis, planning, and implementation phases of the nursing process are emphasized as a tool to assist patients in meeting universal and developmental self-care requisites. Utilizing the nursing process, the student provides safe, client-centered care to diverse clients and families. Theoretical instruction is applied to client care situations. Students collaborate with clients, families, and the interdisciplinary team in meeting health care needs. Experiences may occur in the physician's office, local health department, day care centers, schools, or the hospital. Grade of C or better required. Restricted to: NURSING majors. (6+6P)
Prerequisite(s): NURS 156, NURS 153, and NURS 154
Corequisite(s): NURS 210
Learning Outcomes
1. Determine how values of clients, families and medical personnel impact the involvement of clients in their health care related to maternal/child and pediatric clients.
2. Implement individualized client care utilizing an evidenced based approach related to maternal/child and pediatric clients.
3. Choose health protection, health promotion, and disease prevention strategies in the care of maternal/child and pediatric clients.
4. Apply the scope, risk factors, physiologic processes, and clinical management strategies to maternal/child and pediatric clients.
5. Choose resources for continuity of client care related to maternal/child and pediatric clients.
6. Give examples of significant information to report to other disciplines.
7. Apply the principles of delegation in the provision of client care with maternal/child and pediatric clients.
8. Utilize evidenced based information to implement a plan of care and employ nursing interventions for maternal/child and pediatric clients.
9. Use the principles of ethical practice in the delivery of nursing care for maternal/child and pediatric clients. 1
10. Apply policies, procedures and standards of care related to maternal/child and pediatric in the provision of client care. 1
11. Apply nursing interventions to reduce risk of harm to self and others related to maternal/child and pediatric clients. 1
12. Choose available technology for delivery of nursing care related to maternal/child and pediatric clients.

View Course Outcomes

NURS 201 Special Topics 1 Credit (1)
Specific topics to be announced in the Schedule of Classes.
Prerequisite(s): admission to the nursing program
Repeatable: for a maximum of 10 credits
View Course Outcomes

NURS 209 Independent Study 1 Credit (1)
Individual studies to meet identified student needs.
Prerequisite(s): admission to the nursing program
Repeatable: for a maximum of 10 credits
View Course Outcomes

NURS 210 Pharmacological Requisites of the Childbearing Family 1 Credit (1)
Basic concepts of pharmacology including pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, and their relationship to nursing care will be discussed focusing on medications commonly utilized with the childbearing family. Medication classes to be discussed include labor and delivery, analgesic, vitamins, respiratory, gynecological, endocrine, and anti-microbial/anti-infective drugs. Grade of C or better required.
Prerequisite(s): NURS 153, NURS 154 and NURS 156
Corequisite(s): NURS 157
View Course Outcomes

NURS 211 Pharmacological Requisites of Simple Health Deviations 1 Credit (1)
Basic concepts of pharmacology including pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, and their relationship to nursing care are addressed focusing on medications related to the psychiatric, gastrointestinal, musculoskeletal, gynecological, hematological, and anti-neoplastic client. Grade of C or better required.
Prerequisite(s): BIOL 2210 and BIOL 2225 and NURS 153, NURS 154, NURS 156, NURS 157 and NURS 210
Corequisite(s): NURS 246 and NURS 258
Learning Outcomes
1. Identify and discuss each of the major classifications of drugs and drugs within the class, including the pharmacokinetics and pharmacodynamics involved for the following body systems: (PSLO: 1, 4) a. Central Nervous System b. Immune/Hematological c. Gastrointestinal d. Musculoskeletal

2. Discuss the relationship between the use of pharmaceuticals and the treatment of disease in clients with health deviations. (PSLO: 1, 2, 4)

3. Discuss the importance of client education as it relates to each classification of drug presented, especially in preventing drug-drug and food drug interactions. (PSLO: 1, 2)

4. Describe the role of the nurse in safe medication administration to clients with simple health deviations. (PSLO: 2, 3)

View Course Outcomes

NURS 212 Pharmacological Requisites of Complex Health Deviations 1 Credit (1)
Basic concepts of pharmacology including pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, and their relationship to nursing care is examined focusing on medications related to complex health deviations. Drug classes to be discussed include cardiovascular, renal, endocrine, and neurological. Grade of C or better required.
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 246, NURS 258, NURS 210 and NURS 211
Corequisite(s): NURS 256 and NURS 260
View Course Outcomes

NURS 224 Maternal Child Nursing 5 Credits (5)
This course provides the intermediate nursing student with an in-depth review of care of the childbearing woman, family structures and roles, and nursing care of the child from birth through adolescence. Emphasis includes the care of pre-partum, intra-partum and postpartum clients, the neonate and health deviations in pediatric clients. Clinical experiences in the simulation lab, the community, and acute care settings will provide the student with the opportunity to apply learned skills to provide total care to meet needs of up to two adult, neonatal, or pediatric clients and to apply care planning skills related to actual, psychosocial and potential problems. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+3P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 235, & NURS 236
View Course Outcomes

NURS 226 Adult Health II 6 Credits (6)
This course focuses on application of nursing process and theoretical concepts of care for adults with complex health alterations. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to apply: prioritization skills, maintain proficiency in performance of nursing skills, collaborative skills with clients, families, peers and health care team members, and care planning skills related to patient actual, psychosocial, and potential problems in the delivery of nursing care to meet needs of three adult clients. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 224 & NURS 235
View Course Outcomes

NURS 235 Nursing Leadership and Management 1 Credit (1)
This course introduces the intermediate nursing student to professional practice principles of nursing leadership and management including: health policy and politics, fiscal management & budgeting, conflict management, decision making, interdisciplinary practice, working with teams, roles in disaster planning and management, application of standards of care to risk management, organization of care delivery, health care systems, processes, and practice environments. Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 224,NURS 226
Repeatable: up to 1 credits
View Course Outcomes

NURS 236 Nursing Preceptorship - Adult Health III 6 Credits (6)

This course is the final course involving care of the patient with acute or chronic illness. It focuses on care of patients with complex or multi-system problems allowing the graduating nursing student to discuss and apply all the skills learned in previous nursing courses. After successfully passing the HESI exam, students have clinical practice with preceptor in various health care settings. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to: organize care of a group of clients, maintain proficiency in performance of nursing skills, collaborate with clients, families, peers and health care team members, and support care planning skills related to patient actual, psychosocial, and potential problems in the delivery of nursing care to meet needs of the preceptors group of clients. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program and have successfully completed all level 1, 2 and 3 nursing courses may enroll in this course. Clinical may include inpatient or outpatient care, days, evenings, nights, or weekend experiences. Students are required to work the preceptors assigned schedule. NCLEX Review must be done concurrently. Students must be admitted into the Nursing Program to enroll in this course. NUR majors. (2+12P)

Corequisite(s): NURS 201

View Course Outcomes

NURS 246 Health Deviations I 7 Credits (7)

Introduction to medical/surgical clients, whose health care needs are routine and predictable. Focus is on simple health deviations, including concepts relative to health promotion and maintenance. The nursing process is utilized to provide evidenced based, safe client centered care. Students are expected to apply clinical judgment, communicate and collaborate with clients and the interdisciplinary team in providing care for a group of two to three clients. Grade of C or better required. Restricted to: Nursing majors. (4+9p)

Prerequisite(s): NURS 153, NURS 156, NURS 154, NURS 157 and NURS 210

Corequisite(s): NURS 211, NURS 258

Repeatable: up to 7 credits

Learning Outcomes

1. Incorporate interventions into the plan of care while remaining aware of the cultural, spiritual and ethical needs of the client (1)

2. Utilize the beginning skills of interpersonal relations in establishing a therapeutic relationship with diverse clients and families. (2)

3. Demonstrates skill in using client care technologies that support safe client care. (2)

4. Demonstrate effective writing skills by using information systems and writing the entire nursing process at a level of 76% or better. (1)

5. Demonstrate clinical judgement and problem solving skills by utilizing the nursing process as a guide in providing nursing care and rationale to clients with simple health deviations (1)

6. Assist members of the interdisciplinary team in the planning of safe client care and evidence based practice outcomes for clients with simple health deviations. (1)

7. Operate within the ethical and legal responsibilities of nursing and society as they relate to the client with simple health deviations. (3)

8. Utilize knowledge from current research studies and evidence based practice applicable to the care of clients when assessing, analyzing, planning, implementing, and evaluating nursing care. (1).

9. Demonstrate behavior that reflects the values and ethics of the nursing profession. (3) a. Integrate the client's value system, culture, or religious beliefs while maintaining a non-judgmental attitude. b. Select to be respectful and courteous. c. Share compassion and empathy. d. Integrate therapeutic interpersonal skills. e. Integrate genuine concern for the client and his/her welfare. f. Select discharge planning as one method of preparing the client for self-care. g. Integrate the concepts of confidentiality and privacy at all times. h. Share a commitment and ownership to nursing. i. Promote safety and quality improvement as an advocate of nursing care. 1

10. Demonstrate knowledge of delegation, management, and leadership skills. (4)

View Course Outcomes

NURS 256 Health Deviations II 8 Credits (8)
Concepts and principles applied to clients with complex health deviations. Building upon knowledge gained in NURS 246, focus will be on acutely ill clients. The nursing process continues to serve as a guide to provide safe, client centered care. The student collaborates with the interdisciplinary team in all aspects of client care. Student experiences the role of the staff nurse under the guidance and direction of the nursing instructor. Grade of C or better required. Restricted to: Nursing majors. (6+12P)
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 210, NURS 211, NURS 246, and NURS 258.Corequisite(s): NURS 212, NURS 260
Repeatable: up to 8 credits
View Course Outcomes

NURS 258 Psychosocial Requisites: A Deficit Approach 3 Credits (3)
Nursing theory and practice as it relates to the care of the client experiencing psychosocial health deviations. The role of the nurse is discussed along with the ethical and legal aspects of care for the client with psychosocial disorders. Building upon the communication skills of listening and responding, the student develops the therapeutic skills of interpersonal relationships. Grade of C or better is required. Restricted to: Nursing majors. (2+3P)
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 210, and NURS 246
Corequisite(s): NURS 211, NURS 246
Repeatable: up to 3 credits
Learning Outcomes
1. Describe the effects of psychosocial deviations on the client's ability to maintain self-care (1,2)
2. Describe therapeutic communication and explain how to employ therapeutic interpersonal skills in the nurse-client relationship (1,2)
3. Analyze the influence of cultural elements on his/her attitudes and behaviors toward mental health and mental illness (1, 3)
4. Utilize the nursing process to assist client's experiencing psychosocial health deviations (1,4)
5. Identify nursing interventions to meet the safety needs of the client with a psychosocial health deviation (1,4)
6. Analyze the legal and ethical issues regarding the client with a psychosocial health deviation (3,5)

View Course Outcomes

NURS 260 Management of Patients with Health Deviations 2 Credits (2)
A capstone course to the nursing program in which principles in management and delegation to less prepared personnel is explored. A review of leadership roles, legal issues, quality initiatives, informatics and scope of practice is included. Preparation for the NCLEX is an integral portion of the course. Grade of C or better is required. Restricted to: Nursing majors.
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 210, NURS 211, NURS 246, and NURS 258
Corequisite(s): NURS 212, NURS 256
Repeatable: up to 2 credits
Learning Outcomes
1. Discuss nursing practice concepts relevant to the practice of professional nursing.
2. Evaluate principles of quality improvement and safety into nursing practice within healthcare organizations and systems.
3. Apply leadership concepts through the application of policies that apply to healthcare delivery.
4. Promote a culture of safety through anticipating and eliminating potentially harmful situations.
5. Collaborate in systems analysis when clinical errors or near misses occur to reduce harm, minimize blame, and encourage transparency.
6. Integrate evidence in determining best clinical practice.
7. Demonstrate basic knowledge of healthcare policy, finance, and regulatory environments, including local, state, national, and global healthcare trends.
8. Use an ethical framework to evaluate the impact of policies of healthcare, especially for venerable populations.

View Course Outcomes

NURS 1110 Pre-Nursing Freshman Seminar 1 Credit (1)
This Freshman seminar provides an introduction to the university and its resources, an orientation to the pre-nursing curriculum, and overview of concepts for professional nursing practice. Emphasis is placed on exploring the nurse's role as an integral member of the healthcare team across multiple contexts and settings, and developing a professional identity. Consent of Instructor required.
View Course Outcomes

Licensed Practical Nursing - Certificate of Completion

Code	Title	Hours
Core Curriculum Requirements		
BIOL 2210C	Human Anatomy and Physiology I Lecture & Laboratory	4
BIOL 2225C	Human Anatomy and Physiology II Lecture and Laboratory	4
CEPY 1120G	Human Growth and Behavior	3
ENGL 1110G	Composition I	4
PSYC 1110G	Introduction to Psychology	3
Nursing Program Requirements		
NURS 146	Common Health Deviations	6
NURS 153	Medication and Dosage Calculation	1
NURS 154	Physical Assessment	2

Course	Title	Hours
NURS 156	Basic Nursing Theory and Practice	6
NURS 157	Maternal/Child Health Deviations	8
Total Hours		**41**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Note: BIOL 2210 Human Anatomy and Physiology I for the Health Sciences and NA 101 Nursing Assistant Theory and Lab must be completed prior to entering the nursing program.

Course	Title	Hours
First Year		
Fall		
NURS 153	Medication and Dosage Calculation	1
NURS 154	Physical Assessment	2
NURS 156	Basic Nursing Theory and Practice	6
PSYC 1110G	Introduction to Psychology	3
BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4
	Hours	**16**
Spring		
NURS 157	Maternal/Child Health Deviations	8
CEPY 1120G	Human Growth and Behavior	3
ENGL 1110G	Composition I	4
BIOL 2225	Human Anatomy and Physiology II	4
	Hours	**19**
Summer		
NURS 146	Common Health Deviations	6
	Hours	**6**
	Total Hours	**41**

Nursing - Associate in Nursing

Students must complete all degree requirements, which include: General Education requirements and elective credits to total at least 69 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, V, and VI		18-19
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [1]	
Area II: Mathematics		
MATH 1130G	Survey of Mathematics (Recommended) [2]	
or MATH 122	College Algebra	
Area III: Laboratory Science		
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors) (Technical Requirement) [1]	
Area IV: Social/Behavioral Sciences		
CEPY 1120G	Human Growth and Behavior (Technical Requirement) [1]	
Area V: Humanities [3]		

Code	Title	Hours
Area VI: Creative and Fine Arts [3]		
Technical Requirements [5]		
Program Pre-Requisites [4]		7
BIOL 2210C	Human Anatomy and Physiology I Lecture & Laboratory	
NA 101	Nursing Assistant Theory and Lab (or Current CNA certificate)	
PSYC 1110G	Introduction to Psychology	
Freshman Year Courses		
NURS 153	Medication and Dosage Calculation	1
NURS 154	Physical Assessment	2
NURS 156	Basic Nursing Theory and Practice	6
BIOL 2225	Human Anatomy and Physiology II	4
NURS 157	Maternal/Child Health Deviations	8
NURS 210	Pharmacological Requisites of the Childbearing Family	1
Sophomore Year Courses		
NURS 211	Pharmacological Requisites of Simple Health Deviations	1
NURS 246	Health Deviations I	7
NURS 258	Psychosocial Requisites: A Deficit Approach	3
NURS 212	Pharmacological Requisites of Complex Health Deviations	1
NURS 256	Health Deviations II	8
NURS 260	Management of Patients with Health Deviations	2
Total Hours		**69-70**

[1]

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

[2]

MATH 1220G College Algebra or MATH 1130G Survey of Mathematics is recommended for the degree but students may need to take any prerequisites needed to enter MATH 1220G or MATH 1130G first.

[3]

See the General Education section of the catalog for a full list of courses.

[4]

Students must complete all General Education & Program Pre-Requisites to be accepted into the Nursing program.

[5]

Please refer to the Nursing Program Student Handbook under 3.7 Progression/Retention for grading scale requirements.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
The following classes must be completed prior to entering the nursing program		
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors) [1]	4

BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4
NA 101	Nursing Assistant Theory and Lab	6
	Hours	**14**
Fall		
NURS 153	Medication and Dosage Calculation	1
NURS 154	Physical Assessment	2
NURS 156	Basic Nursing Theory and Practice	6
BIOL 2225	Human Anatomy and Physiology II	4
General Education Elective Course		3
PSYC 1110G	Introduction to Psychology (Recommended)	
	Hours	**16**
Spring		
NURS 157	Maternal/Child Health Deviations	8
NURS 210	Pharmacological Requisites of the Childbearing Family	1
Area IV: Social/Behavioral Sciences Course		3
CEPY 1120G	Human Growth and Behavior (Recommended)	
Area I: Communications Course		4
ENGL 1110G	Composition I (Recommended)	
	Hours	**16**
Second Year		
Fall		
NURS 211	Pharmacological Requisites of Simple Health Deviations	1
NURS 246	Health Deviations I	7
NURS 258	Psychosocial Requisites: A Deficit Approach	3
Area II: Mathematics Course		3
MATH 1130G or MATH 1220G	Survey of Mathematics (Recommended) or College Algebra	
	Hours	**14**
Spring		
NURS 212	Pharmacological Requisites of Complex Health Deviations	1
NURS 256	Health Deviations II	8
NURS 260	Management of Patients with Health Deviations	2
	Hours	**11**
	Total Hours	**71**

1

Successful completion of CHEM 1120G Introduction to Chemistry Lecture and Laboratory (non majors) satisfies General Education Area III: Science requirement (4 credits).

2

Note: CHEM 1120G Introduction to Chemistry Lecture and Laboratory (non majors) , BIOL 2210 Human Anatomy and Physiology I for the Health Sciences, and NA 101 Nursing Assistant Theory and Lab must be completed prior to entering the nursing program.

3

Note: MATH 1220G College Algebra or MATH 1130G Survey of Mathematics is recommended for the degree but students may need to take any prerequisites needed to enter MATH 1220G College Algebra or MATH 1130G Survey of Mathematics first.

Nursing Assistant

Nursing Assistant

Code	Title	Hours
NA 101	Nursing Assistant Theory and Lab	6

Pre-Nursing - Certificate of Completion

The Pre-Nursing Certificate of Completion is designed to guide pre-nursing students through the pre-requisites for the Associate of Nursing Degree. Developmental course work will not count towards the certificate requirements and/or elective credits, but maybe needed in order to take the necessary English and Mathematics coursework. All courses must be completed with a "C-" or higher.[1,2]

Completion of the certificate does not guarantee admissions into the Nursing program.

Code	Title	Hours
BIOL 2210C	Human Anatomy and Physiology I Lecture & Laboratory [3]	4
BIOL 2225C	Human Anatomy and Physiology II Lecture and Laboratory [3]	4
CEPY 1120G	Human Growth and Behavior	3
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	4
ENGL 1110G	Composition I	4
MATH 1130G or MATH 1220G	Survey of Mathematics College Algebra	3
NA 101	Nursing Assistant Theory and Lab [4]	6
PSYC 1110G	Introduction to Psychology	3
Total Hours		**31**

1

It is strongly recommended that all Pre-Nursing students meet with Academic Advisors for course scheduling and program information.

2

All courses that are part of the nursing curriculum must have a grade of "C-" or better to be applied to the certificate. Courses with less than "C-" will need to be repeated to receive credit toward the Associate Degree in Nursing. Courses may be "in progress" at the time of application but must be completed prior to starting the program.

3

It is strongly recommended that BIOL 2210C, BIOL 2225C, and CHEM 1120G be taken within 5 years of application to the Nursing program and should contact the Director of Nursing for approval. Science courses cannot be taken more than twice (excluding drops/withdrawals).

4

Credit may be awarded for students who are currently certified as a nurse assistant (regardless of state) or completed a CNA class within the last 5 years if not currently certified. Those who completed a medical assistant or physician's assistant program, or who are certified EMT Basic or higher might not need to complete NA 101 and should contact the Director of Nursing for approval.

Paralegal Studies

The Paralegal Studies Certificate program is designed to provide the student with an overall knowledge of legal issues and a variety of skills that go beyond what is necessary for a legal secretary. Those skills encompass the ability to interview clients and witnesses, to conduct research, and to aid attorneys and other professionals in the preparation of legal documents and to assist attorneys in preparation for trial.

The course of study provides opportunities for the student to gain advanced knowledge of law, including torts, criminal law, family law, business law, and estate planning as well as other areas of law applicable to the modern practice. The student will receive training in skills needed to work in various settings that utilize paralegals such as government agencies, private non-profit agencies, corporate legal departments, private law offices, and title, abstract, and real estate offices.

Graduation Requirements

All PL S courses must be completed with a C- or higher. PL S courses taken more than 7 years prior to graduation must be repeated.

Certificate in Paralegal Studies: A cumulative GPA of 2.5 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC.

AAS in Paralegal Studies: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.5 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

- Paralegal Studies - Associate of Applied Science (p. 157)
- Paralegal Studies - Certificate (p. 158)

PL S 160 Legal System for the Paralegal 3 Credits (3)
Introduction to the court system, administrative agencies, functions of law offices, and professional conduct and legal ethics.
Prerequisite(s): ACT standard score in English of 16 or higher or a Accuplacer score 250 or higher or ENGL 1110G and CCDS 113N
View Course Outcomes

PL S 161 Legal Terminology 3 Credits (3)
Survey of the language of the law that will serve either as an introductory course or as a review course to prepare students for the certification test.
View Course Outcomes

PL S 162 The Virtual Law Office 3 Credits (3)
The Virtual Law Office class is a 'hands-on', project oriented course designated to provide the student with the basic law office skills needed to function successfully in a law office setting. The student will gain a practical, working knowledge of the procedures necessary to work in a law office. The skills learned in the class will directly translate to real life situations.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 180 Constitutional Law for the Paralegal 3 Credits (3)
Case standing of the law of the Constitution and Bill of Rights with regard to day-to-day applications in the law practice. Documents dealing with constitutional problems in both civil and criminal areas of law will be drafted and discussed.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 190 Criminal Law for the Paralegal 3 Credits (3)
Introduction to federal and state criminal law; criminal proceedings, prosecution and defense, sentencing and appeal.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 200 Legal Ethics for the Paralegal 3 Credits (3)
Introduction to ethical dilemmas faced in the workforce and the rules of ethics developed by the American Bar Association, various national paralegal organizations, and the Supreme Court of New Mexico.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 203 Immigration Law 3 Credits (3)
Survey of the basics of immigration law including the rights and obligations of citizenship and the naturalization process.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 221 Internship I 2-4 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships can be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor.
Prerequisite(s): PL S 274
View Course Outcomes

PL S 222 Internship II 1-3 Credits
Continuation of PL S 221. Each credit requires specified number of hours of on-the-job work experience.
Prerequisite(s): PL S 221
View Course Outcomes

PL S 231 The Law of Commerce for the Paralegal 3 Credits (3)
Law of contracts, negotiable instruments, bank transfers, secured transactions, debtor-creditor relations, agency, and business types and their formation. Students will study the relevant statutes as well as draft documents associated with these types of legal practice.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 272 Bankruptcy Law for the Paralegal 3 Credits (3)
Individual and corporate bankruptcy; the basic principles and processes of bankruptcy law as a system of debtor relief and debt collection.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 274 Legal Research and Writing for the Paralegal I 3 Credits (3)
Legal memoranda, briefs, and pleadings will be prepared and written based on the student s original research. Research materials and techniques will be identified and studied; introduction of computer usage in legal research.
Prerequisite(s): PL S 160 and ENGL 1110G
View Course Outcomes

PL S 275 Tort and Insurance for the Paralegal 3 Credits (3)
Primary legal principles of tort and insurance law and means of establishing insurance plans, types of torts and insurance, as well as use of specific forms and procedures relating to these areas.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 276 Wills, Trusts, and Probate for the Paralegal 3 Credits (3)
Cases and statutes dealing with wills, trusts, and probate. Emphasis on preparation and drafting of documents and the application of the law and documents to the client s problems.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 277 Family Law for the Paralegal 3 Credits (3)
Methods of conducting client interviews and drafting of pleadings and research relative to families. Laws relating to marriage, divorce, custody, support, adoption, name change, guardianship, and paternity.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 278 Litigation for the Paralegal 3 Credits (3)
The law of procedure and evidence will be considered through rules and cases. Case situations will be used to identify and solve problems.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 279 Legal Research and Writing for the Paralegal II 3 Credits (3)
Continuation of PL S 274. Advanced training in legal research problems with a focus on analysis, writing, and preparation of sophisticated legal memoranda and documents.
Prerequisite(s): PL S 274
View Course Outcomes

PL S 280 Interviewing and Investigation for the Paralegal 3 Credits (3)
Techniques of legal interviewing and investigation with emphasis on development of human relations and communication skills.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 298 Independent Study 1-3 Credits
Individual studies directed by consenting faculty with prior approval by department head.
Prerequisite(s): PL S 160
View Course Outcomes

Paralegal Studies - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, IV, V, VI, and VII		15-16
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement)	
Area IV: Social/Behavioral Sciences		
Choose one from the following:		
CEPY 1120G	Human Growth and Behavior	
PSYC 1110G	Introduction to Psychology	
SOCI 1110G	Introduction to Sociology	
Area V: Humanities [1]		
Area VI: Creative and Fine Arts [1]		
Area VII: Flexible 3 (General Education Elective)		
COMM 1115G	Introduction to Communication (Technical Requirement) [2]	
or COMM 1130G	Public Speaking	
Technical Requirements		
BLAW 2110	Business Law I	3
OATS 105	Business English I	3
or OATS 106	Business Mathematics	
PL S 160	Legal System for the Paralegal	3
PL S 180	Constitutional Law for the Paralegal	3
PL S 190	Criminal Law for the Paralegal	3
PL S 200	Legal Ethics for the Paralegal	3
PL S 231	The Law of Commerce for the Paralegal	3
PL S 274	Legal Research and Writing for the Paralegal I	3
PL S 275	Tort and Insurance for the Paralegal	3
PL S 277	Family Law for the Paralegal	3
PL S 278	Litigation for the Paralegal	3
PL S 279	Legal Research and Writing for the Paralegal II	3
PL S 280	Interviewing and Investigation for the Paralegal	3
Choose one from the following:		3
OATS 213	Word Processing I	
OATS 214	Word Processing II	
BCIS 1110	Fundamentals of Information Literacy and Systems	
Electives		**4**
Choose one from the following:		
CJUS 1110G	Introduction to Criminal Justice	
POLS 1120G	American National Government	
Any three credit PL S course not listed as a major requirement above		
Total Hours		**61-62**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

Cumulative GPA of 2.5 and a "C" or better required in these courses; PL S courses taken more than 7 years prior to graduation must be repeated.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and/or course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
BLAW 2110	Business Law I	3
ENGL 1110G	Composition I (C- or higher)	4
OATS 105	Business English I	3
or OATS 106	or Business Mathematics	
PL S 160	Legal System for the Paralegal	3
PL S 180	Constitutional Law for the Paralegal	3
	Hours	**16**

Spring

COMM 1115G or COMM 1130G	Introduction to Communication (Area VII: Flexible 3 (General Education Elective)) or Public Speaking	3
PL S 200	Legal Ethics for the Paralegal	3
PL S 274	Legal Research and Writing for the Paralegal I	3
Choose one from the following:		3
BCIS 1110	Fundamentals of Information Literacy and Systems	
OATS 213	Word Processing I	
OATS 214	Word Processing II	
Area IV: Social/Behavioral Science - Choose one from the following:		3
CEPY 1120G	Human Growth and Behavior	
PSYC 1110G	Introduction to Psychology	
SOCI 1110G	Introduction to Sociology	
	Hours	**15**
Second Year		
Fall		
PL S 190	Criminal Law for the Paralegal	3
PL S 231	The Law of Commerce for the Paralegal	3
PL S 275	Tort and Insurance for the Paralegal	3
PL S 277	Family Law for the Paralegal	3
Area V: Humanities Course [1]		3
	Hours	**15**
Spring		
PL S 278	Litigation for the Paralegal	3
PL S 279	Legal Research and Writing for the Paralegal II	3
PL S 280	Interviewing and Investigation for the Paralegal	3
Area VI: Creative and Fine Arts Course [1]		3
Choose one Elective Course from the following:		3
CJUS 1110G	Introduction to Criminal Justice	
POLS 1120G	American National Government	
Any PL S course not already taken as a major requirement		
	Hours	**15**
	Total Hours	**61**

[1]

See the General Education section of the catalog for a full list of courses.

Paralegal Studies - Certificate

Code	Title	Hours
Technical Requirements		
BLAW 2110	Business Law I	3
ENGL 1110G	Composition I [1]	4
COMM 1115G or COMM 1130G	Introduction to Communication Public Speaking	3
OATS 105 or OATS 106	Business English I Business Mathematics	3
OATS 213 or OATS 214 or BCIS 1110	Word Processing I Word Processing II Fundamentals of Information Literacy and Systems	3
PL S 160	Legal System for the Paralegal	3
PL S 180 or PL S 190	Constitutional Law for the Paralegal Criminal Law for the Paralegal	3
PL S 200	Legal Ethics for the Paralegal	3

PL S 274	Legal Research and Writing for the Paralegal I	3
Choose one from the following:		3
CEPY 1120G	Human Growth and Behavior	
PSYC 1110G	Introduction to Psychology	
SOCI 1110G	Introduction to Sociology	
Total Hours		**31**

[1]

ENGL 1110G Composition I with a C- or better.

[2]

Cumulative GPA of 2.5 and a C- or better required in these courses; PL S courses taken more than 7 years prior to graduation must be repeated.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
OATS 105 or OATS 106	Business English I or Business Mathematics	3
CEPY 1120G or PSYC 1110G or SOCI 1110G	Human Growth and Behavior or Introduction to Psychology or Introduction to Sociology	3
BLAW 2110	Business Law I	3
PL S 160	Legal System for the Paralegal	3
PL S 180 or PL S 190	Constitutional Law for the Paralegal or Criminal Law for the Paralegal	3
	Hours	**15**
Second Year		
Spring		
ENGL 1110G	Composition I	4
COMM 1115G or COMM 1130G	Introduction to Communication or Public Speaking	3
OATS 213 or OATS 214 or BCIS 1110	Word Processing I or Word Processing II or Fundamentals of Information Literacy and Systems	3
PL S 200	Legal Ethics for the Paralegal	3
PL S 274	Legal Research and Writing for the Paralegal I	3
	Hours	**16**
	Total Hours	**31**

Phlebotomist Technician

This course prepares students in one semester to be workforce ready and serve the community as a well-trained and well-educated phlebotomist technician. It provides students the opportunity to go directly into the workforce or apply their hands-on experience from this course to pursuing additional education within the health and medical field.

- Phlebotomist Technician - Certificate of Achievement (p. 159)

Phlebotomist Technician - Certificate of Achievement

Code	Title	Hours
Technical Requirements		
NA 115	Phlebotomist Technician [1]	6

1

Most be completed with a C- or higher.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
NA 115	Phlebotomist Technician	6
	Hours	**6**
	Total Hours	**6**

Pre-Business

The **Associate Degree in Pre-Business** requires the completion of those courses which are needed before bachelor's degree. It is a generalized two-year curriculum that provides students with the necessary general education and lower division courses that constitute a solid base for a bachelor's degree in one of the many areas of business concentration including accounting, finance, management, marketing, real estate, and economics. The program also provides management skills for employment in entry level positions.

Graduation Requirements

ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 60 credits for the associate's degree must be completed at SENMC.

Pre-Business - Associate in Pre-Business

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		
Choose one from the following:		4
ENGL 1110G	Composition I	
ENGL 1110H	Composition I Honors	
English Composition - Level 2		
ENGL 2210G	Professional & Technical Communication	3
Oral Communication		
Choose one from the following:		3
ACOM 1130G	Effective Leadership and Communication in Agriculture	
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
HNRS 2175G	Principles of Human Communication Honors	
Area II: Mathematics		
MATH 1220G	College Algebra (Core Requirement) [1,2]	3
Area III: Laboratory Science [3]		4
Area IV: Social/Behavioral Sciences		6
ECON 2110G	Macroeconomic Principles (Core Requirement-Grade C- or higher) [2]	
ECON 2120G	Microeconomic Principles (Core Requirement-Grade C- or higher) [2]	
Area V: Humanities [3]		3
Area VI: Creative and Fine Arts [3]		3
Area VII: Flexible 3 (General Education Elective)		
MATH 1430G	Applications of Calculus I (Core Requirement-Grade C- or higher)	3
Core Curriculum Requirements		
ACCT 2110	Principles of Accounting I (Financial)	3
ACCT 2120	Principles of Accounting II (Managerial)	3
BCIS 1110	Fundamentals of Information Literacy and Systems	3
BUSA 1110	Introduction to Business	3
MATH 1350G	Introduction to Statistics (grade of C- or better)	3
Electives, to bring the total credits to 60 [4]		**13**
Total Hours		**60**

1

Students may be required to take MATH 1215 Intermediate Algebra, depending on their math placement. If required this course will count towards electives.

2

All Core Requirement Courses must be taken, or satisfied with transfer credits, regardless if a student transfers in coursework from a New Mexico institution that meets the New Mexico General Education requirements.

3

See the General Education section of the catalog for a full list of courses.

4

Elective credit may vary based on the amount needed to bring the total to 60 credits. Students should discuss elective requirements with their advisor.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
BCIS 1110	Fundamentals of Information Literacy and Systems	3
Choose one from the following:		4
ENGL 1110G	Composition I	
ENGL 1110H	Composition I Honors	
MATH 1220G or MATH 1215	College Algebra [1] or Intermediate Algebra	3
Area VI: Creative and Fine Art [2]		3
Choose one from the following:		3
ACOM 1130G	Effective Leadership and Communication in Agriculture	
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
HNRS 2175G	Principles of Human Communication Honors	
	Hours	**16**
Spring		
BUSA 1110	Introduction to Business [3]	3
ECON 2110G	Macroeconomic Principles	3
ENGL 2210G	Professional & Technical Communication	3
Area V: Humanities [2]		3
Elective Course or [3]		4
MATH 1220G	College Algebra [1]	
	Hours	**16**
Second Year		
Fall		
ACCT 2110	Principles of Accounting I (Financial)	3
MATH 1430G	Applications of Calculus I	3
Area III: Laboratory Science [2]		4
Elective Course [3]		3
	Hours	**13**
Spring		
ACCT 2120	Principles of Accounting II (Managerial)	3
ECON 2120G	Microeconomic Principles	3
MATH 1350G	Introduction to Statistics	3
Elective Courses [3]		6
	Hours	**15**
	Total Hours	**60**

[1]

Students may be required to take MATH 1215 Intermediate Algebra, depending on their math placement. If required this course will count towards electives.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

Elective credit may vary based on the amount needed to bring the total to 60 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

Science

The **Associate of Science degree** offers the choice of three different **optional** concentrations, which allow for an easier transition into a

baccalaureate science major depending on the student's choice of major. In order to earn an Associate of Science degree, the student must earn at least 16 credits in laboratory sciences.

Graduation Requirements

A grade of C- or better is required for all courses for the degree.

- Associate of Science Degree (p. 160)

Associate of Science Degree

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 61 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	
English Composition - Level 2		3
ENGL 2210G	Professional & Technical Communication	
or ENGL 222	Writing in the Humanities and Social Science	
Oral Communication		3
COMM 1130G	Public Speaking	
or COMM 11	Introduction to Communication	
Area II: Mathematics [1]		3-4
Choose one from the following:		
MATH 1220G	College Algebra	
MATH 1250G	Trigonometry & Pre-Calculus	
MATH 1511G	Calculus and Analytic Geometry I	
Area III: Laboratory Science [2]		8
Area IV: Social/Behavioral Sciences [2]		3
Area V: Humanities [2]		3
Area VI: Creative and Fine Arts [2]		3
Area VII: Flexible 3 (General Education Elective) [2]		3-4
Core Curriculum Requirements		
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM majors	4
Additional AREA III courses not taken fulfill General Education Requirements [3]		8
Additional Science Course with a Lab [3]		4
Electives to bring the total credits to 61 [3]		**12**
Total Hours		**61-62**

[1]

Course is a Core Requirement and must be completed regardless of transfer credit awarded.

[2]

See the General Education section of the catalog for a full list of courses.

[3]

Please see recommended concentrations options below.

Recommended Concentration Options

It is strongly recommended to choose an option to focus your studies. Please note that some classes are only offered in a particular semester and may have prerequisites.

Option: Biology
Laboratory Science Courses

Code	Title	Hours
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Laboratory	4
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory	4
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4

Biology Option Recommended Electives

Code	Title	Hours
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-based Physics I Laboratory	4
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-based Physics II Laboratory	4
MATH 1511G	Calculus and Analytic Geometry I	4
MATH 1521G	Calculus and Analytic Geometry II	4

Option: Natural Resources
Laboratory Science Courses

Code	Title	Hours
ENVS 1110G	Environmental Science I	4
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4

Natural Science Option recommended Electives

Code	Title	Hours
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Laboratory	4
CHEM 2115	Survey of Organic Chemistry and Laboratory	4
GEOL 1110G	Physical Geology	4
MATH 1511G	Calculus and Analytic Geometry I	4
MATH 1521G	Calculus and Analytic Geometry II	4
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus - Based Physics I Laboratory	4

Option: Physical Science
Laboratory Science Courses

Code	Title	Hours
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-based Physics I Laboratory	4
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-based Physics II Laboratory	4

Physical Option recommended Electives

Code	Title	Hours
MATH 1250G	Trigonometry & Pre-Calculus	4
MATH 1511G	Calculus and Analytic Geometry I	4
MATH 1521G	Calculus and Analytic Geometry II	4
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Laboratory	4
GEOL 1110G	Physical Geology	4

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
ENGL 1110G	Composition I	4
Area III: Laboratory Science Course [1]		4
Area III: Laboratory Science Course [2]		4
Elective		4
	Hours	**16**
Spring		
COMM 1115G or COMM 1130G	Introduction to Communication or Public Speaking	3
MATH 1220G or MATH 1250G or MATH 1511G	College Algebra [3] or Trigonometry & Pre-Calculus or Calculus and Analytic Geometry I	3-4
Area III: Laboratory Science Course [1]		4
Area IV: Social/Behavioral Science Course [1]		3
Area III: Laboratory Science Course [2]		4
	Hours	**17-18**
Second Year		
Fall		
ENGL 2210G or ENGL 2221G	Professional & Technical Communication or Writing in the Humanities and Social Science	3
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM majors	4
Area V: Humanities Course [1]		3
Elective Course [4]		4
	Hours	**14**

Spring

Area III: Laboratory Science Course [2]	4
Area VI: Creative and Fine Arts Course [1]	3
Elective Course [4]	4
Area VII: Flexible 3 (General Education Elective) [4]	3-4
Hours	**14-15**
Total Hours	**61-63**

[1]

See the General Education section of the catalog for a full list of courses.

[2]

8 credits must be "G" courses and students must have 24 credits total of Area III: Laboratory Science Courses. (See below for Recommended Courses based on subject area).

Biology Option
- BIOL 2610G Principles of Biology: Biodiversity, Ecology, and Evolution/BIOL 2610L Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory
- BIOL 2110G Principles of Biology: Cellular and Molecular Biology/BIOL 2110L Principles of Biology: Cellular and Molecular Laboratory
- CHEM 1215G General Chemistry I Lecture and Laboratory for STEM majors
- CHEM 1225G General Chemistry II Lecture and Laboratory for STEM Majors

Natural Resources Option
- ENVS 1110G Environmental Science I
- BIOL 2610G Principles of Biology: Biodiversity, Ecology, and Evolution/BIOL 2610L Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory
- CHEM 1215G General Chemistry I Lecture and Laboratory for STEM majors
- CHEM 1225G General Chemistry II Lecture and Laboratory for STEM Majors

Physical Science Option
- CHEM 1215G General Chemistry I Lecture and Laboratory for STEM majors
- CHEM 1225G General Chemistry II Lecture and Laboratory for STEM Majors
- PHYS 1230G Algebra-Based Physics I/PHYS 1230L Algebra-based Physics I Laboratory
- PHYS 1240G Algebra-Based Physics II/PHYS 1240L Algebra-based Physics II Laboratory

[3]

Students who place above MATH 121G College Algebra must take an additional 3 credits of higher-level MATH or science electives. Students may also need to complete any prerequisites before entering the course of their choice.

[4]

Mathematics, Engineering and Additional Laboratory Science Electives: Biology Option
- PHYS 1230G Algebra-Based Physics I/PHYS 1230L Algebra-based Physics I Laboratory
- PHYS 1240G Algebra-Based Physics II/PHYS 1240L Algebra-based Physics II Laboratory
- MATH 1511G Calculus and Analytic Geometry I
- MATH 1521G Calculus and Analytic Geometry II

Natural Resources Option
- BIOL 2110G Principles of Biology: Cellular and Molecular Biology/BIOL 2110L Principles of Biology: Cellular and Molecular Laboratory
- CHEM 2115 Survey of Organic Chemistry and Laboratory
- GEOL 1110G Physical Geology
- MATH 1511G Calculus and Analytic Geometry I
- MATH 1521G Calculus and Analytic Geometry II
- PHYS 1310G Calculus -Based Physics I/PHYS 1310L Calculus - Based Physics I Laboratory

Physical Science Option
- MATH 1250G Trigonometry & Pre-Calculus
- MATH 1511G Calculus and Analytic Geometry I
- MATH 1521G Calculus and Analytic Geometry II
- BIOL 2610G Principles of Biology: Biodiversity, Ecology, and Evolution/BIOL 2610L Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory
- BIOL 2110G Principles of Biology: Cellular and Molecular Biology/BIOL 2110L Principles of Biology: Cellular and Molecular Laboratory
- GEOL 1110G Physical Geology

Social Work

The **Associate Degree in Social Services** is designed to prepare students for careers in social service or community health agencies as paraprofessionals.

Graduation Requirements

Students must earn a grade of C- or better in all courses. Total credits required for degree 60.

- Social Work - Associate Degree (p. 162)

Social Work - Associate Degree

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 60 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Area I: Communications		
English Composition - Level 1		4-3
ENGL 1110G	Composition I	

English Composition - Level 2		3
ENGL 2210G	Professional & Technical Communication	
	or ENGL 222 Writing in the Humanities and Social Science	
Oral Communication		3
COMM 1130G	Public Speaking	
	or COMM 11 Introduction to Communication	
Area II: Mathematics		3
MATH 1350G	Introduction to Statistics (Core Requirement) [1]	
Area III: Laboratory Science		4
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory (Core Requirement) [1]	
Area IV: Social/Behavioral Sciences		6
PSYC 1110G	Introduction to Psychology (Core Requirement) [1]	
SOWK 2110G	Introduction to Human Services and Social Work (Core Requirement) [1]	
Area V: Humanities		3
	Choose any PHIL courses from Area-V (Core Requirement)	
Area VI: Creative and Fine Arts		3
Area VII: Flexible 3 (General Education Elective) [2]		3-4
Core Curriculum Requirements		
BCIS 1110	Fundamentals of Information Literacy and Systems	3
FYEX 1110	First-Year Seminar	1
HMSV 2110	Case Management	3
PSYC 2221	Applied Psychology	3
or PSYC 2230	Psychology of Adjustment	
SPAN 1110	Spanish I	4
SPAN 1120	Spanish II	4
Electives to bring the total credits to 60		**10**
Recommended		
CEPY 1120G	Human Growth and Behavior	
MATH 1220G	College Algebra	
SOCI 1110G	Introduction to Sociology	
Total Hours		**60**

[1]

Course is a Core Requirement and must be completed regardless of transfer credit awarded.

[2]

See the General Education section of the catalog for a full list of courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
FYEX 1110	First-Year Seminar	1
BCIS 1110	Fundamentals of Information Literacy and Systems	3
SOWK 2110G	Introduction to Human Services and Social Work [1]	3

Course	Title	Hours
ENGL 1110G	Composition I	4
Elective Course		3
	Hours	**14**
Spring		
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory [1]	4
ENGL 2210G or ENGL 2221G	Professional & Technical Communication or Writing in the Humanities and Social Science	3
MATH 1350G	Introduction to Statistics [1]	3
PSYC 1110G	Introduction to Psychology [1]	3
	Hours	**13**
Second Year		
Fall		
SPAN 1110	Spanish I	4
Area V: Humanities		3
Any PHIL course from AREA-V [2]		
COMM 1130G or COMM 1115G	Public Speaking or Introduction to Communication	3
Elective Course		3
Area VI: Creative and Fine Arts		3
	Hours	**16**
Spring		
SPAN 1120	Spanish II	4
PSYC 2221 or PSYC 2230	Applied Psychology or Psychology of Adjustment	3
HMSV 2110	Case Management	3
Elective Course [2]		4
General Education Elective Course		3-4
	Hours	**17-18**
	Total Hours	**60-61**

[1]

Course is a Core Requirement and must be completed regardless of transfer credits awarded.

[2]

See the General Education section of the catalog for a full list of courses.

Surgical Technology

The Associate of Applied Science in Surgical Technology prepares students to demonstrate basic entry-level skills and concepts appropriate for performing the duties of a surgical technologist. Some of the technology skills and concepts include the aseptic technique, preparation for specific surgical procedures, participation in patient and instrumentation preparation for individual surgical cases, and collaboration with interdisciplinary team members for providing high quality patient outcomes. This program prepares the student for professional readiness for employment and attaining certification status.

Surgical Technologists will have numerous job opportunities upon graduation. Surgical Technologists may also be called operating room technicians and assist in surgical operations. They prepare operating rooms, arrange equipment, and assist doctors and nurses during surgeries. Typical work settings are hospitals, outpatient surgery centers, physician offices, and dentist offices.

Program Outcomes

At the completion of the **Surgical Technology of Applied Science Associate Degree** program, the student should be able to:

1. *Integrate the Surgical Technology knowledge base in affective, cognitive, and psychomotor domains; demonstrate skills following established criteria, protocols and objectives in the affective, cognitive, and psychomotor domains.*
2. *Demonstrate, discuss, and apply appropriate Surgical Technology procedures and protocols in various health care settings and situations; react appropriately and with professional demeanor while in various health care settings and situations.*
3. *Compare, contrast, discuss, demonstrate and apply knowledge of interpersonal skills and communications relative to procedures and protocols from the Surgical Technologist perspective when working with patients, patients' significant others, colleagues, other members of the health care team, and members of the community.*
4. *Operate all equipment effectively, efficiently, and safely while using appropriate protocols.*
5. *Function effectively, efficiently, and safely in the Surgical Technologist role.*
6. *Compare, contrast, discuss, demonstrate, and apply critical thinking skills, problem solving skills, ethical behavior and knowledge of Surgical Technologists capabilities, roles, responsibilities, ethical guidelines, scope of practice, and skills in a variety of settings and with a variety of procedures.*
7. *Compare, contrast, discuss, and demonstrate skills related to information literacy; access, gather, interpret, and analyze information, and accurately report it, especially as it pertains to Surgical Technology.*
8. *Compare, contrast, discuss, and integrate an understanding and valuing of their place in the health care system, as well as for other health care professionals.*

Course information

The course number indicates whether the course is a freshman (100 level) or sophomore (200 level) course. The (3+3p) means that the class meets for 150 minutes per week for lectures and also requires 150 minutes per week of "laboratory" (practice, field work, or recitation). The suffix "G" indicates an approved general education course. The letter "N" will be added as a suffix to the course number when the course credits are not applicable to the baccalaureate and specified associate degrees.

Admission to the ST program

1. High school diploma or GED certificate.
2. Satisfactory scores on placement tests: Students who fail to make a satisfactory score on the placement tests will be required to enroll and pass the appropriate developmental class with a "C-" or better. Placement test scores may not be utilized in lieu of a "D" or "F" in any developmental class.
3. **Criminal Background Checks**: Surgical Technology is a very selective medical field and criminal background checks are required for many positions per Department of Health for employment and certification. The Joint Commission also requires healthcare organizations to verify criminal background information on individuals who provide services, care, and treatment to patients/clients during practicum activities.
4. A "C-" must be maintained in all ST curriculum courses to progress and/or graduate with AAS in Surgical Technology.

Students are admitted to the ST program in the Spring semester of each year. The deadline to apply for the program is 5:00 pm May 1. Students wishing to make application must complete all requirements set forth in the current application packet and submit to the Allied Health Director starting August 15th.

Graduation

The **Associate Degree of Applied Science in Surgical Technology** is conferred at the completion of the ST program. The total requirements of the program must be completed before a degree is conferred.

Pre-Surgical Technology - Certificate of Completion

SURG 120 Surgical Technology Clinical I 2-4 Credits

This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. This course is designed to prepare the student to enter the surgical environment. This course provides an introduction to the operating room, observation of surgical procedures, direct participation in the preoperative (pre-op, intra-op, post-op) preparation of individual cases and professional roles and responsibilities of individual members of the surgical team. Direct supervision is provided by the clinical professional. Students must be admitted into Surgical Technology Program to enroll in this course. (6P)

Prerequisite(s): BIOL 2310, BIOL 2210, BIOL 2225, NURS 150
Corequisite(s): SURG 140, SURG 145
Repeatable: up to 4 credits
Learning Outcomes

1. Demonstrate of and adherence to Standard Precautions.
2. Demonstrate professional conduct and ethical practice in the clinical setting.
3. Demonstrate proper procedure for surgical scrub.
4. Demonstrate proper procedure for gowning and gloving self and others.
5. Identify and Utilize OR furniture and equipment appropriate to individual cases.
6. Demonstrate preoperative case/procedure preparation.
7. Locate basic instruments and assemble specified instrument sets.
8. Demonstrate knowledge and utilization of specialty and accessary equipment.
9. Demonstrate care, handling, and assembly of common equipment. 1
10. Create and maintain sterile field. 1
11. Identify suture materials and stapling devices. 1
12. Demonstrate preparation and handling techniques of suturing materials and stapling devices. 1
13. Demonstrate knowledge of skin preparation. 14Discuss, demonstrate, and apply principles of surgical positioning. 1
14. Identify, describe, and demonstrate the principles of transportation of the surgical patient. 1
15. Define and demonstrate the handling, labeling, and containment of specimens. 1
16. Explain and perform postoperative case, instruments, and room break down and preparation.

View Course Outcomes

SURG 140 Introduction to Surgical Technology 4 Credits (4)
This is an orientation to surgical technology theory, surgical pharmacology and anesthesia, technology sciences and patient care concepts and is designed to prepare the student to enter the surgical environment with entry-level knowledge necessary to understand patient responses to disease, illness, hospitalization, surgical procedures, commonly used pharmacological and anesthetic agents, and legal, moral, and ethical issues that could be encountered in the surgical environment.
Prerequisite(s): Admission to Surgical Technology Program; BIOL 2310, BIOL 2225, & NURS 150
Learning Outcomes

View Course Outcomes

SURG 145 Fundamentals of Perioperative Concepts & Techniques 5 Credits (5)
This is an in-depth coverage of perioperative concepts such as aseptic/sterile principles and practice, infectious processes, wound healing and creation and maintenance of the sterile field. This course is designed to prepare the student to enter the surgical environment with entry-level knowledge of aseptic technique principles and practices, the creation and maintenance of the sterile field including equipment, supplies and instrumentation, and basic case preparation and procedures. An introduction to diseases and disease processes that may be displayed by the surgical patient and the patient's bodily responses to disease are also included. (3+3P)
Prerequisite(s): Admission to Surgical Technology Program, BIOL 2310, BIOL 2210, BIOL 2225, & NURS 150
Repeatable: up to 5 credits
Learning Outcomes
1. Demonstrate principles and practices of aseptic/sterile techniques
2. Identify infectious processes and concepts of wound healing
3. Create a sterile field utilizing basic case preparation
4. Exhibit maintenance of the sterile field during procedures

View Course Outcomes

SURG 150 Surgical Procedures I 5 Credits (5)
This course is an introduction to surgical procedures and its related pathologies. Emphasis on surgical procedures related to general, obstetrics/gynecology, genitourinary, otorhinolaryngology and orthopedic surgical specialties incorporating instruments, equipment. It is designed to prepare the student to function actively in the surgical environment with entry-level knowledge of surgical procedures. This course expands the basic foundation principles and combines the study of common surgical procedures to include anatomy, physiology and pathophysiology. Specific patient care concepts, medications, instrumentation, equipment, supplies and complication related to selected surgical procedures will be discussed. Admission to Surgical Technology Program necessary to enroll in the course. (5+3P)
Prerequisite(s): SURG 140, SURG 145, and SURG 120
Learning Outcomes

View Course Outcomes

SURG 155 Pharmacology for the Surgical Technology 2 Credits (2)
This is an orientation to surgical pharmacology and anesthesia and is designed to prepare the student to enter the surgical environment with knowledge necessary to categorize the classification of drugs, calculate drug dosages and identify the therapeutic use, routes of administration, indications, contraindications and adverse effects of pharmacologic agents used in the perioperative setting. This course is the foundation for the acquisition of program specific competencies as identified by the AST Core Curriculum.
View Course Outcomes

SURG 160 Surgical Procedures II 6 Credits (6)
This is an introduction to surgical procedures and related pathologies. Emphasis on surgical procedures related to thoracic, peripheral vascular, plastic/reconstructive, ophthalmology, cardiac and neurological surgical specialties incorporating instruments. The course is designed to prepare the student to continue to function actively in the surgical environment with entry-level knowledge of more complex surgical procedures. This course expands the basic foundation principles and combines the study of complex surgical procedures to include anatomy, physiology, and pathophysiology. Specific patient care concepts, medications, instrumentation, equipment, supplies, and complications related to specific surgical procedures will be discussed. Realities of clinical practice and concepts of death and dying will also be discussed. Admission to Surgical Technology Program necessary to enroll in the course.
Prerequisite(s): SURG 150, SURG 260
Learning Outcomes

View Course Outcomes

SURG 230 Professional Readiness 2 Credits (2)
This course transitions the student into professional readiness for employment, professional readiness for attaining certification and professional readiness for maintaining certification status. Admission to Surgical Technology Program necessary to enroll in the course.
Prerequisite(s): SURG 140, SURG 145, SURG 120, SURG 150, SURG 260
Corequisite(s): SURG 160, SURG 265
View Course Outcomes

SURG 260 Surgical Technology Clinical II 4 Credits (4)
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This course is designed to provide the student the opportunity to functional actively in the role as a surgical technologist and health care team member in a clinical setting under the direct supervision of faculty and health care staff. Applications of basic principles and practices combined with a supervised clinical experience participating in common surgical procedures is the focus. Admission to Surgical Technology Program is necessary to enroll in the course. (12P)
Prerequisite(s): SURG 120, SURG 140, & SURG 145
View Course Outcomes

SURG 265 Surgical Technology Clinical III 4 Credits (4)
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. This course is designed to provide the student the opportunity to function actively in the role of a surgical technologist and health care team member in a clinical setting under the direct supervision of faculty and health care staff. Refinement and application of basic principles and practices combined with entry-level employment competency expectations is the focus. Preparation for the National Certification Examination for Surgical Technologists is also included. Admission to Surgical Technology Program necessary to enroll in the course. (9P)
Prerequisite(s): SURG 260
View Course Outcomes

Pre-Surgical Technology - Certificate of Completion

The **Pre-surgical Technology Program Certificate of Completion** is designed for students who intent to apply for the Associate of Applied Science Surgical Technology program. The certificate will provide students the required coursework for prerequisites and general education, which must be completed for consideration of acceptance into the Associate of Pre-Surgical Technology program.

Completion of the Pre-Surgical Technology Certificate qualifies a student to apply to the Surgical Technology program but does not guarantee admission nor can it be used for gainful employment. Courses may be "in progress" at the time of application but must be completed prior to starting the program.

Code	Title	Hours
Technical Requirements		
Area I: Communications		3-4
ENGL 1110G	Composition I	
or COMM 1115G	Introduction to Communication	
or COMM 1130G	Public Speaking	
Area II: Mathematics		3
MATH 1130G	Survey of Mathematics	
Area III: Laboratory Science		4
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	
or CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM majors	
Area IV: Social/Behavioral Sciences		3
CEPY 1120G	Human Growth and Behavior (Recommended)	
BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4
BIOL 2225	Human Anatomy and Physiology II	4
BIOL 2310	Microbiology	3
BIOL 2310L	Microbiology Laboratory	1
HIT 150	Introduction to Medical Terminology	3
Total Hours		**28-29**

[1]

See General Education section of the catalog for a list of courses.

Course	Title	Hours
First Year		
Fall		
General Education [1,2]		3-4
One course from Area I, II, IV, V, or VI		
CHEM 1120G or CHEM 1215G	Introduction to Chemistry Lecture and Laboratory (non majors) or General Chemistry I Lecture and Laboratory for STEM majors	4
BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4
HIT 150	Introduction to Medical Terminology	3
	Hours	**14-15**
Spring		
General Education [1,2]		3
One course from Area I, II, IV, V or VI		
General Education [1,2]		3
One course from Area I, II, IV, V or VI		
BIOL 2225	Human Anatomy and Physiology II	4
BIOL 2310	Microbiology	3
BIOL 2310L	Microbiology Laboratory	1
	Hours	**14**
	Total Hours	**28-29**

[1]

See General Education section of the catalog.

[2]

Each course must be from a different Area.

Surgical Technology - Associate of Applied Science

Students must complete all University degree requirements, which include: General Education requirements and elective credits to total at least 63-64 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

All courses must be completed with a C- or higher.

Code	Title	Hours
General Education		
Course required from Area I, II, III, IV, and VII [1]		16-17
Area I: Communications - Recommended to choose one course from the courses below		
ENGL 1110G	Composition I	
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
Area II: Mathematics - Recommended to choose one course from the courses below		
MATH 1130G	Survey of Mathematics	
MATH 1220G	College Algebra	
Area III: Laboratory Science - Choose one course from the courses below required prerequisite for BIOL courses		
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	

CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM majors	
Area IV: Social/Behavioral Sciences		
CEPY 1120G	Human Growth and Behavior (Recommended)	
Area VII: Flexible 3 (General Education Elective) - Recommended to choose one course from the courses below		
ENGL 2210G	Professional & Technical Communication	
MATH 1350G	Introduction to Statistics	
PHIL 1145G	Philosophy, Law, and Ethics	
PHIL 2110G	Introduction to Ethics	
PHLS 1110G	Personal Health & Wellness	
Technical Requirements		
Program Pre-requisites [2]		11
HIT 150	Introduction to Medical Terminology	
BIOL 2210C	Human Anatomy and Physiology I Lecture & Laboratory	
BIOL 2225C	Human Anatomy and Physiology II Lecture and Laboratory	
BIOL 2310 & 2310L	Microbiology and Microbiology Laboratory	
SURG 140	Introduction to Surgical Technology	4
SURG 145	Fundamentals of Perioperative Concepts & Techniques	5
SURG 120	Surgical Technology Clinical I	4
SURG 155	Pharmacology for the Surgical Technology	2
SURG 150	Surgical Procedures I	5
SURG 260	Surgical Technology Clinical II	4
SURG 160	Surgical Procedures II	6
SURG 265	Surgical Technology Clinical III	4
SURG 230	Professional Readiness	2
Total Hours		**63-64**

[1]

See recommended courses under each Area listed.

[2]

Students must complete all General Education & Program Pre-requisites to be accepted into the Surgical Technology program and enroll in SURG courses.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
Gen Ed Course - One course from either Area I, II, IV or VII [1]		4-3
Area III: Laboratory Science		4
CHEM 1120G or CHEM 1215G	Introduction to Chemistry Lecture and Laboratory (non majors) or General Chemistry I Lecture and Laboratory for STEM majors	
BIOL 2210	Human Anatomy and Physiology I for the Health Sciences	4

HIT 150	Introduction to Medical Terminology	3
	Hours	**15-14**
Spring		
BIOL 2225	Human Anatomy and Physiology II [1]	4
Gen Ed Course - One course from either Area I, II, IV or VII [1]		3
Gen Ed Course - One course from either Area I, II, IV or VII [1]		3-4
	Hours	**10-11**
Summer		
BIOL 2310 & 2310L	Microbiology and Microbiology Laboratory [3]	4
	Hours	**4**
Second Year		
Fall		
SURG 140	Introduction to Surgical Technology	4
SURG 145	Fundamentals of Perioperative Concepts & Techniques	5
SURG 155	Pharmacology for the Surgical Technology	2
SURG 150	Surgical Procedures I	5
	Hours	**16**
Spring		
SURG 120	Surgical Technology Clinical I	2-4
SURG 160	Surgical Procedures II	6
SURG 260	Surgical Technology Clinical II	4
	Hours	**12-14**
Summer		
SURG 230	Professional Readiness	2
SURG 265	Surgical Technology Clinical III	4
	Hours	**6**
	Total Hours	**63-65**

[1]

See the General Education section of the catalog for a full list of courses.

Welding Technology

The **Welding Technology** program provides specialized training to prepare students for entry-level positions as a welder. All aspects of welding are covered including oxy-acetylene welding and cutting, braze welding, arc welding, gas metal arc welding (GMAW), gas tungsten arc welding (GTAW) and pipe welding.

Graduation Requirements

Certificate in Welding Technology: A cumulative GPA of 2.0 or higher. A minimum of 9 credits earned toward the certificate must be completed at SENMC.

AAS in Welding Technology: ENGL 1110G Composition I with a C- or higher; placement into college-level math and reading courses or completion of developmental courses with a C- or higher; cumulative GPA of 2.0 or higher. A minimum of 15 of the 63 credits for the associate's degree must be completed at SENMC.

- Welding Technology - Associate of Applied Science (p. 169)
- Welding Technology - Certificate (p. 170)

WELD 100 Structural Welding I 6 Credits (6)
Development of basic skills in SMAW, OFC, and OFW in accordance with the AWS entry-level welder program. (3+6P)
View Course Outcomes

WELD 102 Welding Fundamentals 3 Credits (3)
Survey of welding and cutting processes for nonmajors. Classroom instruction and laboratory work with OFC/OFW, SMAW, GMAW, FCAW, and plasma arc cutting. (2+2P)
View Course Outcomes

WELD 105 Introduction to Welding 3 Credits (3)
Welding practices, procedures, and terminology. Welding safety, equipment types, electrode types in usage, joint design and testing procedures.
View Course Outcomes

WELD 110 Blueprint Reading (Welding) 3 Credits (3)
Interpretation of prints related to welding. Emphasis on AWS standard symbols for welding, brazing, and nondestructive examination.
Learning Outcomes
  1. Identify, recognize, and differentiate between an orthographic and isometric drawing also line type's structural shapes, pipe, and fittings on a print.
  2. Read, identify, and define scales sizes, tolerances, local and general notes, also read material lists and specifications.
  3. Read, compile materials and data, and construct using a blueprint. Identify weld size and position from the welding symbols, and produce a rough sketch for construction.

View Course Outcomes

WELD 115 Structural Welding II 6 Credits (6)
Continuation of WELD 100. Emphasis on AWS entry and advanced level welder skills with SMAW, including all-position welding with mild and stainless-steel electrodes. Plasma arc and air-carbon are cutting, metallurgy, heat treatment, and weld defects. (3+6P)
Prerequisite(s): WELD 100
View Course Outcomes

WELD 120 Basic Metallurgy 3 Credits (3)
Properties of ferrous and nonferrous materials. Service conditions and heat treatment of metals related to welding trade. Prerequisites: WELD 100.
View Course Outcomes

WELD 125 Introduction to Pipe Welding 3 Credits (3)
Pipe fit-up and welding techniques for pipe fitting and pipe weld joint using SMAW, GMAW, GTAW, and FCAW, 2G welding of pipe. (2+2P)
Prerequisite(s): WELD 100, WELD 130, and WELD 140
View Course Outcomes

WELD 126 Industrial Pipe Welding 3 Credits (3)
Enhancement of WELD 125. Development of more advanced pipe welding skills.
Prerequisite(s): WELD 110, WELD 130, and WELD 140
Corequisite(s): WELD 125
View Course Outcomes

WELD 130 Introduction to GMAW (MIG) 3 Credits (3)
Development of basic skills with gas metal arc welding (MIG) in accordance with AWS entry-level welder objectives. Wire electrodes, shielding/purge gases, and modes of metal transfer. (2+2P)
View Course Outcomes

WELD 140 Introduction to GTAW (TIG) 3 Credits (3)
Development for basic skills with gas tungsten are welding (TIG) in accordance with AWS entry/advanced welder objectives. Welding mild steel, tungsten electrode preparation, filler wire selection, and equipment set-up. (2+2P)
Learning Outcomes

View Course Outcomes

WELD 150 Pipe Welding II 3 Credits (3)
Continuation of WELD 125; with fillet and groove welded joints in a horizontal fixed and 45-degree fixed positions (5-F, 5-G, 6-F, 6-G). (2+2P)
Prerequisite(s): WELD 125
View Course Outcomes

WELD 151 Industrial Pipe Welding II 3 Credits (3)
Enhancement of WELD 150. Development of more advanced pipe welding skills. Emphasis on industry driven test.
Prerequisite(s): WELD 125 and WELD 126
Corequisite(s): WELD 150
Learning Outcomes
  1. Demonstrate… The use of a welding rod and Tig weld around a 6G pipe.
  2. Explain… Tig and stick machine set-up around a 6G pipe.
  3. Define… More advanced terminology used in the pipe welding profession.

View Course Outcomes

WELD 160 Introduction to SAW and FCAW 3 Credits (3)
Submerged arc and flux-cored arc welding. Demonstrations and practice with machine travel submerged arc welding (SAW), flux-cored arc welding (FCAW-G, FCAW-S) on mild steel plate and pipe. (2+2P)
View Course Outcomes

WELD 170 Welded Fabrication 3 Credits (3)
Development of fabrication skills including basic layout, measuring, and utilization of various welding processes including out-of-position welding. Use of common shop tools. Prerequisites: WELD 100, WELD 110, WELD 130, and OETS 104 or OETS 118. (1+4P)
Learning Outcomes

View Course Outcomes

WELD 180 GTAW II 3 Credits (3)
Continuation of WELD 140. Development of more advanced GTAW skills. Emphasis on pipe welding with mild steel, stainless steel, and aluminum. (2+2P)
Prerequisite(s): WELD 140
Learning Outcomes

View Course Outcomes

WELD 190 Welded Art 3 Credits (3)
Students explore the possibilities of welded art in the form of sculpture, jewelry, furniture and as a framework to support other art media. Offered as an elective for students who wish to create art using welding. (1+4P)
Prerequisite(s): WELD 102
Repeatable: up to 12 credits
View Course Outcomes

WELD 211 Welder Qualification 6 Credits (6)
Laboratory and classroom instruction on AWS and ASME Welder Performance Qualification Tests. All position plate and pipe techniques and tests for SMAW, GMAW, GTAW, FCAW, and SAW. Nondestructive and destructive examination methods. Basics of welding codes. Prerequisites: OETS 104 or OETS 118; and WELD 100, WELD 110, WELD 120, WELD 130, WELD 140, WELD 160 and WELD 180. Restricted to majors. (3+6P)
Learning Outcomes

1. Demonstrate the use of carbon electrodes in all 4 positions on 3/8" and 1" plate
2. Explain the testing procedures on 3/8" and 1" plate
3. Define all testing procedures to include destructive and dye testing

View Course Outcomes

WELD 221 Cooperative Experience I 1 Credit (1)
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student will meet in a weekly class. Graded S/U. Prerequisites: WELD 100. Restricted to majors. (3+6P)
View Course Outcomes

WELD 255 Special Problems in Welding Technology 6 Credits (6)
Individual studies in areas of welding technology.
Repeatable: for a maximum of 12 credits
View Course Outcomes

WELD 295 Special Topics 4 Credits (4)
Topics to be announced in the Schedule of Classes.
Repeatable: for a maximum of 12 credits
View Course Outcomes

Welding Technology - Associate of Applied Science

Students must complete all College degree requirements, which include: General Education requirements and elective credits to total at least 63-66 credits. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Code	Title	Hours
General Education		
Course required from Area I, II, IV, and VII and choose one course from Area III, V, or VI.		15-17
Area I: Communications		
ENGL 1110G	Composition I (Technical Requirement) [1]	
Area II: Mathematics		
Area III: Laboratory Science		
Area IV: Social/Behavioral Sciences		
Area V: Humanities		
Area VI: Creative and Fine Arts		
Area VII: Flexible 3 (General Education Elective)		
ENGL 2210G	Professional & Technical Communication (Technical Requirement) [1]	
Technical Requirements		
OETS 118	Mathematics for Technicians	3
WELD 100	Structural Welding I	6
WELD 105	Introduction to Welding	3
WELD 110	Blueprint Reading (Welding)	3
WELD 115	Structural Welding II	6
WELD 125	Introduction to Pipe Welding	3
WELD 126	Industrial Pipe Welding	3
WELD 130	Introduction to GMAW (MIG)	3
WELD 140	Introduction to GTAW (TIG)	3
WELD 150	Pipe Welding II	3
WELD 151	Industrial Pipe Welding II	3
WELD 170	Welded Fabrication	3
WELD 211	Welder Qualification	6
Total Hours		**63-65**

[1]
Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. Visit with an advisor for help with creating a customized plan.

Course	Title	Hours
First Year		
Fall		
WELD 100	Structural Welding I	6
WELD 105	Introduction to Welding	3
WELD 130	Introduction to GMAW (MIG)	3
WELD 140	Introduction to GTAW (TIG)	3
Area I: Communications		3-4
ENGL 1110G	Composition I (Technical Requirement) [1]	
	Hours	**18-19**
Spring		
WELD 115	Structural Welding II	6
WELD 125	Introduction to Pipe Welding	3
WELD 150	Pipe Welding II	3
Area VII: Flexible 3 (General Education Elective)		3
ENGL 2210G	Professional & Technical Communication (Technical Requirement) [1]	
	Hours	**15**
Summer		
WELD 170	Welded Fabrication	3
GEN Ed Course - One course from Areas II, V, or VI [1]		3
	Hours	**6**
Second Year		
Fall		
OETS 118	Mathematics for Technicians	3
WELD 110	Blueprint Reading (Welding)	3
WELD 126	Industrial Pipe Welding	3
Area III: Laboratory Science [1]		4
Area IV: Social/Behavioral Sciences		3
PSYC 1110G or SOCI 1110G	Introduction to Psychology or Introduction to Sociology	
	Hours	**16**
Spring		
WELD 151	Industrial Pipe Welding II	3

WELD 211	Welder Qualification	6
	Hours	**9**
	Total Hours	**64-65**

1

Course is a Technical Requirement and must be completed regardless of transfer credit awarded.

2

See the General Education section of the catalog for a full list of courses.

Welding Technology - Certificate

Code	Title	Hours
Technical Requirements		
WELD 100	Structural Welding I	6
WELD 105	Introduction to Welding	3
WELD 110	Blueprint Reading (Welding)	3
WELD 115	Structural Welding II	6
WELD 125	Introduction to Pipe Welding	3
WELD 130	Introduction to GMAW (MIG)	3
WELD 140	Introduction to GTAW (TIG)	3
WELD 150	Pipe Welding II	3
Total Hours		**30**

A Suggested Plan of Study

Additional classes may be needed based on placement test results and course prerequisites. *Visit with an advisor for help with creating a customized plan.*

Course	Title	Hours
First Year		
Fall		
WELD 100	Structural Welding I	6
WELD 125	Introduction to Pipe Welding	3
WELD 130	Introduction to GMAW (MIG)	3
	Hours	**12**
Spring		
WELD 115	Structural Welding II	6
WELD 150	Pipe Welding II	3
WELD 105	Introduction to Welding	3
	Hours	**12**
Second Year		
Fall		
WELD 110	Blueprint Reading (Welding)	3
WELD 140	Introduction to GTAW (TIG)	3
	Hours	**6**
	Total Hours	**30**

General Education Requirements

The New Mexico General Education Requirements

New Mexico updated its model of general education to focus on the essential skills that are needed by today's college graduates to be successful as they pursue advanced degrees and/or careers. The following is a listing of general education courses specifically approved for SENMC.

Code	Title	Hours
Area I: Communications		
ACOM 1130G	Effective Leadership and Communication in Agriculture	3
COMM 1115G	Introduction to Communication	3
COMM 1130G	Public Speaking	3
ENGL 1110G	Composition I	4
ENGL 2130G	Advanced Composition	3
ENGL 2210G	Professional & Technical Communication	3
ENGL 2215G	Advanced Technical and Professional Communication	3
ENGL 2221G	Writing in the Humanities and Social Science	3
Area II: Mathematics		
MATH 1130G	Survey of Mathematics	3
MATH 1220G	College Algebra	3
MATH 1250G	Trigonometry & Pre-Calculus	4
MATH 1350G	Introduction to Statistics	3
MATH 1430G	Applications of Calculus I	3
MATH 1511G	Calculus and Analytic Geometry I	4
MATH 1521G	Calculus and Analytic Geometry II	4
MATH 2134G	Fundamentals of Elementary Math II	3
MATH 2350G	Statistical Methods	3
MATH 2530G	Calculus III	3
Area III: Laboratory Science		
AGRO 1110G	Introduction to Plant Science (Lecture & Laboratory)	4
ANTH 1135G & ANTH 1135L	Introduction to Biological Anthropology and Introduction to Biological Anthropology Laboratory	4
ASTR 1115G	Introduction to Astronomy (Lec+Laboratory)	4
ASTR 1120G	The Planets	4
BIOL 1120G & BIOL 1120L	Human Biology and Human Biology Laboratory	4
BIOL 1130G	Introductory Anatomy & Physiology (non majors)	4
BIOL 1190G	Contemporary Problems in Biology	4
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Laboratory	4
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
CHEM 1120G	Introduction to Chemistry Lecture and Laboratory (non majors)	4
CHEM 1216	General Chemistry I	4
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4
C S 171G	Introduction to Computer Science	4
ENVS 1110G	Environmental Science I	4
EPWS 1110G & EPWS 1110L	Applied Biology and Applied Biology Laboratory	4
FSTE 2110G	Food Science I	4
FWCE 1110G	Introduction to Natural Resources Management	4

GEOG 1110G	Physical Geography	4
GEOL 1110G	Physical Geology	4
HNRS 1135G & HNRS 1135L	Introduction to Biological Anthropology and Introduction to Biological Anthropology Lab	4
HNRS 2116G	Earth, Time and Life	4
PHYS 1115G	Survey of Physics with Laboratory	4
PHYS 1125G	The Physics of Music	4
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-based Physics I Laboratory	4
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-based Physics II Laboratory	4
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus - Based Physics I Laboratory	4
PHYS 1320G & PHYS 1320L	Calculus-Based Physics II and Calculus-Based Physics II Laboratory	4
PHYS 2230G & PHYS 2230L	General Physics for Life Sciences I and Laboratory to General Physics for Life Sciences I	4
PHYS 2240G & PHYS 2240L	General Physics for Life Sciences II and Laboratory to General Physics for Life Sciences II	4

Area IV: Social/Behavioral Sciences

AEEC 2130G	Survey of Food and Agricultural Issues	3
ANTH 1115G	Introduction to Anthropology	3
ANTH 1137G	Human Ancestors	3
ANTH 1140G	Introduction to Cultural Anthropology	3
ANTH 1160G	World Archaeology	3
ANTH 2140G	Indigenous Peoples of North America	3
BUSA 2230G	Human Relations in Business	3
CEPY 1120G	Human Growth and Behavior	3
CJUS 1110G	Introduction to Criminal Justice	3
ECON 1110G	Survey of Economics	3
ECON 2110G	Macroeconomic Principles	3
ECON 2120G	Microeconomic Principles	3
FSTE 2130G	Survey of Food and Agricultural Issues	3
GEOG 1120G	World Regional Geography	3
GEOG 1130G	Human Geography	3
GNDR 2110G	Introduction to Women, Gender, and Sexuality Studies	3
GNDR 2120G	Representing Woman Across Cultures	3
HNRS 2161G	Window of Humanity	3
HNRS 2170G	The Human Mind	3
HNRS 2172G	Archaeology: Search for the Past	3
HNRS 2180G	Citizen and State Great Political Issues	3
HRTM 1120G	Introduction to Tourism	3
LING 2110G	Introduction to the Study of Language and Linguistics	3
PHLS 1110G	Personal Health & Wellness	3
POLS 1110G	Introduction to Political Science	3
POLS 1120G	American National Government	3
POLS 1130G	Issues in American Politics	3
POLS 2120G	International Relations	3
PSYC 1110G	Introduction to Psychology	3
SOCI 1110G	Introduction to Sociology	3

SOCI 2310G	Contemporary Social Problems	3
SOWK 2110G	Introduction to Human Services and Social Work	3

Area V: Humanities

AFST 1110G	Introduction to Africana Studies	3
AFST 2110G	African American History	3
AFST 2140G	Black Women in the African Diaspora	3
ENGL 1410G	Introduction to Literature	3
ENGL 2520G	Film as Literature	3
ENGL 2650G	World Literature I	3
FREN 2120G	French IV	3
HIST 1105G	Making History	3
HIST 1110G	United States History I	3
HIST 1120G	United States History II	3
HIST 1130G	World History I	3
HIST 1122	History of Latinos in the U.S.	3
HIST 1140G	World History II	3
HIST 1150G	Western Civilization I	3
HIST 1160G	Western Civilization II	3
HIST 2245G	Islamic Civilizations to 1800	3
HIST 2246G	Islamic Civilizations since 1800	3
HIST 2250G	East Asia to 1600	3
HIST 2251G	East Asia since 1600	3
HNRS 2110G	The Present in the Past: Contemporary Issues and their Historical Roots	3
HNRS 2117G	The World of the Renaissance: Discovering the Modern	3
HNRS 2120G	Foundations of Western Culture	3
HNRS 2140G	Plato and the Discovery of Philosophy	3
HNRS 2141G	Bamboo and Silk: The Fabric of Chinese Literature	3
HNRS 2145G	Celtic Literature	3
HNRS 2160G	New Testament as Literature	3
HNRS 2165G	Introduction to Humanities in the 21st Century	3
HNRS 2171G	The Worlds of Arthur	3
HNRS 2173G	Medieval Understandings: Literature and Culture in the Middle Ages	3
HNRS 2185G	Democracies, Despots and Daily Life	3
HNRS 2190G	Claiming a Multiracial Past	3
NATV 1150G	Introduction to Native American Studies	3
PHIL 1115G	Introduction to Philosophy	3
PHIL 1120G	Logic, Reasoning, and Critical Thinking	3
PHIL 1140G	Quest for God	3
PHIL 1145G	Philosophy, Law, and Ethics	3
PHIL 2110G	Introduction to Ethics	3
PHIL 2230G	Philosophical Thought	3

Area VI: Creative and Fine Arts

ARTH 1115G	Orientation in Art	3
ARTH 2110G	History of Art I	3
ARTH 2120G	History of Art II	3
ARTS 1145G	Visual Concepts	3
DANC 1110G	Dance Appreciation	3
ENGL 2310G	Introduction to Creative Writing	3
HNRS 2114G	Music in Time and Space	3
HNRS 2115G	Encounters with Art	3

HNRS 2130G	Shakespeare on Film	3
HNRS 2178G	Theatre: Beginnings to Broadway	3
MUSC 1110G	Music Appreciation: Jazz	3
MUSC 1130G	Music Appreciation: Western Music	3
THEA 1110G	Introduction to Theatre	3
THEA 1210G	Acting for Non-Majors	3
Area VII: Flexible 3 (General Education Elective) [1]		
All courses from AREA I, II, III, IV, V, VI and/or [1]		
ENGR 100 G	Introduction to Engineering	

[1]

All courses listed above can be selected to fulfil this requirement that have not been used to fulfill one of those requirements.

COMMON COURSE NUMBERING CROSSWALK

Current Course	Past Course	Course Type Indicator
Accounting		
ACCT 1125	ACCT 101	Common
ACCT 1150	BOT 205/OATS 205	Common
ACCT 1210	BMGT 150	Common
ACCT 1410	BOT 244/OATS 244	Common
ACCT 2110	ACCT 221	Common
ACCT 2110X	BOT 120/OATS 120	Common
ACCT 2110Y	BOT 121/OATS 121	Common
ACCT 2115	ACCT 200	Common
ACCT 2120	ACCT 222	Common
ACCT 2170	BOT 140/OATS 140	Common
ACCT 2210	BOT 206/OATS 206	Common
ACCT 2320	BOT 240/OATS 240	Common
ACCT 2520	BOT 241/OATS 241	Common
ACCT 2999	BOT 260/OATS 260	Common
Agricultural Economics		
AEEC 1110	AG E 100	Common
AEEC 1120	AG E 101	Common
AEEC 2110	AG E 236	Common
AEEC 2120	AG E 260	Common
AEEC 2130G	AG E 210G	Common
AEEC 2140	AG E 250	Common
AEEC 2996	AG E 200	Common
Agricultural and Extension Education		
AXED 1110	AXED 100	Common
AXED 1130	AXED 105	Common
AXED 2110	AXED 205	Common
AXED 2130	AXED 230	Common
AXED 2140	AXED 232	Common
AXED 2996	AXED 200	Common
Agriculture Communications		
ACOM 1110	AXED 1120/AXED 240	Common
ACOM 1130G	AXED 2120G/AXED 201G	Common
Agronomy		
AGRO 1110G	AGRO 100G	Common
AGRO 2160	AGRO 250	Common
AGRO 2996	AGRO 200	Common
Animal Science		
ANSC 1110	ANSC 220	Common
ANSC 1120	ANSC 100	Common
ANSC 1120H	ANSC 100 H	Common
ANSC 1120L	ANSC 100 L	Common
ANSC 1130	ANSC 190	Common
ANSC 1140	ANSC 205	Common
ANSC 1160	ANSC 103	Common
ANSC 1170	ANSC 261	Common

ANSC 1180	ANSC 112	Common
ANSC 2120	ANSC 288	Common
ANSC 2130	ANSC 290	Common
ANSC 2140	ANSC 285	Common
ANSC 2150	ANSC 289	Common
ANSC 2310	ANSC 262	Common
ANSC 2330	ANSC 200	Common
ANSC 2340	ANSC 201	Common
ANSC 2996	ANSC 250	Common
Anthropology		
ANTH 1115G	ANTH 201G	Common
ANTH 1135G	ANTH 130G	Common
ANTH 1135L	ANTH 130GL	Common
ANTH 1136	ANTH 118	Common
ANTH 1137G	ANTH 120G	Common
ANTH 1140G	ANTH 125G	Common
ANTH 1160G	ANTH 202G	Common
ANTH 2140G	ANTH 115	Common
ANTH 2150	ANTH 116	Common
ANTH 2996	ANTH 297	Common
Architecture		
ARCH 1105	ARCT 150	Common
ARCH 1110	ARCT 104	Common
ARCH 1112	ARCT 124	Common
ARCH 1114	ARCT 154	Common
ARCH 1120	ARCT 101	Common
ARCH 1121	ARCT 170	Common
ARCH 1122	ARCT 204	Common
ARCH 1220	ARCT 111	Common
ARCH 2111	ARCT 210	Common
ARCH 2113	ARCT 224	Common
ARCH 2114	ARCT 250	Common
ARCH 2115	ARCT 254	Common
ARCH 2116	ARCT 260	Common
ARCH 2122	ARCT 274	Common
ARCH 2124	ARCT 295	Common
ARCH 2220	ARCT 211	Common
ARCH 2994	ARCT 264	Common
ARCH 2995	ARCT 291	Common
ARCH 2996	ARCT 290	Common
Art History		
ARTH 1115G	ART 101G	Common
ARTH 2110G	ART 295G	Common
ARTH 2120G	ART 296G	Common
ARTH 2136	ARTS 2671	Common
Art Studio		
ARTS 1121	ART 125	Common
ARTS 1145G	ART 110G	Common
ARTS 1240	ART 155	Common
ARTS 1250	ART 156	Common
ARTS 1310	ART 275	Common
ARTS 1320	ART 276	Common

ARTS 1410	ART 270	Common
ARTS 1520	ART 161/ART 272	Common
ARTS 1610	ART 150	Common
ARTS 1610	ART 250	Common
ARTS 1630	ART 260	Common
ARTS 1710	ART 280	Common
ARTS 1711	ART 160	Common
ARTS 1712	ART 163	Common
ARTS 1713	ART 165	Common
ARTS 1810	ART 285	Common
ARTS 2010	ART 267	Common
ARTS 2355	ART 286	Common
ARTS 2410	OEPT 100	Common
ARTS 2430	OEPT 155	Common
ARTS 2431	ART 255	Common
ARTS 2440	OEPT 120	Common
ARTS 2610	ART 151	Common
ARTS 2611	ART 269	Common
ARTS 2616	ART 252	Common
ARTS 2630	ART 261	Common
ARTS 2635	ART 262	Common
ARTS 2839	ART 265	Common
ARTS 2993	ART 208	Common
ARTS 2996	ART 294	Common
Astronomy		
ASTR 1115G	ASTR 110G	Common
ASTR 1116	ASTR 199	Common
ASTR 1120G	ASTR 105G	Common
Bilingual Education		
BLED 1110	EDUC 103	Common
BLED 2110	EDUC 204	Common
Biology		
BIOL 1120G	BIOL 101G	Common
BIOL 1120L	BIOL 101GL	Common
BIOL 1130G	BIOL 154	Common
BIOL 1190G	BIOL 110G	Common
BIOL 1996	BIOL 150	Common
BIOL 2110G	BIOL 211G	Common
BIOL 2110L	BIOL 211GL	Common
BIOL 2210C	BIOL 225	Common
BIOL 2221	BIOL 254	Common
BIOL 2225C	BIOL 226	Common
BIOL 2310	BIOL 221	Common
BIOL 2310L	BIOL 221 L	Common
BIOL 2320	BIOL 219	Common
BIOL 2505	BIOL 227	Common
BIOL 2511	BIOL 262	Common
BIOL 2512	BIOL 263	Common
BIOL 2610G	BIOL 111G	Common
BIOL 2610L	BIOL 111GL	Common
BIOL 2996	BIOL 250	Common
Business Admistration		

BUSA 1110	BMGT 110	Common
BUSA 1115	BOT 105/OATS 105	Common
BUSA 1180	BOT 106/BMGT 216/	
BUSA 1210	BOT 110/OATS 110	Common
BUSA 2120	BUSA 111	Common
BUSA 2175	BOT 239/OATS 239	Common
BUSA 2230	BGMT 240	Common
BUSA 2250	BMGT 201	Common
BUSA 2999	BMGT 290	Common
Business Computer Systems		
BCIS 1110	BCIS 110/C S 110	Common
Business Finance		
BFIN 1210	BMGT 112	Common
BFIN 2110	FIN 206/FIN 210	Common
Business Law		
BLAW 2110	BLAW 230/BMGT 231	Common
Chemistry		
CHEM 1111	CHEM 100	Common
CHEM 1120G	CHEM 110G	Common
CHEM 1121	CHEM 101	Common
CHEM 1122	CHEM 102	Common
CHEM 1123	CHEM 103	Common
CHEM 1215G	CHEM 111G	Common
CHEM 1216C	CHEM 115	Common
CHEM 1225G	CHEM 112G	Common
CHEM 1226C	CHEM 116	Common
CHEM 2111	CHEM 242	Common
CHEM 2115	CHEM 211	Common
CHEM 2120	CHEM 210	Common
CHEM 2226	CHEM 217	Common
CHEM 2991	CHEM 241	Common
CHEM 2996	CHEM 251	Common
Child Advocacy Studies		
CAST 1110	CAST 201	Common
CAST 2110	CAST 202	Common
CAST 2120	CAST 203	Common
Chinese		
CHIN 1110	CHIN 111	Common
CHIN 1120	CHIN 112	Common
CHIN 2110	CHIN 211	Common
CHIN 2120	CHIN 212	Common
Clothing Textiles Fashion Merchandise Design		
CTFM 1110	CTFM 178	Common
CTFM 2120	CTFM 270	Common
CTFM 2130	CTFM 273	Common
CTFM 2990	CTFM 202	Common
Communication		
COMM 1115G	COMM 265G	Common
COMM 1130G	COMM 253G	Common
COMM 2110	COMM 285	Common
COMM 2111	COMM 250	Common
COMM 2996	COMM 291	Common

COMM 2997	COMM 290	Common
Community Health/Social Services		
CHSS 1110	CHSS 101	Common
CHSS 2510	CHSS 299	Common
CHSS 2511	CHSS 295	Common
Counseling & Educational Psychology		
CEPY 1120G	C EP 110G	Common
CEPY 1150	C EP 199	Common
CEPY 2110	C EP 210	Common
CEPY 2120	C EP 215	Common
CEPY 2130	C EP 240	Common
CEPY 2140	C EP 298	Common
CEPY 2140H	C EP 298 H	Common
Criminal Justice		
CJUS 1110G	C J 101G	Common
CJUS 1120	C J 205	Common
CJUS 1996	C J 199	Common
CJUS 2120	C J 250	Common
CJUS 2140	C J 221	Common
CJUS 2150	C J 230	Common
CJUS 2160	C J 293	Common
CJUS 2220	C J 210	Common
Dance		
DANC 1110G	DANC 101G	Common
DANC 1130	DANC 123	Common
DANC 1131	DANC 125	Common
DANC 1135	DANC 109	Common
DANC 1140	DANC 129	Common
DANC 1150	DANC 126	Common
DANC 1155	DANC 102	Common
DANC 1185	DANC 121	Common
DANC 1220	DANC 122	Common
DANC 1235	DANC 118	Common
DANC 2114	DANC 204	Common
DANC 2130	DANC 223	Common
DANC 2130L	DANC 223 L	Common
DANC 2140	DANC 229	Common
DANC 2140L	DANC 229 L	Common
DANC 2142	DANC 210	Common
DANC 2142L	DANC 210 L	Common
DANC 2150	DANC 226	Common
DANC 2150L	DANC 226 L	Common
DANC 2155	DANC 207	Common
DANC 2157	DANC 212	Common
DANC 2161	DANC 227	Common
DANC 2250	DANC 205	Common
DANC 2251	DANC 206	Common
DANC 2265	DANC 289	Common
DANC 2270	DANC 280	Common
DANC 2310	DANC 222	Common
DANC 2311	DANC 225	Common
DANC 2320	DANC 232	Common

DANC 2321	DANC 235	Common
Early Childhood Education		
ECED 1110	ECED 115	Common
ECED 1115	ECED 125	Common
ECED 1120	ECED 265	Common
ECED 1125	ECED 255	Common
ECED 1130	ECED 135	Common
ECED 2110	ECED 245	Common
ECED 2115	ECED 235	Common
ECED 2120	ECED 215	Common
ECED 2121	ECED 220	Common
ECED 2130	ECED 225	Common
ECED 2131	ECED 230	Common
ECED 2140	ECED 275	Common
ECED 2141	ECED 276	Common
ECED 2215	ECED 270	Common
ECED 2280	ECED 280	Common
ECED 2281	ECED 281	Common
Economics		
ECON 1110G	ECON 201G	Common
ECON 2110G	ECON 251G	Common
ECON 2110H	ECON 251GH	Common
ECON 2120G	ECON 252G	Common
ECON 2120H	ECON 252GH	Common
Education		
EDUC 1110	EDUC 101	Common
EDUC 1120	EDUC 250	Common
EDUC 1140	EDUC 150	Common
EDUC 1150	EDUC 151	Common
EDUC 1185	EDUC 281	Common
EDUC 1995	EDUC 181	Common
EDUC 1996	EDUC 195	Common
EDUC 1998	EDUC 102	Common
EDUC 2710	EDUC 219	Common
EDUC 2998	EDUC 202	Common
Educational Leadership Adminstration		
ELAD 2210	ELA 255	Common
ELAD 2340	ELA 215	Common
ELAD 2996	ELA 298	Common
Educational Technology		
EDLT 2110	EDLT 268	Common
English		
ENGL 1105M	SPCD 1110	Common
ENGL 1110G	ENGL 111G	Common
ENGL 1110H	ENGL 111GH	Common
ENGL 1110M	ENGL 111 M	Common
ENGL 1120	ENGL 112	Common
ENGL 1410G	ENGL 115G	Common
ENGL 2130G	ENGL 311G	Common
ENGL 2210G	ENGL 203G	Common
ENGL 2210G	ENGL 218G	Common
ENGL 2215G	ENGL 318G	Common

ENGL 2221G	ENGL 211G	Common
ENGL 2280	ENGL 263	Common
ENGL 2310G	ENGL 220G	Common
ENGL 2381	ENGL 232	Common
ENGL 2382	ENGL 235	Common
ENGL 2520G	ENGL 116G	Common
ENGL 2521	ENGL 243	Common
ENGL 2610	ENGL 251	Common
ENGL 2620	ENGL 252	Common
ENGL 2630	ENGL 271	Common
ENGL 2640	ENGL 272	Common
ENGL 2650G	ENGL 244G	Common
ENGL 2996	ENGL 299	Common
Entology/Plant Pathology/Weed Science		
EPWS 1110	EPWS 100	Common
EPWS 1110L	EPWS 100 L	Common
EPWS 2996	EPWS 200	Common
Entrepreneurship		
ENTR 1110	BMGT 275	Common
Environmental Science		
ENVS 1110G	E S 110G	Common
ENVS 2111	E S 256	Common
ENVS 2111L	E S 256 L	Common
Family and Child Studies		
FCST 1130	FCS 181	Common
FCST 2110	FCS 210	Common
FCST 2135	FCS 212	Common
FCST 2140	FCS 213	Common
Family and Consumer Sciences		
FCSC 2250	FCSE 245	Common
FCSC 2330	FCSE 235	Common
Film & Digital Media Arts		
FDMA 1110	CMT 170	Common
FDMA 1120	CMT 140	Common
FDMA 1210	CMT 190	Common
FDMA 1220	CMI 216	Common
FDMA 1220	CMT 195	Common
FDMA 1260	CMT 108	Common
FDMA 1260	CMT 120	Common
FDMA 1360	CMT 130	Common
FDMA 1410	CMT 247	Common
FDMA 1415	CMT 206	Common
FDMA 1510	CMI 260	Common
FDMA 1510	CMT 135	Common
FDMA 1515	CMT 145	Common
FDMA 1531	CMT 151	Common
FDMA 1535	CMT 142	Common
FDMA 1536	CMT 242	Common
FDMA 1545	CMT 115	Common
FDMA 1555	CMI 100	Common
FDMA 1630	CMT 180	Common
FDMA 1710	CMT 150	Common

FDMA 1715	CMI 245	Common
FDMA 1720	CMT 175	Common
FDMA 1996	CMT 155	Common
FDMA 2111	CMT 220	Common
FDMA 2120	CMT 126	Common
FDMA 2125	CMT 156	Common
FDMA 2150	CMT 240	Common
FDMA 2210	CMT 210	Common
FDMA 2241	CMT 258	Common
FDMA 2285	CMT 215	Common
FDMA 2287	CMT 223	Common
FDMA 2310	CMI 228	Common
FDMA 2311	CMI 231	Common
FDMA 2311	CMT 253	Common
FDMA 2312	CMT 254	Common
FDMA 2325	CMT 245	Common
FDMA 2326	CMT 216	Common
FDMA 2360	CMT 230	Common
FDMA 2365	CMT 235	Common
FDMA 2370	CMT 275	Common
FDMA 2381	CMI 232	Common
FDMA 2382	CMI 235	Common
FDMA 2410	CMT 236	Common
FDMA 2510	CMI 200	Common
FDMA 2520	CMI 205	Common
FDMA 2520	CMT 205	Common
FDMA 2530	CMI 280	Common
FDMA 2530	CMT 160	Common
FDMA 2535	CMI 240	Common
FDMA 2570	CMT 292	Common
FDMA 2710	CMI 250	Common
FDMA 2715	CMT 260	Common
FDMA 2720	CMI 290	Common
FDMA 2725	CMI 270	Common
FDMA 2730	CMT 227	Common
FDMA 2735	CMT 290	Common
FDMA 2740	CMT 291	Common
FDMA 2745	CMI 233	Common
FDMA 2750	CMT 229	Common
FDMA 2755	CMI 220	Common
FDMA 2770	CMT 200	Common
FDMA 2775	CMT 252	Common
FDMA 2785	CMT 228	Common
FDMA 2993	CMT 276	Common
FDMA 2994	CMT 295	Common
FDMA 2995	CMT 226	Common
FDMA 2996	CMT 255	Common
FDMA 2997	CMT 298	Common
FDMA 2998	CMT 221	Common
First Year Experience		
FYEX 1110	COLL 101	Common
FYEX 1112	UNIV 150	Common

FYEX 1116	COLL 103	Common
FYEX 1117	UNIV 114	Common
FYEX 1131	UNIV 110	Common
FYEX 1132	UNIV 112	Common
FYEX 1133	COLL 108	Common
FYEX 1134	UNIV 113	Common
FYEX 1140	COLL 120	Common
FYEX 1160	UNIV 101	Common
FYEX 1170	UNIV 161	Common
FYEX 1995	UNIV 116	Common
FYEX 1996	COLL 155	Common
FYEX 2111	COLL 201	Common
FYEX 2994	COLL 185	Common
Fish, Wildlife, Conservation Ecology		
FWCE 1110G	FWCE 110G	Common
FWCE 1120	FWCE 109	Common
FWCE 2110	FWCE 255	Common
Food Science & Technology		
FSTE 1120	FSTE 175	Common
FSTE 2110G	FSTE 263G	Common
FSTE 2120	FSTE 275	Common
FSTE 2130G	FSTE 210G	Common
FSTE 2996	FSTE 200	Common
French		
FREN 1110	FREN 111	Common
FREN 1120	FREN 112	Common
FREN 2110	FREN 211	Common
FREN 2120	FREN 212	Common
Geography		
GEOG 1110G	GEOG 111G	Common
GEOG 1120G	GEOG 112G	Common
GEOG 1130G	GEOG 120G	Common
GEOG 2130	GEOG 281	Common
GEOG 2996	GEOG 291	Common
Geology		
GEOL 1110G	GEOL 111G	Common
GEOL 2130	GEOG 257	Common
GEOL 2996	GEOL 220	Common
German		
GRMN 1110	GER 111	Common
GRMN 1120	GER 112	Common
GRMN 2110	GER 211	Common
GRMN 2120	GER 212	Common
History		
HIST 1105G	HIST 110G	Common
HIST 1110G	HIST 201G	Common
HIST 1120G	HIST 202G	Common
HIST 1130G	HIST 111G	Common
HIST 1140G	HIST 112G	Common
HIST 1150G	HIST 101G	Common
HIST 1160G	HIST 102G	Common
HIST 2110	HIST 261	Common

HIST 2245G	HIST 221G	Common
HIST 2246G	HIST 222G	Common
HIST 2250G	HIST 211G	Common
HIST 2251G	HIST 212G	Common
HIST 2996	HIST 269	Common
Honors		
HNRS 1110	HON 115	Common
HNRS 2110G	HON 210	Common
HNRS 2111	HON 214	Common
HNRS 2114G	HON 208G	Common
HNRS 2115G	HON 216G	Common
HNRS 2116G	HON 219G	Common
HNRS 2117G	HON 220G	Common
HNRS 2120G	HON 222G	Common
HNRS 2140G	HON 227G	Common
HNRS 2141G	HON 230G	Common
HNRS 2150G	HON 228G	Common
HNRS 2160G	HON 229G	Common
HNRS 2161G	HON 235G	Common
HNRS 2170G	HON 232G	Common
HNRS 2171G	HON 234G	Common
HNRS 2172G	HON 237G	Common
HNRS 2173G	HON 239G	Common
HNRS 2174G	HON 249G	Common
HNRS 2175G	HON 265G	Common
HNRS 2178G	HON 270G	Common
HNRS 2180G	HON 248G	Common
HNRS 2185G	HON 211	Common
HNRS 2190G	HON 242G	Common
HNRS 2996	HON 221	Common
Horticulture		
HORT 1115G	HORT 100G	Common
HORT 2110	HORT 210	Common
HORT 2120	HORT 211	Common
HORT 2130	HORT 240	Common
HORT 2160	HORT 250	Common
HORT 2990	HORT 241	Common
HORT 2996	HORT 200	Common
Hotel/Restaurant/Tourism Management		
HRTM 1120G	HRTM 201	Common
HRTM 1130	HRTM 221	Common
HRTM 2110	HRTM 231	Common
HRTM 2120	HRTM 263	Common
HRTM 2130	HRTM 235	Common
HRTM 2996	HRTM 200	Common
Human Services		
HMSV 2110	S WK 253	Common
Japanese		
JAPN 1110	JPNS 111	Common
JAPN 1120	JPNS 112	Common
JAPN 2110	JPNS 211	Common
JAPN 2120	JPNS 212	Common

Linguistics

LING 2110G	LING 200G	Common

Management

MGMT 2110	MGT 201	Common

Marketing

MKTG 2110	BMGT 210	Common
MKTG 2110	MKTG 203	Common

Mathematics

MATH 1130G	MATH 210G	Common
MATH 1134	MATH 111	Common
MATH 1215	MATH 120	Common
MATH 1217	MATH 101	Common
MATH 1220G	MATH 121G	Common
MATH 1221	MATH 102	Common
MATH 1250G	MATH 190G	Common
MATH 1350G	A ST 251G	Common
MATH 1350G	STAT 251G	Common
MATH 1430G	MATH 142G	Common
MATH 1435	MATH 235	Common
MATH 1440	MATH 236	Common
MATH 1511G	MATH 191G	Common
MATH 1521G	MATH 192G	Common
MATH 1521H	MATH 192GH	Common
MATH 1531	MATH 279	Common
MATH 1996	MATH 107	Common
MATH 2134G	MATH 112G	Common
MATH 2234	MATH 215	Common
MATH 2350G	STAT 271G	Common
MATH 2415	MATH 280	Common
MATH 2530G	MATH 291G	Common
MATH 2992	MATH 200	Common

Music

MUSC 1110G	MUS 201G	Common
MUSC 1130G	MUS 101G	Common
MUSC 1210	MUS 102	Common
MUSC 1310	MUS 121	Common
MUSC 1410	MUS 250	Common
MUSC 1440	MUS 141	Common
MUSC 1450	MUS 103	Common
MUSC 1451	MUS 104	Common
MUSC 1460	MUS 105	Common
MUSC 1461	MUS 106	Common
MUSC 1470	MUS 145	Common
MUSC 1471	MUS 146	Common
MUSC 1472	MUS 147	Common
MUSC 1992	MUS 130	Common
MUSC 2110	MUS 164	Common
MUSC 2110	MUS 171	Common
MUSC 2120	MUS 151	Common
MUSC 2120	MUS 160	Common
MUSC 2120	MUS 161	Common
MUSC 2120	MUS 162	Common

MUSC 2120	MUS 170	Common
MUSC 2120	MUS 172	Common
MUSC 2120	MUS 180	Common
MUSC 2120	MUS 181	Common
MUSC 2130	MUS 163	Common
MUSC 2132	MUS 174	Common
MUSC 2151	MUS 202	Common
MUSC 2210	MUS 262	Common
MUSC 2220	MUS 263	Common
MUSC 2240	MUS 207	Common
MUSC 2310	MUS 273	Common
MUSC 2451	MUS 203	Common
MUSC 2452	MUS 204	Common
MUSC 2460	MUS 205	Common
MUSC 2461	MUS 206	Common
MUSC 2470	MUS 261	Common
MUSC 2510	MUS 230	Common
MUSC 2993	MUS 251	Common
MUSC 2996	MUS 260	Common
Nursing		
NURS 1110	NURS 110	Common
Nutrition		
NUTR 2110	HNDS 251	Common
NUTR 2120	HNDS 201	Common
Office Admisistration Technology Systems		
OATS 106	Common	
OATS 101	BOT 101	N/A
OATS 102	BOT 102	N/A
OATS 105	BOT 105	N/A
OATS 106	BOT 106	N/A
OATS 110	BOT 110	N/A
OATS 150	BOT 150	N/A
OATS 169	BOT 169	N/A
OATS 170	BOT 170	N/A
OATS 171	BOT 171	N/A
OATS 191	BOT 191	N/A
OATS 202	BOT 202	N/A
OATS 203	BOT 203	N/A
OATS 207	BOT 207	N/A
OATS 208	BOT 208	N/A
OATS 209	BOT 209	N/A
OATS 211	BOT 211	N/A
OATS 213	BOT 213	N/A
OATS 214	BOT 214	N/A
OATS 215	BOT 215	N/A
OATS 217	BOT 217	N/A
OATS 218	BOT 218	N/A
OATS 220	BOT 220	N/A
OATS 221	BOT 221	N/A
OATS 222	BOT 222	N/A
OATS 223	BOT 223	N/A
OATS 228	BOT 228	N/A

OATS 233	BOT 233	N/A
OATS 239	BOT 239	N/A
OATS 250	BOT 250	N/A
OATS 255	BOT 255	N/A
OATS 270	BOT 270	N/A
Philosophy		
PHIL 1115G	PHIL 101G	Common
PHIL 1120G	PHIL 211G	Common
PHIL 1140G	PHIL 136G	Common
PHIL 1145G	PHIL 100G	Common
PHIL 1155G	PHIL 124G	Common
PHIL 2110G	PHIL 223G	Common
PHIL 2230G	PHIL 201G	Common
Physical Education		
PHED 1110	P E 128	Common
PHED 1230	P E 147	Common
PHED 1230	P E 148	Common
PHED 1230	P E 150	Common
PHED 1290	P E 112	Common
PHED 1290	P E 113	Common
PHED 1290	P E 114	Common
PHED 1290	P E 115	Common
PHED 1290	P E 117	Common
PHED 1290	P E 166	Common
PHED 1310	P E 130	Common
PHED 1320	P E 131	Common
PHED 1410	P E 199	Common
PHED 1430	P E 109	Common
PHED 1510	P E 102	Common
PHED 1510	P E 103	Common
PHED 1510	P E 127	Common
PHED 1620	P E 205	Common
PHED 1630	P E 104	Common
PHED 1670	P E 129	Common
PHED 1710	P E 154	Common
PHED 1710	P E 159	Common
PHED 1830	P E 173	Common
PHED 1910	P E 263	Common
PHED 2996	P E 270	Common
Physics		
PHYS 1111	PHYS 150	Common
PHYS 1112	PHYS 210	Common
PHYS 1115G	PHYS 110G	Common
PHYS 1125G	PHYS 120G	Common
PHYS 1230G	PHYS 211G	Common
PHYS 1230L	PHYS 211GL	Common
PHYS 1240G	PHYS 212G	Common
PHYS 1240L	PHYS 212GL	Common
PHYS 1310G	PHYS 215G	Common
PHYS 1310L	PHYS 215GL	Common
PHYS 1311	PHYS 205	Common
PHYS 1320G	PHYS 216G	Common

PHYS 1320L	PHYS 216GL	Common
PHYS 1321	PHYS 206	Common
PHYS 2110	PHYS 213	Common
PHYS 2110L	PHYS 213 L	Common
PHYS 2111	PHYS 203	Common
PHYS 2120	PHYS 217	Common
PHYS 2120L	PHYS 217 L	Common
PHYS 2121	PHYS 218	Common
PHYS 2140	PHYS 214	Common
PHYS 2140L	PHYS 214 L	Common
PHYS 2141	PHYS 204	Common
PHYS 2230G	PHYS 221G	Common
PHYS 2230L	PHYS 221GL	Common
PHYS 2231	PHYS 223	Common
PHYS 2240G	PHYS 222G	Common
PHYS 2240L	PHYS 222GL	Common
PHYS 2241	PHYS 224	Common
PHYS 2996	PHYS 290	Common
PHYS 2997	PHYS 280	Common
Political Science		
POLS 1110G	GOVT 110G	Common
POLS 1111	GOVT 101	Common
POLS 1120G	GOVT 100G	Common
POLS 1130G	GOVT 150G	Common
POLS 2120G	GOVT 160G	Common
POLS 2996	GOVT 201	Common
Portuguese		
PORT 1110	PORT 213	Common
PORT 1120	PORT 214	Common
Psychology		
PSYC 1110G	PSY 201G	Common
PSYC 2221	PSY 266	Common
PSYC 2230	PSY 290	Common
PSYC 2311	PSY 274	Common
Public Health Sciences		
PHLS 1110G	PHLS 150G	Common
PHLS 2110	PHLS 275	Common
PHLS 2120	PHLS 295	Common
Social Work		
SOWK 2110G	S WK 221G	Common
SOWK 2111	S WK 251	Common
Sociology		
SOCI 1110G	SOC 101G	Common
SOCI 2230	SOC 263	Common
SOCI 2230	SOC 269	Common
SOCI 2240	SOC 258	Common
SOCI 2261	SOC 262	Common
SOCI 2310G	SOC 201G	Common
Spanish		
SPAN 1110	SPAN 111	Common
SPAN 1120	SPAN 112	Common
SPAN 1210	SPAN 113	Common

SPAN 1220	SPAN 213	Common
SPAN 2110	SPAN 211	Common
SPAN 2120	SPAN 212	Common
SPAN 2210	SPAN 214	Common
Special Education		
SPED 2996	SPED 201	Common
Speech & Hearing Science		
SPHS 2110	C D 221	Common
Theater		
THEA 1110G	THTR 101G	Common
THEA 1210G	THTR 105	Common
THEA 1221	THTR 110	Common
THEA 1222	THTR 120	Common
THEA 1223	THTR 130	Common
THEA 1310	THTR 142	Common
THEA 1310L	THTR 142 L	Common
THEA 1415	THTR 149	Common
THEA 2221	THTR 210	Common
THEA 2222	THTR 206	Common
THEA 2310	THTR 141	Common
THEA 2310L	THTR 141 L	Common
THEA 2340	THTR 250	Common
THEA 2415	THTR 249	Common
THEA 2421	THTR 220	Common
THEA 2993	THTR 200	Common
THEA 2996	THTR 222	Common
Women's Studies		
GNDR 2110G	W S 201G	Common
GNDR 2120G	HON 218	Common
GNDR 2120G	W S 202G	Common

COURSE DESCRIPTIONS

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Accounting (ACCT)

ACCT 1125 Supplemental Instruction to Financial Accounting 1 Credit (1)
Collaborative workshop for students to provide additional problem solving necessary for students to master Financial Accounting.
Corequisite(s): ACCT 2110
Repeatable: up to 2 credits
View Course Outcomes

ACCT 1150 QuickBooks 3 Credits (3)
An introductory course to QuickBooks Pro accounting software, including setting up a new company and chart of account; recording transactions for service and merchandising business with customers, vendors and employees; bank reconciliations; payroll; end-of-period procedures; financial reporting; managing lists; and running reports and forms and customizing them.
Learning Outcomes
1. Understand differences and similarities between a manual accounting system and QuickBooks Online
2. Identify and execute the four levels of operation within QuickBooks: New Company Setup, Lists, Activities, and Reports
3. Record sales/collections, purchase/payments, inventory, adjusting entries
4. Set up payroll, record payroll transactions, print paychecks, and view various payroll related reports
5. Produce a variety of reports and financial statements
6. Analyze reports to identify and correct errors

View Course Outcomes

ACCT 1210 Income Taxation 3 Credits (3)
Federal income taxation of individuals, sole proprietorships, partnerships, corporations, trusts, and estates with particular reference to CLU, life insurance and annuities.
Learning Outcomes
1. Demonstrate their familiarity with the Federal Individual Income Tax System.
2. Demonstrate their familiarity with the Federal Income Tax System for sole proprietorships, partnerships, corporations, trusts, and estates.
3. Explain and demonstrate gross income, deductions and loses and how they relate to Federal Individual Income tax returns.
4. Demonstrate their ability to calculate basic gains and losses on property transactions.

View Course Outcomes

ACCT 1410 Personal Tax Preparation 3 Credits (3)
Introduces basic federal and state tax codes for preparing individual income tax returns. Emphasis on use of tax software. Students will be required to pass a certification exam and assist in preparing individual tax returns for low income and elderly taxpayers.
Learning Outcomes
  1. Explain basic personal income tax filing status requirements
  2. Use appropriate tax software to prepare simple income tax returns for individuals.
  3. Answer basic tax questions.
  4. Demonstrate personal and professional interview skills in an environment that demands confidentiality issues at all levels.

View Course Outcomes

ACCT 2110 Principles of Accounting I (Financial) 3 Credits (3)
An introduction to financial accounting concepts emphasizing the analysis of business transactions in accordance with generally accepted accounting principles (GAAP), the effect of these transactions on the financial statements, financial analysis, and the interrelationships of the financial statements.
Learning Outcomes
  1. Analyze business transactions, their effects on the financial statements and the interrelationships of the financial statements involving the following: a. Cash transactions b. Receivables and Net Realizable Value c. Operational Assets and Depreciation d. Inventory e. Current Liabilities f. Long-term Liabilities
  2. Define, identify and demonstrate the impact of adjusting entries on financial statements.
  3. Explain and demonstrate the differences between cash and accrual basis accounting.
  4. Define and identify generally accepted accounting principles. Required to be included in either Principles of Accounting I (Financial) or Principles of Accounting II (Managerial)
  5. Analyze equity ownership transactions and their effect on the financial statements.
  6. Identify the cash flow statement activities and explain the purpose of the cash flow statement.
  7. Perform ratio analysis to evaluate financial statements.

View Course Outcomes

ACCT 2110X Principles of Accounting IA (Financial) 3 Credits (3)
An introduction to financial accounting concepts emphasizing the analysis of business transactions in accordance with generally accepted accounting principles (GAAP), the effect of these transactions on the financial statements, financial analysis, and the interrrationships of the financial statements. Principles of Accounting 1A plus 1B are equivalent to Principles of Accounting on the Matrix (1/2).
Learning Outcomes
  1. Analyze business transactions, their effects on the financial statements and the interrelationships of the financial statements involving the following: a. Cash transactions b. Receivables c. Payables
  2. Define, identify and demonstrate the impact of adjusting entries on financial statements.
  3. Explain and demonstrate the differences between cash and accrual basis accounting
  4. Explain, define and apply generally accepted accounting principles.

View Course Outcomes

ACCT 2110Y Principles of Accounting IB (Financial) 3 Credits (3)
A continuation of Principles of Accounting IA emphasizing accounting principles and procedures for receivables, inventory, notes and interest, depreciation, equity transactions, cash flow and financial statement analysis. Principles of Accounting IA and IB are equivalent to Principles of Accounting I on the Matrix.
Learning Outcomes
  1. Analyze business transactions, their effects on the financial statements and the interrelationships of the financial statements involving the following: a. Receivables and Net Realizable Value b. Operational Assets and Depreciation c. Inventory d. Current Liabilities e. Long-term Liabilities
  2. Define and identify generally accepted accounting principles.
  3. Analyze equity ownership transactions and their effect on the financial statements.
  4. Identify the cash flow statement activities and explain the purpose of the cash flow statement.
  5. Perform ratio analysis to evaluate financial statements.

View Course Outcomes

ACCT 2115 Survey of Accounting 3 Credits (3)
Designed to provide a basic understanding of accounting procedures for small businesses. Provide a foundation of the accounting cycle for a small business enterprise and a practical understanding of business financial statements.
Learning Outcomes
  1. Explain basic accounting concepts and terminology.
  2. Perform the basic steps in the accounting cycle for a small business.
  3. Prepare bank reconciliations.
  4. Prepare payroll journals and calculate withholding deductions

View Course Outcomes

ACCT 2120 Principles of Accounting II (Managerial) 3 Credits (3)
An introduction to the use of accounting information in the management decision making processes of planning, implementing, and controlling business activities. In addition, the course will discuss the accumulation and classification of costs as well as demonstrate the difference between costing systems.
Prerequisite(s): ACCT 2110
Learning Outcomes
1. Identify the differences between financial and managerial accounting.
2. Illustrate the accumulation of costs in cost accounting systems.
3. Describe the basic elements of the budgeting process, its objectives and budget preparation.
4. Define and classify cost behavior.
5. Perform cost-volume-profit analysis for decision making.
6. Perform differential (incremental) analysis for business decision making.
7. Explain the cause of the variance and its effect on the income statement.
8. Explain and demonstrate the difference between traditional costing and activity-based costing. Required to be included in either Principles of Accounting I (Financial) or Principles of Accounting II (Managerial)
9. Analyze equity ownership transactions and their effect on the financial statements.
10. Identify the cash flow statement activities and explain the purpose of the cash flow statement.
11. Perform ratio analysis to evaluate financial statements.

View Course Outcomes

ACCT 2170 Payroll Accounting 3 Credits (3)
Covers payroll accounting procedure and controls, tax and employment laws, and tax reports that form the core of payroll responsibilities.
Learning Outcomes
1. Identify payroll terminology and concepts, required payroll records, and various laws and regulations affecting payroll operations
2. Calculate gross wages and deductions
3. Record, journalize and post payroll transactions in accordance with GAAP using the appropriate accounting records (e.g. payroll registers, employee earnings records, journals, and ledgers)
4. Prepare and accurately complete payroll tax reports for timely filing

View Course Outcomes

ACCT 2210 Spreadsheet Accounting 3 Credits (3)
This course is a hands-on spreadsheet accounting course designed to help students apply previous knowledge and processes of financial and managerial accounting to a computerized environment using popular spreadsheet software. It will include microcomputer accounting applications, integrating spreadsheets, word processing, graphics, and database.
View Course Outcomes

ACCT 2320 Introduction to Tax I (Individual) 3 Credits (3)
Studies the current federal tax laws, providing a working knowledge of preparing taxes for individuals and sole proprietorships. Federal tax law topics include gross income, exclusions, deductions, credits, accounting periods and methods, and property transactions.
View Course Outcomes

ACCT 2520 Introduction to Auditing 3 Credits (3)
Surveys auditing concepts and processes used by management and assurance professionals that include audit standards, reports, professional ethics, legal liability, evidence accumulation, audit planning, internal controls, transaction cycles, other engagements and operational auditing.
Learning Outcomes
1. Describe the attest function.
2. Identify the professional and regulatory standards that impact the auditing profession.
3. Use audit planning techniques to assess risks, calculate materiality and prepare audit programs.
4. Evaluate factual situations to identify internal control deficiencies, significant deficiencies, and material weaknesses.
5. Identify types of evidence and practice documenting the results of performing audit tests.
6. Use various audit sampling to determine whether sufficient evidence has been obtained.
7. Identify audit procedures performed in the completion of an audi.t
8. Select the appropriate audit report for various factual situations.
9. Demonstrate knowledge of other attestation and assurance services performed by CPAs as well as other types of services, which independent auditors may or may not perform.

View Course Outcomes

ACCT 2999 Capstone in Accounting 3 Credits (3)
Focuses on assessment of Student Learning Outcomes for the program of study.
View Course Outcomes

Africana Studies (AFST)

AFST 1110G Introduction to Africana Studies 3 Credits (3)
An interdisciplinary course that introduce students to the histories, cultures, and experiences of global people of African descent.
View Course Outcomes

AFST 2110G African American History 3 Credits (3)
This course surveys the long and turbulent journey of African-Americans, the rich culture they have cultivated, and their persistent struggle for freedom from the perspective, interests, aspirations, possibilities and envisioned destinies of African descended peoples. From African antiquity to the 21st century, students will study: 1) The African background; 2) The Holocaust of Enslavement; 3) Black Resistance and Abolition; 4) Reconstruction; 5) The Jim Crow Era; 6) Civil Rights and Black Power, and; 7) The Post-Industrial/Post Civil Rights Era. (unique)
View Course Outcomes

AFST 2140G Black Women in the African Diaspora 3 Credits (3)
This survey course reviews the contributions of Black women to the Black Diasporic story.
View Course Outcomes

Agricultural and Extension Education (AXED)

AXED 1110 Introduction to Agricultural, Extension, and Technology Education 3 Credits (3)
Orientation to programs, philosophies, competencies and leadership skills needed by professionals in agricultural and technology education, extension education, agricultural communications, and related career opportunities in industry, governmental agencies, and international organizations.
Learning Outcomes
1. Orient student to the AXED Department and their role as students.
2. Explore career opportunities (and the related skill sets needed for success) in public schools, career and technical institutions, the cooperative extension service, community, and international development, agricultural communications, agricultural industry associations and public service (e.g., NMDA and USDA).
3. Develop an understanding of the self-leadership skills needed to be effective in a variety of professional and personal environments.
4. Familiarize students with the aspects included within a total program in agricultural or technology education.
5. Strengthen skills in oral and written communications.

View Course Outcomes

AXED 1130 Techniques in Agricultural Mechanization 3 Credits (3)
Development of competencies in agricultural mechanics including safety, tool identification, operation and maintenance of hand and power tools, cold metal, drafting, and plumbing procedures. Designed for any major wishing to improve mechanical skills needed in agriculturally related occupations in education and industry. (2+2P)
Learning Outcomes
1. To understand basic drafting language used in orthographic and isometric drawings.
2. To develop an understanding of the proper use and safety of basic hand and power tools.
3. To develop skills needed to operate basic hand and power tools correctly.
4. To develop an understanding of surveying methods and building layout for construction.
5. To develop an adequate level of competence in workshop techniques.
6. To prepare students to properly teach and demonstrate these techniques to others who may use them as a means of earning a living.

View Course Outcomes

AXED 2110 Metal Fabrication 3 Credits (3)
Instruction and skill development in process and procedures of metal fusion, including gas and electric welding techniques, safety, and oxy-acetylene cutting and welding. Designed to improve mechanical skills needed in agriculturally related occupations in education and industry. (2+4P)
View Course Outcomes

AXED 2130 Early Field-Based Experience 2 Credits (2)
First Hand view of the roles of professional educators through field experiences with Cooperative Extension or other government agencies. Includes 4 weeks of classroom instruction and 30 hours of observation in a work setting.
Learning Outcomes
1. Identify successful characteristics, tips and strategies that an agricultural education professional may use as part of their program.
2. Identify key components of an agricultural education program
3. Actively observe a local agricultural education program.
4. Identify ways that your agency program networks and interacts with clientele and community

View Course Outcomes

AXED 2996 Topics in Agricultural and Extension Education 1-4 Credits
Specific subjects and credits to be announced in the Schedule of Classes. Repeatable: Maximum of 4 credits per semester. No more than 6 credits toward degree.
View Course Outcomes

Agricultural Economics (AEEC)

AEEC 1110 Introduction to Agricultural Economics and Business 3 Credits (3)
This course is an orientation to agricultural economics and business through the discovery process for the consumer in the food, fiber, and natural resource sectors of the global economy. The course discusses the application of micro-and macro-economic principles as they relate to agricultural economics and business. Repeatable: up to 3 credits.
Learning Outcomes
1. Gain a broad understanding of the role of the consumer in the market-place for agricultural commodities, producers, agencies and the global market structure.
2. Apply introductory economic principles to applied global situations.
3. Employ economic concepts in the application of production level decision making.
4. Employ economic principles to the basic and global agricultural community.
5. Understand relationships that exist between producers and consumers.

View Course Outcomes

AEEC 1120 Careers in Food and Agribusiness 1 Credit (1)
This course provides an orientation to careers in agricultural economics and agricultural business. Students will learn about the agricultural supply chain in New Mexico, the United States, and the world. Students will be introduced to faculty and staff within the department, learn about career opportunities available to AEAB graduates, and develop a greater appreciation of current agricultural issues. Freshman status required. Repeatable: up to 1 credit.
Learning Outcomes
1. Become more familiar with career opportunities in agricultural economics and agricultural business
2. Understand skills and characteristics desired by potential employers of Agricultural Economics and Agricultural Business students
3. Develop greater appreciation of current policy and management issues in agriculture
4. Become more familiar with faculty and staff in the Department of Agricultural Economics and Agricultural Economics and resources available to students within the Department
5. Refine written and verbal communication skills

View Course Outcomes

AEEC 2110 Principles of Food and Agribusiness Management 3 Credits (3)
This course introduces business management theory and application of theory related to businesses within the food and fiber supply chain. Topics include management and financial principles, market planning, and organization theory. Repeatable: up to 3 credits.
Learning Outcomes
1. Demonstrate, refine and expand written and oral communication skills
2. Develop an understanding of basic financial statements, their use and analysis
3. Understand the roles management and management styles play in modern agribusiness
4. Learn about the history of agribusiness domestically and internationally
5. Integrate the role of technology into modern agribusiness management

View Course Outcomes

AEEC 2120 Introduction to Food and Agribusiness Accounting 3 Credits (3)
This course outlines the purpose and methods of keeping and analyzing farm and ranch records. Course topics include financial statements, efficiency measures, analysis of the business, and tax computations.
Learning Outcomes
1. To present the terminology and principles required to develop modern farm and ranch financial statements.
2. To demonstrate the concepts of financial analysis required to evaluate capital investments, analyze farm business performance, and to develop tools for financial planning and analysis.
3. To develop the analytical concepts required to understand and evaluate money flows over time and apply these concepts to the use of capital and credit.

View Course Outcomes

AEEC 2130G Survey of Food and Agricultural Issues 3 Credits (3)
Survey of food and agricultural issues, including: geography of food production and consumption; human-agricultural-natural resource relations; agriculture in the United States and abroad; modern agribusiness; food safety; food, agriculture, and natural resources policy; ethical questions; role and impact of technology. Crosslist: FSTE 2130G.
View Course Outcomes

AEEC 2140 Technology and Communication for Business Management 3 Credits (3)
This course helps students improve their skills related to data analysis, information management, and communication. Drawing examples from a variety of management, business, technological and research situations, students discover the versatility and functionality of modern computer software. The course emphasizes a hands-on approach. Repeatable: up to 3 credits. (2+2P)
Learning Outcomes
1. Demonstrate an understanding terms used to describe common techniques and concepts in business information systems.
2. Demonstrate mastery of spreadsheet design and use.

View Course Outcomes

AEEC 2996 Topics in Agricultural Economics 1-4 Credits
Specific subjects and credits to be announced in the Schedule of Classes.
View Course Outcomes

Agriculture Communications (ACOM)

ACOM 1110 Introduction to Agricultural Communication 3 Credits (3)
Students will learn about the history and theories of agricultural communications, be introduced to the degree program, explore careers in the field, and examine the role of media in agricultural communications. Repeatable: up to 3 credits.
Learning Outcomes
1. Identify classes needed in the degree program and relevant clubs.
2. Recall important times in history of agricultural communication and journalism.
3. Comprehend the communication process and identify its components.
4. Identify effective and efficient media for agricultural communication.
5. Analyze the various roles and uses of media in agriculture communication.
6. Apply theories of communication and journalism to class assignments.

View Course Outcomes

ACOM 1120 Introduction to Graphic Design in Agricultural 3 Credits (3)
This course focuses on introducing students to creating and critiquing visual communication materials in agricultural communications by developing understanding of visual communications, graphic design, and branding principles.
Learning Outcomes
1. Understand and demonstrate the correct use of formats, modes, and resolutions when creating or using graphics for various mediums and audiences.
2. Critique and evaluate graphic and photographic design elements in agricultural communications pieces.
3. Demonstrate a working knowledge of software and their uses for implementing principles of graphic design and branding.

View Course Outcomes

ACOM 1130G Effective Leadership and Communication in Agriculture 3 Credits (3)
Theory and practice in leadership and communication for professionals who must work effectively in leadership and supervisory roles with people in agricultural business, industry, government agencies, and education. Course focuses on contemporary leadership theories. Oral communication skills in informative and persuasive speaking, parliamentary procedure, and for small groups are developed.(2+2P) Repeatable: up to 3 credits.
View Course Outcomes

ACOM 2120 Photography in Agriculture 3 Credits (3)
This is a field-based course focused on how students use the camera as a tool to make the rules of photography and design work for the student's style, creativity, and goals pertaining to application of photography in agricultural communications. Students develop and disseminate a photography portfolio through a variety of communications channels. (P2P)
Learning Outcomes
1. Utilize a DSLR or mirrorless camera to analyze scenarios to effectively curate a body of work that compliments agricultural communications practice
2. Demonstrate working knowledge of camera equipment and photography principles to create visual stories
3. Evaluate and critique imagery for use of photography skills and principles

View Course Outcomes

ACOM 2998 Field Experience in Agricultural Communications 4 Credits (4)
This course is designed to help you understand people and how to communicate with people. The key to all journalism or communications-related courses is to understand the audience well enough to know how to speak like them, to them, and to your stakeholders. The most successful communicators exhibit greatness in themselves and in their peers. Communicators cannot do their job if they do not show up with their best attitude and work ethic. Don't let your audience down, and we will make sure you are equipped to do so.
Repeatable: up to 6 credits
Learning Outcomes
1. Explain the role of communications in the agricultural or science industries.
2. Develop a communication campaign for an agriculturally related client.
3. Identify key principles of communication channels including newswriting, radio production, and communication plans.
4. Create effective internship application materials to meet needs in the industry.
5. Design a job portfolio that includes examples of communications experience.

View Course Outcomes

Agronomy (AGRO)

AGRO 1110G Introduction to Plant Science (Lecture & Laboratory) 4 Credits (4)
This is an introductory course for understanding plant science. Basic biological, chemical, and physical principles of various plants are covered. The focus of this course is on plants/crops used in agriculture production of food and fiber as well as pasture and range plants. Plant taxonomy and soil properties will also be discussed. (3+2P)Crosslist: HORT 1115G.
View Course Outcomes

AGRO 2160 Plant Propagation 3 Credits (3)
Practical methods of propagating horticultural plants by seed, cuttings, layering, grafting, division and tissue culture. Examination of relevant physiological processes involved with successful plant propagation techniques. Crosslist: HORT 2160. (2+2P)
Learning Outcomes
1. Practical methods of propagating plants by seed, cuttings, layering, grafting, division, and tissue culture through experiential, "hands-on" laboratories.
2. Relevant physiological principles involved in propagating horticultural plants through lecture discussions and readings.

View Course Outcomes

AGRO 2996 Topics in Agronomy 1-4 Credits
Specific subjects and credits to be announced in the Schedule of Classes. Maximum of 4 credits per semester. No more than 9 credits toward a degree. Repeatable: up to 9 credits.
View Course Outcomes

Allied Health Science (AHS)

AHS 115 Dietary Guidelines & Meal Planning 4 Credits (4)
A combination of the science of nutrition and the current Dietary Guidelines for Americans with practical application to meal planning and preparation. Strategies and techniques used to plan and prepare healthful and appetizing meals are explored. Evidenced-based dietary guidelines are provided to meet the needs of individuals and groups with chronic diseases. Menu development, modification, and analysis are reviewed.
View Course Outcomes

AHS 120 Medical Terminology 3 Credits (3)
The study and understanding of medical terminology as it relates to diseases, their causes and effects, and the terminology used in various medical specialties. Emphasis will be placed on learning the basic construction of medical words, appropriate spelling, use of medical terms, and use of medical abbreviations. Cross listed with NURS 150, OATS 150, and HIT 150.
Repeatable: up to 3 credits
Learning Outcomes
  1. Demonstrate proficient interpretation of medical abbreviations
  2. Explain the importance of utilizing medical terms/abbreviations in the medical field
  3. Define medical terms correctly
  4. Interpret medical language including roots, previses and suffixes
  5. Pronounce medical terms correctly
  6. Spell medical terms correctly

View Course Outcomes

AHS 140 Essentials of Anatomy and Physiology 4 Credits (4)
Essentials of anatomy and physiology for those considering a career in health as well as those interested in understanding their own body and the basics of health. (3+3P)
View Course Outcomes

AHS 153 Introduction to Anatomy and Physiology I 4 Credits (4)
Survey of human anatomy and physiology. (3+3P)
Prerequisite(s): high school biology or high school chemistry, or CHEM 1120G, or consent of instructor
View Course Outcomes

AHS 155 Special Topics 1 Credit (1)
Topics to be announced in the Schedule of Classes.
Repeatable: for a maximum of 6 credits
View Course Outcomes

AHS 190 Clinical Skills & Concepts for Medical Assisting I 6 Credits (6)
A core course designed to provide an introduction to the theory, concepts, and skills needed for entry-level medical assisting positions. Content includes basic theory and concepts designed to support safe and effective practice as a medical assistant in ambulatory care settings. Includes a skills laboratory for hands-on practice and 96 hours of supervised clinical in the work environment. (3+6P)
Learning Outcomes
  1. Apply theoretical knowledge associated with medical assisting in providing basic healthcare services.
  2. Perform essential clinical skills within the medical assistant scope of practice in ambulatory clinic settings.
  3. Recognize factors that affect procedures and results, and take appropriate actions with predetermined limits when indicated, including patient compromise or complications.
  4. Demonstrate professional conduct and interpersonal communication skills with patients, other health care professionals, and with the public.
  5. Recognize the responsibilities of other health care personnel and interact with them with respect for their jobs and patient care.
  6. Apply basic scientific principles in learning new techniques and procedures.
  7. Relate vital sign and laboratory findings to common disease processes.

View Course Outcomes

AHS 202 Legal and Ethical Issues in Health Care 3 Credits (3)
Consideration of legal and ethical issues in modern health care delivery.
View Course Outcomes

AHS 250 Spanish for Health Professionals 3 Credits (3)
Spanish for Health Professionals is a 3 credit course geared toward individuals working or majoring in health related areas. The course focus is on conversation and vocabulary needed for the workplace and task based practical skills.
View Course Outcomes

AHS 280 Medical Office Administration & Management 4 Credits (4)
A core course designed to provide the theory, concepts, and skills needed in preparation for entry-level medical assisting positions. Content includes theory and concepts related to medical office administration. The course includes skills, hands-on practice, and 40 hours of supervised clinical in the work environment in ambulatory care settings. (2+4P)
View Course Outcomes

AHS 290 Clinical Skills & Concepts for Medical Assisting II 6 Credits (6)
A core course designed to provide the theory, concepts, and skills needed in preparation for entry-level medical assisting positions. Content includes theory and concepts related to specialty areas of healthcare practice, as well as consideration for conditions affecting persons throughout the life span. The course includes a skills laboratory for hands-on practice and 96 hours of supervised clinical in the work environment with specialized populations and procedures in both ambulatory and acute care settings. (3+6P)
Learning Outcomes
1. Apply theoretical knowledge associated with medical assisting in providing basic healthcare services.
2. Perform essential clinical skills within the medical assistant scope of practice in ambulatory clinic settings where specialized care is given, as well as, acute care settings.
3. Recognize factors that affect procedures and results, and take appropriate actions within predetermined limits when indicated, including patient compromise or complications.
4. Demonstrate professional conduct and interpersonal communication skills with patients, other health care professionals, and with the public.
5. Recognize the responsibilities of other health care personnel and interact with them with respect for their jobs and patient care.
6. Apply basic scientific principles in learning new techniques and procedures.
7. Relate vital sign and laboratory find is to common disease processes.

View Course Outcomes

Animal Science (ANSC)

ANSC 1110 Animal Science Careers 1 Credit (1)
Introduction to scientific disciplines and career options in animal-agriculture career skill development, including resume preparation, networking, importance of internships, and leadership experiences in animal agriculture.
Learning Outcomes
1. Increasing the understanding of career opportunities in animal agriculture.
2. Gain a broad experience in the development of creative thinking about the career choices available in animal agriculture.
3. Apply the increased knowledge of career development in the career path and internship directions for each student.
4. Gain leadership experience that will be impactful for the student in their pursuit of a career in animal agriculture.

View Course Outcomes

ANSC 1120 Introduction to Animal Science 3 Credits (3)
Survey of the livestock industry throughout the world. Basic management practices will be covered, including livestock selection, nutrition, reproduction, anatomy and marketing to the consumer. This course will also discuss animal behavior and welfare.
Learning Outcomes
1. Understand the role of farm animals in a global setting.
2. Describe the role of nutrition, breeding, behavior, welfare, and physiology of livestock in the world.
3. Explain the structure and organization of livestock industries.
4. Discuss concepts and terminology of the livestock industries as they relate to the global perspective.
5. Classify the overall management, care, marketing of animals, represented in the various livestock industries.

View Course Outcomes

ANSC 1120H Introduction to Animal Science Honors 3 Credits (3)
This course is designed to provide an introduction to nutrients and their function in livestock animals. Basic feed identification, evaluation, and diet formulation will be discussed. The anatomy of the digestive tract of animals and their ability to utilize feedstuffs is presented. Classification, digestion, absorption, transport and metabolism of major nutrients required by animals are studied. Additional course work will be required.
Prerequisite(s): Eligibility for membership in honors college
View Course Outcomes

ANSC 1120L Introduction to Animal Science Laboratory 1 Credit (1)
Students will observe and participate in activities related to farm animal management and will include areas of livestock selection, nutrition, reproductive physiology, animal ID and animal health. This lab is required for animal science majors. (2P)
Prerequisite(s)/Corequisite(s): ANSC 1120
View Course Outcomes

ANSC 1130 Western Equitation I 2 Credits (2)
Basic principles of Western riding, including care and management of the riding horse, equitation equipment, and development of riding skills. (4P)
View Course Outcomes

ANSC 1140 Introduction to Dairy Science 3 Credits (3)
Introduction to the basic aspects of dairy science and how to apply key concepts to the practical feeding and management of dairy cattle and production of dairy products. Students should also obtain an appreciation for the size and diversity of the dairy industry.
Prerequisite(s)/Corequisite(s): ANSC 1120
Learning Outcomes
1. Learn key concepts in dairy production and management
2. Be familiar with terms used in production of milk and milk products

View Course Outcomes

ANSC 1160 Introductory Horse Science 3 Credits (3)
The light horse industry; breeds; introduction to feeding, breeding, marketing and management; handling and selecting horses for breeding and performance. (2+2P)
Learning Outcomes
1. Describe and identify breeds of horses, their characteristics and their uses.
2. Demonstrate knowledge of basic physiology of horses by recalling parts of the horse, including bones, muscle, tendons and ligaments. Also, by ageing horses via teeth, body condition scoring and taking vital signs.
3. Demonstrate safe and proper handling of horses.
4. Demonstrate comprehension of basic nutrition and feedstuffs by formulating/correcting diets in clinical and non-clinical situations.
5. Recall aspects of basic reproduction by calculating a stallion book and recalling appropriate procedures for breeding.
6. Create informative articles that seek to educate the lay horse person about a topic covered in class.

View Course Outcomes

ANSC 1170 Introduction to Animal Metabolism 3 Credits (3)
Principles underlying the mechanisms of animal metabolism as they relate to production, maintenance, and health of animals.
Prerequisite(s): CHEM 1215G
Learning Outcomes
1. This course provides an introduction to the study of the physiology of life.
2. The first part of the course covers acids and bases and the chemical nature of organic compounds.
3. The second part of the course relates to the chemistry of biomolecules (nutrients) and summarizes the chemical reactions of life (metabolism).

View Course Outcomes

ANSC 1180 Companion Animal Metabolism 3 Credits (3)
Examination of the historical, current, and potential future roles of companion animals in human society. Topics include animal domestication, breeds, exotic companion animals, the companion animal industry, and competitions and sports involving companion animals. Emphasis is on canine and feline species. Repeatable: up to 3 credits.
Learning Outcomes
1. Discuss the theories regarding why, how, and when companion animals became domesticated.
2. Describe how selective breeding has optimized certain physiological and behavioral traits of companion animals in order to fulfill the needs of individual people and society.
3. Explain the concept of human-companion animal interaction (HAI) and the influence this bond has on human behavior, health, society, and government policy/laws.
4. Understand the breadth and economic impact of the rapidly expanding companion animal industry and the recent expenditure trends of pet owners.
5. Discuss the past and present uses of companion animals and theorize regarding the future uses of companion animals in society.
6. Be effective in searching for, and critically evaluating, scientific based resources.

View Course Outcomes

ANSC 2120 Equine Management 3 Credits (3)
Introduction and application of the business skills necessary to effectively manage the equine operation. Students will learn how to use strategic thinking and sound business management practices to succeed in the demanding equine industry.
Prerequisite(s): ANSC 1160
Learning Outcomes
1. Develop a working knowledge of the business principles needed to operate a successful entrepreneurial enterprise.
2. Increase the awareness of the need for business principles in the aggregate function of an equine operation.
3. Gain a greater perspective of accounting, economic and financial principles in an equine business operation.

View Course Outcomes

ANSC 2130 Western Equitation II 2 Credits (2)
Intermediate principles of Western riding, including reading horse behavior, limbering-up exercises, and developing riding skills. Introduction to rollbacks, turnarounds and stops. (4P)
Learning Outcomes
1. Increasing the understanding of the student relative to equitation practices
2. Increase the students' ability to apply principles of Western Equitation to applied settings across a broad spectrum of outlets
3. Prepare the student to engage equine in a professional manner

View Course Outcomes

ANSC 2140 Introduction to Companion Animal Science 3 Credits (3)
Introduction to the care of common companion animal species. Species specific housing and nutrition are covered in the context of maximizing animal health and well-being and reducing disease. Repeatable: up to 3 credits.
Learning Outcomes
1. Accurately use scientific terminology common to the companion animal discipline.
2. Compare and contrast the physiological similarities and differences between the various companion animal species studied in class.
3. Create dietary plans based on the nutritional needs of different companion animal species to optimize animal health and lifespan.
4. Identify symptoms of disease/injury at the early stages of illness in order to obtain Veterinary care and treatment as quickly as possible.
5. Design and construct species specific cages/vivarium to maximize animal well-being and health.
6. Educate others regarding providing the best possible care for a variety of companion animal species.

View Course Outcomes

ANSC 2150 Management of Equine Operations 3 Credits (3)
Introduction and application of business skills necessary to effectively manage the equine operation. Students will learn how to use strategic thinking and sound business management practices to succeed in the demanding equine industry.
Prerequisite(s): ANSC 1160
Learning Outcomes
1. Acquire a working knowledge of different sectors of the equine industry, including business practices, management and marketing skills.

View Course Outcomes

ANSC 2310 Introduction to Meat Science 3 Credits (3)
Fundamental aspects of the red meat industry. Lecture topics and laboratory exercises include the nutrient value of meat, meat preservation, meat safety, muscle structure and contraction, slaughter and processing of beef, lamb and pork, sausage manufacture, meat curing, meat cookery, and muscle and bone anatomy. (2+3P) Provides lab.
Provides Lab
Learning Outcomes
1. Increasing the understanding of meat science applications across animal agriculture.
2. Increase the students' ability to apply principles of production to the industry perspective.
3. Apply the increased knowledge of meat science in a global situation.
4. Gain an understanding of the components involved in the development and processing of the red meat industry

View Course Outcomes

ANSC 2330 Animal Production 3 Credits (3)
Production and utilization of beef cattle, sheep, and swine; emphasis on feeding, breeding, management problems and marketing; selection of animals for breeding and market. (2+2P)
Learning Outcomes
1. Increasing the understanding of meat animal production.
2. Increase the students' ability to apply principles of production to the industry perspective.
3. Apply the increased knowledge of meat animal production to global situations.
4. Gain a broader understanding of the importance of meat animals in the global food system.

View Course Outcomes

ANSC 2340 Genetics in Animal Science 3 Credits (3)
Introduction to genetics and inheritance relative to livestock production. Introduction to procedures for collection and use of performance information in livestock improvement programs.
Prerequisite(s): BIOL 2610G
Learning Outcomes
1. Gain a broader understanding of the role genetic impacts in the livestock industry.
2. Employ an increased knowledge of impact of genetics in the food animal industry and the production and economic principles that apply.
3. Recognition of the global impacts of genetics in the food animal industry in a global setting.

View Course Outcomes

ANSC 2996 Topics in Animal Science 1-4 Credits
Varies
View Course Outcomes

Anthropology (ANTH)

ANTH 1115G Introduction to Anthropology 3 Credits (3)
Anthropology is the systematic study of the humanity both past and present. The course introduces students to the four subfields of anthropology, which include archaeology, biological, linguistic and cultural anthropology. Students will learn about the concepts and methods that anthropologists use to study our specific and gain a broader perspective on the human experience.
View Course Outcomes

ANTH 1135G Introduction to Biological Anthropology 3 Credits (3)
This course provides a basic introduction to the broad field of biological anthropology. The research interests of biological anthropologists include the history and development of modern evolutionary biology, molecular and population genetics, modern primates, the primate and human fossil record, and modern human biological diversity.
Corequisite(s): ANTH 1135L
View Course Outcomes

ANTH 1135L Introduction to Biological Anthropology Laboratory 1 Credit (1)
This laboratory course expand on the topics covered in lecture course and uses scientific methods and principles to examine evidence for the process of evolution, the nature of heredity, human evolutionary history and family tree relationships, primate ecology and behavior, and modern human diversity. Hands-on experience with fossil and skeletal material will be an important part of the learning process. (2P) Provides lab.
Corequisite(s): ANTH 1135G
Provides Lab
Learning Outcomes
1. Demonstrate an understanding of the scientific method.
2. Employ principles of Mendelian genetics to determine genotype and phenotype probabilities, and calculate gene, genotype, and phenotype frequencies using the Hardy-Weinberg Equilibrium formula.
3. Demonstrate an understanding of cell structure and functions.
4. Use common lab and anthropometric equipment such as a compound microscope and calipers.
5. Discuss primate evolution, and compare and contrast members of the Primate order in terms of structure, behavior, and phylogeny.
6. Classify hominid species based upon selected traits such as anatomical changes associated with bipedalism, changes in the size and structure of the brain, and the development of culture.
7. Locate and describe the major bones of the human skeleton, and identify characteristics of human skeletons or skulls such as gender, age, and ancestry.
8. Discuss current research in genome analysis of various hominid populations.

View Course Outcomes

ANTH 1136 Introduction to Historic Preservation 3 Credits (3)
Introduction to historic preservation, its history, goals, methods, legal basis, and economic importance. Explores public role in decision-making.
Learning Outcomes
1. understand WHY historic preservation is important;
2. be familiar with WHAT is important to preserve;
3. know WHO among the general public, state, and federal governments is responsible for preserving the past;
4. Have gained experience in HOW we all preserve.

View Course Outcomes

ANTH 1137G Human Ancestors 3 Credits (3)
Evolutionary history of the human species from its origin in the primate order, with primary emphasis on the evolution of humankind during the past three million years. Examination of the social lives of apes and consideration of similarities to and differences from them. Biological foundations of human behavior, emphasizing thought, movement, and interaction.
View Course Outcomes

ANTH 1140G Introduction to Cultural Anthropology 3 Credits (3)
This is an introductory course that provides an overview of cultural anthropology as a subfield within the broader discipline of anthropology and as a research approach within the social sciences more generally. The course presents core concepts and methods of cultural anthropology that are used to understand the ways in which human beings organize and experience their lives through distinctive cultural practices. More specifically, this course explores social and cultural differences and similarities around the world through a variety of topics such as: language and communication, economics, ways of making a living, marriage and family, kinship and descent, race, ethnicity, political organization, supernatural beliefs, sex and gender, and globalization. This course ultimately aims to present a broad range of perspectives and practices of various cultural groups from across the globe.
View Course Outcomes

ANTH 1160G World Archaeology 3 Credits (3)
This course is an exploration of human evolution and cultural development throughout the world. Students will be introduced to basic anthropological methods and theories and will learn how anthropological research has contributed to our understanding of major themes in human prehistory, including human evolution, the origins of culture, migration and colonization, animal and plant domestication, and the rise and fall of civilizations.
View Course Outcomes

ANTH 2140G Indigenous Peoples of North America 3 Credits (3)
This course is a general survey of the history and ethnology of indigenous groups in North America. The course is designed to give students a comprehensive view of major issues pertaining to the indigenous cultures of North America, such as family structure, social organization, subsistence and contemporary economies, environmental adaptation, Indian-White relations, religious practices, and contemporary issues.
View Course Outcomes

ANTH 2150 Indigenous Peoples of the American Southwest 3 Credits (3)
This course is a study of indigenous cultural groups of the American Southwest. Students will explore historical and contemporary cultural and social patterns of American Indian, Hispanic and Anglo-American groups.
Learning Outcomes
1. Describe socio-cultural developments, geographic environments, and characteristics of major cultural groups that currently inhabit the American Southwest.
2. Recognize underlying similarities as well as the wide range of variability of the cultural groups in the American Southwest.
3. Recognize the impacts and effects of Euromerican colonization on indigenous cultural groups in the American Southwest.
4. Describe the historical interactions and accommodations among indigenous cultural groups in the American Southwest.
5. Examine the processes of cultural change within major cultural groups in the American Southwest.
6. Identify and analyze some of the contemporary issues faced by major cultural groups in the American Southwest.

View Course Outcomes

ANTH 2996 Topics in Anthropology 1-4 Credits
Specific subjects to be announced in the Schedule of Classes.
Repeatable: for a maximum of 12 credits
View Course Outcomes

Architecture (ARCH)

ARCH 1105 Orientation and Mentoring in Architecture--Construction Engineering (ACE) 1 Credit (1)

This course is intended for high school dual credit students and college/university students wishing to explore careers in Architecture, Construction, and Engineering (ACE), which includes the specific fields of Architectural, Civil, Mechanical, Structural, Interior, Landscape, Sustainability, and Environmental. Students receive one-on- one mentoring, attend field trips, and engage in hands-on activities. Repeatable: up to 6 credits.

View Course Outcomes

ARCH 1110 Architectural Drawing 4 Credits (4)

This course is designed as an introduction to architectural drawing and design for students without prior experience in the fine arts. Students are guided through a series of spatial and analytical exercises that focus attention on not only how architects draw, but also the reasoning and processes embedded within the technique. Students are provided exposure to a wide range of interconnected architectural concepts and to manual and digital drawing, as well as modeling techniques for architectural and interior design. Students will learn how to represent composition, form, and space by orthographic drawing, paraline and perspective views, and freehand sketching. Three-dimensional model building techniques will also be introduced.

Learning Outcomes

1. Gain understanding of basic methods of architectural drawing
2. Explore and gain understanding of concepts of spatial design and its representation through exercises
3. that stress analytical ability and an awareness of rational design process
4. Gain an understanding of the design process with practice and various exercises
5. Gain exposure to architectural delineation
6. Demonstrate an understanding of specific skills and concepts related to architectural drawing
7. Create and modify architectural models through various phases of a project
8. Demonstrate a knowledge of graphic standards according to industry conventions
9. Identify the various phases of work with regard to the architectural and interior design professions 1
10. Develop analytical and critical thinking skills

View Course Outcomes

ARCH 1112 Global Issues and Sustainability 3 Credits (3)

Introduction to global environmental issues (historic, present, and future), and the impact on tomorrow's design and construction professions. Issues will include, but shall not be limited to global warming, energy consumption, population, natural resource consumption, air and water quality, waste management, facilities operation management, politics, and facilities design & construction. The impact on the design and construction industry, including 'Green Building' and 'LEED Accreditation and Certification/Criteria' will also be addressed.Repeatable: up to 3 credits.

Learning Outcomes

1. Discover global environmental history to better understand sustainable topics and change your behavior in the future.
2. Expand your knowledge on environment, natural resource consumption, human intervention, politics, and design and construction industry to support your education and future careers.
3. Learn how the US Green Building Council LEED (Leadership in Energy and Environmental Design) certification and Accredited Professional training expands your knowledge on green building design criteria; will help you determine whether you want to take the LEED exam.
4. Examine the many sides of climate change and its effects on the globe as well as our individual microclimate and personal lives to learn how to adapt to the current changes
5. Learn how to effectively research, report, present, and debate environmental topics to help you in your education and future careers.

View Course Outcomes

ARCH 1114 Introduction to Architectural Design 3 Credits (3)
This course provides students who possess a basic background in architecture and architectural drawing with an introduction to architectural design. Students are guided through a series of spatial and analytical exercises that focus attention on two dimensional, three dimensional, and four dimensional design. This course will build on direct linkages to ARCT 101 and ARCT 104 to further students' exposure to interconnected architectural concepts of process, organizational strategies, and analysis of material methodology while utilizing abstract and practiced graphical architectural conventions.

Learning Outcomes

1. Develop critical thinking strategies through a series of connected exercises in order to explain, demonstrate, categorize, compare, contrast and assess information/evidence.

2. Explore concepts of design through spatial design and apply these concepts through a series of progressive representational exercises that stress analytical ability and an awareness of rational design process.

3. Gain skills in the application of graphical communication in a range of media.

4. Enhance abilities in selecting specific information and applying that information to problem solve issues/concerns required to complete a task, while considering other implications.

5. Develop skill sin writing and speaking effectively and use representational media appropriate for both within the profession and with the public.

6. Gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.

7. Utilize basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design.

8. Apply fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

9. Demonstrate basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system.

View Course Outcomes

ARCH 1120 Introduction to Architecture 3 Credits (3)
This course provides students the tools and vocabulary to analyze, interpret and discuss the built environment from the social, historical, perceptual and technical determinants. Students are introduced to elements, principles, and theories of architecture through their social, historical, and technical determinants. The course seeks to lay a foundation in architectural studies, including introducing students to fundamental vocabulary and concepts.

Learning Outcomes

1. Identify and describe significant architects and iconic buildings

2. Discuss social, cultural, and aesthetic contributions of specific architects and projects

3. Explain architectural concepts via written and graphic communication

4. Recall basic processes and vocabulary of architectural professional practice

5. Understand our built environment and the language of design and architecture

6. Understand how buildings are constructed and explain the process of development

7. Describe and discuss design elements, principles, and theories

8. Understand the relationships among owner, surveyors, designers, architects, engineers, and contractors

9. Research design texts and analyze buildings, landscapes, interiors, sustainability, and products to increase knowledge of important elements of architecture and design 1

10. Identify the various styles, periods, and movements and their social, historical, and technical impacts on architecture

View Course Outcomes

ARCH 1121 Computers in Architecture 3 Credits (3)
Explore various software and photography techniques widely used in the architectural field. In addition to using industry standard CAD program as primary 2-d drafting tool, focus is to produce digital architectural models and renderings, presentation boards, and animations. Digital images will be produced and enhanced through basic techniques in photography and integration of various software. Both individual and group work will be required.

Learning Outcomes

1. Demonstrate the use of the computer and plotters/printers

2. Define and understand different terminologies

3. Demonstrate the understanding of different files using windows operating system

4. Understanding the appropriate use of the software in order to produce necessary drafting outcomes

5. Use proper plotting and printing procedures in order to increase efficiency and minimize paper waste

6. Demonstrating the use of different line types as the relate to drafting

View Course Outcomes

ARCH 1122 Architectural Design Studio I 5 Credits (5)
Enhancement of general graphic communication skills and introduction to fundamental design including exploration, development and defense of design concepts; structural order; 2D and 3D processes in manual and digital architectural graphic expression; model building; general communication and presentation techniques; and development of course portfolio. Course is Studio/critique-based with considerable amount of work/hours required. This course is designed to be taken during student's last year in the Pre-Architecture program. Repeatable: up to 5 credits.
View Course Outcomes

ARCH 1220 Architecture World History I 3 Credits (3)
An introduction to the history of architecture from prehistory to the Renaissance. The major movements in architecture of the Western world will be emphasized while the non-Western tradition will be presented. Architectural works will be examined from an historical perspective that will include the consideration of the political, social, philosophical, intellectual, and spiritual climate of the period during which they were built. Buildings will also be examined as works of art and seen in the context of prevailing movements and styles in painting and sculpture. In addition, urban design will be introduced. Students will learn to appreciate architecture in the larger social context, in terms of its engineering genius and to train their eye to the refined nuances of form, texture, line, light, shadow, and material.
View Course Outcomes

ARCH 1310 Introduction to Architecture, Engineering & Construction 3 Credits (3)
Introduction to and exploration of careers in the fields of architecture, engineering, and construction. Specific fields to include: architecture, civil engineering, mechanical engineering, structural engineering, engineering technology, residential construction, commercial construction, geographical information systems (GIS), surveying, sustainable design, and green building
View Course Outcomes

ARCH 2111 Architectural Delineation I 3 Credits (3)
Introduction to visual literacy, architectural graphic communication, & basic analytical skills. Architectural concepts primarily explored through the application of technical drawing, descriptive geometry, & material manipulation; primarily black & white media. Use of digital tools and media as applicable. Repeatable: up to 3 credits.
Learning Outcomes
 1. Develop and utilize visual observation skills
 2. Translate visual observations into graphical information
 3. Develop and utilize critical thinking in the development of projects
 4. Develop effective line drawing techniques
 5. Produce graphical representations using various shading techniques
 6. Communicate design concepts and ideas clearly

View Course Outcomes

ARCH 2113 Sustainable Design in Architecture 3 Credits (3)
This course provides students with hands-on opportunity to increase their awareness in, and respond to the issues of responsible environmentally friendly building design by engaging in an integrated design process combining 'Traditional Design Process' with 'Sustainable Environmental Design' strategies. Students will expand their awareness of global environmental impacts due to design and construction, and gain knowledge in the industry's leading design 'tool' LEED (Leadership in Energy and Environmental Design) green building design rating system. LEED strategies will be utilized in the design of individual projects apply LEED in practical, individual design development, and develop an integrated building model utilizing the concept of BIM (Building Information Modeling). Such project development will require learning a basic design process and specific sequence including conceptual design, schematic design, design development and BIM (utilizing a BIM software such as REVIT, or AutoCAD Architecture).
Learning Outcomes
 1. Understand Global Issues that impact sustainability of resources and quality of/equity in life.
 2. Understand the impact of buildings on the environment
 3. Identify the basic principles of 'green' design and construction
 4. Identify and Interpret basic principles of the LEED green building rating system
 5. Engage in research of green technologies and design practices
 6. Understand the essential steps of the design process
 7. Develop a basic building design which qualifies for at least LEED Certified rating
 8. Utilize a BIM integrated software package to develop a virtual Building Information Models
 9. Develop presentation posters and slideshow of design work 1
 10. Conduct project presentations, and critique work of peers in a clear, concise manner

View Course Outcomes

ARCH 2114 Construction Documents 3 Credits (3)
Basic use of CAD and Building Information Modeling (BIM) to produce residential, commercial, and industrial architectural working drawings, including floor plans, sections, foundation plans and details, exterior and interior elevations, framing plans, and site plans. Use and application of building and zoning codes, typical construction methods and materials, and accessibility requirements. Basic 3-D modeling, AIA layering standards, sheet layout, and construction document coordination. Repeatable: up to 3 credits.
Learning Outcomes
 1. Create full 3D architectural project models, both via tutorials, and independently
 2. Set models up as working drawings.
 3. Have a working knowledge of the tools that the majority of users will use to work with Revit Architecture.
 4. Project File management skills

View Course Outcomes

ARCH 2115 Architecture Design Studio III 5 Credits (5)
Advanced graphic communication, design and 3D physical model representation. Focus on site analysis, programing and fundamental design issues of context, environment, program development and space planning, 2D and 3D design and presentation techniques. The Course is 'Studio/critique-based' with considerable amount of outside work/hours required. This course is designed to be taken during the student's last year in the Architecture Program.

Learning Outcomes

1. Write and speak effectively and use representational media appropriate for both within the profession and with the general public.

2. Raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards

3. Gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.

4. Effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design.

5. Apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

6. Examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.

7. Prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.

8. Respond to site characteristics, including its context and developmental patterning, the fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.

9. Design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards. 1

10. Demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system. 1

11. Understand the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

View Course Outcomes

ARCH 2116 Architectural Delineation I 3 Credits (3)
Continuation of ARCT 210 with an emphasis in color media.Repeatable: up to 3 credits.

Learning Outcomes

1. Develop and utilize visual observation skills

2. Translate visual observations into graphical information

3. Develop and utilize critical thinking in the development of projects

4. Develop effective line drawing techniques

5. Produce graphical representations using various shading techniques

6. Communicate design concepts and ideas clearly

View Course Outcomes

ARCH 2122 LEED Accreditation Exam Prep 3 Credits (3)
This course is intended for anyone in the construction or architectural design fields who is interested in learning more about green building and the LEED (Leadership in Energy and Environmental Design) strategies, and are also interested in learning about how to become LEED accredited. Overview of the LEED rating systems utilized in the design and operation of buildings, the various LEED building certifications, and accreditation requirements for professionals. Highlights include interpretation of the LEED Reference Guides, accepted strategies for meeting LEED certification, sample practice exams, integrated project delivery methods, and a practical approach to problem solving through the use of design problems.

Learning Outcomes

1. The student completing this course should gain knowledge and skills for each of the topics covered in the Course Outline.

2. Successful completion of this course should give each student a working knowledge of various LEED Rating Systems, and LEED GA Study Guides.

3. Students will develop critical thinking strategies to enable them to develop preliminary design and plan checking for code compliance.

4. Students should develop acceptable and productive work habits

View Course Outcomes

ARCH 2124 Professional Development and Leadership 1-3 Credits
As members and/or officers of student professional organizations, architecture students gain experience through undertaking leadership roles, participating in team building, and becoming involved in service to the community. Students can also gain actual work experience involving skills related to their field of study. Repeatable: up to 6 credits. Grading: (S/U, Audit).

Learning Outcomes

1. Leadership skills

2. Presentation techniques and public speaking

3. Organizational and teambuilding skills

4. Architecture-related skills

5. Community organizations and service

View Course Outcomes

ARCH 2220 Architectural World History II 3 Credits (3)
A continuation of World Architecture I (AHST 261) and covers the history of architecture from 1400 to the present. The major movements in architecture of the Western world will be emphasized while the non-Western tradition will be presented. Architectural works will be examined from an historical perspective that will include a consideration of the political, social, philosophical, intellectual, and spiritual climate of the period during which they were built. Buildings will also be examined as works of art and seen in the context of prevailing movements and styles in design, painting, and sculpture, Urban design will also be introduced. Students will learn to appreciate architecture in the larger social context in terms of its engineering genius and to train their eye to the refined nuances of form, texture, line, light, shadow, and material.
View Course Outcomes

ARCH 2994 Portfolio in Architecture 3 Credits (3)
This course is intended for Pre-Architecture students in their last semester of the program. Students develop a comprehensive portfolio that compiles, organizes, and showcases their most accomplished coursework produced in Architecture courses , in preparation for application to a 4 yr. Architecture program. Skills and techniques in architectural photography, scanning, and design layout using graphic software.
Learning Outcomes
1. Edit and enhance previous drawings, digital files, and models.
2. Research and learn about portfolio and layout styles.
3. Development/Presentation of Final Portfolio for application/transfer purposes, as well as presenting it to the class and other reviewers.
4. Document drawings, models, digital work and other productions accurately and effectively.
5. Organize their coursework and select the images that best showcase learned skills.
6. Develop organizational habits to record and document their work and back up digital copies.
7. Develop analytical skills to produce an effective layout to then produce a portfolio.
8. Organize, layout and design their own portfolio.

View Course Outcomes

ARCH 2995 Cooperative Education in Architecture 1 Credit (1)
Supervised cooperative work program. Student employed in approved occupation; supervised and evaluated by employer and instructor. Student meets weekly with instructor. Graded S/U.
View Course Outcomes

ARCH 2996 Topics in Architecture 1-6 Credits
Topics subtitled in the Schedule of Classes. Repeatable: maximum of 12 credits.
View Course Outcomes

Art History (ARTH)

ARTH 1115G Orientation in Art 3 Credits (3)
A multicultural examination of the principles and philosophies of the visual arts and the ideas expressed through them.
View Course Outcomes

ARTH 2110G History of Art I 3 Credits (3)
This survey course explores the art and architecture of ancient pre-historic cultures through the end of the fourteenth century. While focused primarily on the art of the Western civilizations, this course will also provide insights into the works of other major cultures in order to provide alternate views of art and history. Emphasis will be placed on the relationship of artworks to political, social, spiritual, intellectual, and cultural movements that affect and are affected by their creation and development.
View Course Outcomes

ARTH 2120G History of Art II 3 Credits (3)
This survey course will explore the architecture, sculpture, ceramics, paintings, drawings, and glass objects from the 14th century to the modern era. While focused primarily on the art of the Western civilizations, this course will also provide insights into the works of other major cultures in order to provide alternate views of art and history. Emphasis will be placed on the relationship of artworks to political, social, spiritual, intellectual, and cultural movements that affect and are affected by their creation and development. Repeatable: up to 3 credits.
View Course Outcomes

ARTH 2136 Writing in Art 3 Credits (3)
This class looks at the variety of writings associated with art history and studio art practice. It explores the discipline of art history itself, and introduces students to the specific ways in which art historians study art. Within a workshop setting, students will practice approaches to research, understanding art and writing about art. Students will also be introduced to professional writing practices, including digital formats, relating to studio art.
Learning Outcomes
1. Develop visual literacy in looking at art
2. Analyze a complex art historical argument
3. Apply art specific vocabulary to critically-based writings and discussions of art
4. Develop writing skills to articulate the relationship of art to the human experience.

View Course Outcomes

Art Studio (ARTS)

ARTS 1121 Foundations in Art 3 Credits (3)
The Foundations course will focus on a deceptively simple question. 'What is Contemporary Art, and how can we make it?' Through the exploration of basic visual design concepts, collaborative learning, and interdisciplinary studio production, this course will help us to discover what it means to be an artist in the 21st century.
Learning Outcomes
1. Create original works of art through the investigation of ideas and concepts resulting in the communication of meaning. Develop forms that convey meaning.
2. Evaluate works of art through critiques that appraise how the form communicates meaning. Justify the decisions that were made in the use and application of the chosen medium and form to communicate meaning in a work of art.
3. Analyze the differences in clarity of communication between works of art based subject matter, medium and form.
4. Apply knowledge provided in lectures to produce works of art that communicate meaning. Demonstrate an ability to express concepts in visual form.
5. Understand how the choice of subject matter, medium and form translate in the expression of concepts through discussion and description.
6. Remember the fundamental tenets of art, elements and principles of design, through the duplication of them in works of art as well their use in discussions.

View Course Outcomes

ARTS 1145G Visual Concepts 3 Credits (3)
Visual concepts is an introduction to the philosophies of art, visual thinking, and principles of visual organization. Designed to give students a broad view of aesthetic traditions, ideologies, and techniques basic to the creation and evaluation of art. Principles and concepts are taught in a common lecture and applied in parallel small studio sections. For non-art majors only. (2+4P)
View Course Outcomes

ARTS 1240 Design I 3 Credits (3)
This course introduces the fundamentals of two-dimensional design as it applies to fine art and commercial contexts. Emphasis will be on basic color theory, elements of dynamic composition, vocabulary of visual arts and design, and development of visual conceptual skills. Students will use a variety of materials and techniques.
Learning Outcomes
1. Produce art works that apply and organize the elements of two-dimensional form (line, shape, value, texture, color and space).
2. Produce artworks that apply the principles of two-dimensional design (harmony, variety, repetition, balance, rhythm, proportion, dominance, movement, and economy).
3. Demonstrate effective use of materials and techniques with consideration for craftsmanship and presentation.
4. Use visual art vocabulary in the development and critique of work
5. Explore concepts and ideas: from conceptual, realistic/referential to non-representational.

View Course Outcomes

ARTS 1250 Design II 3 Credits (3)
This course introduces the basic formal (aesthetic), spatial, and physical aspects of 3-D form as they can be applied to sculptural and functional design. Techniques that explore structure, mass, volume, scale, surface, form, and function are covered, along with various media, which may include paper, wood, clay, and/or metal.
Learning Outcomes
1. Apply the artistic qualities of the elements of art and principles of design to three-dimensional form.
2. Create 3-dimensional form using varied sculptural methods, construction techniques and media.
3. Produce 3 D design projects safely with proper use of equipment and materials.
4. Apply realistic, referential, and abstract concepts and ideas to projects.
5. Demonstrate knowledge of 3-D related art vocabulary, origin and trends in sculpture, and 3-D design fundamentals.

View Course Outcomes

ARTS 1310 Introduction to Ceramics 3 Credits (3)
This course introduces the technical processes and conceptual concerns of working with ceramic material. Various methods of forming functional and expressive works out of clay are explored. Methods used include handbuilding and throwing, basic clay bodies, slip and glaze, and atmospheric firing. (2+4P)
Learning Outcomes
1. Explain the transformation of the ceramic material from raw clay form to glazed ceramic object
2. Demonstrate proficiency of technical ceramic skills
3. Explain larger concepts and design principles
4. Apply basic 3-D design principles in the formation of a work of art, as they apply to the ceramic media
5. Create ceramic works of art based on conceptual prompts
6. Critically evaluate a variety of artwork
7. Gain an understanding of the history of ceramic art from a multicultural perspective

View Course Outcomes

ARTS 1320 Ceramics I 3 Credits (3)
An introduction to the medium of clay incorporating hand building and wheel throwing to introduce the student to both the sculptural and utilitarian uses of clay. The student will also be introduced to a variety of glazing and firing techniques. (2+4P)
Learning Outcomes
1. Demonstrate through critical discourse or writing an introductory knowledge of the history of ceramics, and ceramic language and terminology.
2. Demonstrate through mechanical application an introductory knowledge of the properties of clays, glazes, and a variety firing techniques.
3. Produce a body of work that exemplifies good ceramic design through the effective use of form, surface, and color.
4. Through the production a body of work demonstrate competency in hand building and throwing on the wheel.

View Course Outcomes

ARTS 1410 Introduction to Photography 3 Credits (3)
This course introduces the making of photographic images from a broad viewpoint to consider both as an art practice and as a cultural practice. The course covers technical information on camera use and functionality, composition and visual design, digital workflow and editing, professional functions of manipulating and enhancing images, and printing correctly and effectively. The historical aspects of photography are also covered. (2+4P) Repeatable: up to 3 credits.
Learning Outcomes
1. Gain fluency with basic camera function as well as a working knowledge of other photographic equipment and software to produce technically competent photographs
2. Have a familiarity with current image-editing software to enhance images as well as developing a digital workflow for the management of digital images
3. Be able to develop creative solutions to visual photographic problems
4. Gain awareness of contemporary issues in contemporary art photographic practice that can be applied to the one's own individual practice
5. Develop the ability to critically analyze and discuss photographic images
6. Print and produce a final project that demonstrates synthesis of ideas presented in the course readings, critiques, and individual research
7. Demonstrate photographic terminology, and the many ways photographs function in society, both currently and historically

View Course Outcomes

ARTS 1520 Digital Media I 3 Credits (3)
This course provides an introduction to two of Adobes major software applications, Illustrator and Photoshop, which are essential in creating artwork, designing promotional materials, websites and more. Part of the course deals with creating a variety of documents using the major tools of each program, and gaining an understanding of the contemporary graphic design industry and basic elements and principles of design. (2+4P)
Learning Outcomes
1. Demonstrate appropriate skills in configuring and navigating computer systems software applications as appropriate to digital image making needs including organization of files using keywords and running batch processes.
2. Exhibit an understanding of a layer-based bitmap editing program, through photo retouching, precise use of selection tools, and color adjustment techniques.
3. Create imagery using a vector-based illustration program which demonstrates an understanding of vector-based drawing tools.
4. Integrate the use of bitmap and vector images using bitmap and vector-based image making applications to demonstrate a basic understanding of composition, color, and appropriate image size and resolution.

View Course Outcomes

ARTS 1610 Drawing I 3 Credits (3)
This course introduces the basic principles, materials, and skills of observational drawing. Emphasis is placed on rendering a 3-D subject on a 2-D surface with visual accuracy. Other topics include historical and contemporary references as well as an investigation of linear perspective, line, value, shape, space and composition. (2+4P)Repeatable: up to 3 credits.
Learning Outcomes
1. Produce drawings that demonstrate techniques and mechanics of observational drawing.
2. Demonstrate competency in the following practices: measuring and sighting, gesture, contour line, negative space, shape, value, space, volume, plane and texture.
3. Create drawings primarily from observation with black and white traditional drawing media.
4. Demonstrate effective verbal or written response to one's own art and the art of others.

View Course Outcomes

ARTS 1630 Painting I 3 Credits (3)
This course introduces the tradition of painting as a medium for artistic expression. Students will investigate materials, tools, techniques, history and concepts of painting. Emphasis is placed on developing descriptive and perceptual skills, color theory, and composition. (2+4P)Repeatable: up to 3 credits.
Prerequisite(s): ARTS 1610
Learning Outcomes
1. Produce paintings that demonstrate the tradition of methods, techniques, materials, and tools of oil painting.
2. Construct a variety of support structures and grounds on which paintings are created
3. Examine the historical origins and practices of painting from the personal, social and cultural perspective.
4. Identify and apply environmentally safe painting practices, care of tools, equipment, and facilities, as well as disposal of mediums, solvents and paints.
5. Apply basic color theory to representational and non-representational painting.

View Course Outcomes

ARTS 1710 Introduction to Printmaking 3 Credits (3)
This course provides direct experience of exploring basic printmaking processes, including relief, intaglio, and monoprint processes, as well as the investigation of materials/media, tools, techniques, history, and concepts of printmaking. Emphasis is given to solving problems through thematic development while producing a portfolio of prints. (2+4P)
Learning Outcomes
1. Properly operate a printing press and safely handle materials and equipment.
2. Demonstrate an adequate ability to utilize basic historical printmaking techniques that are widely relevant to contemporary, artistic expressions.
3. Utilize formal elements of art and design (line, shape, value, texture, space, and color), to create prints that are formally sophisticated.
4. Create imagery that contains conceptual depth, which can be interpreted by viewers with regard to social, cultural, political, geographical, and/or psychological experiences and relevance.

View Course Outcomes

ARTS 1711 Computer-Based Illustration 3 Credits (3)
Introduction to the principles of computerized drawing and design. Using the basic concepts, drawing tools, and vocabulary of Adobe Illustrator. (2+4P)
Prerequisite(s): ARTS 1610, ARTS 1240
Learning Outcomes
1. Demonstrate drawing with the pen tool.
2. Demonstrate the use of blending color and creating shapes.
3. Create spot colors and effectively use them in a page layout.
4. Demonstrate formatting and creating typography.
5. Demonstrate the use of layers, effects, graphic styles, symbols, and brushes
6. Demonstrate competency in creating digital graphics using of Adobe Illustrator software

View Course Outcomes

ARTS 1712 Digital Graphics 3 Credits (3)
Importing and exporting images and text into various desktop publishing formats. Exploring imaging, drawing, and page layout applications. Introduction to typography. (2+4P)
Prerequisite(s): ARTS 1520
Learning Outcomes
1. Demonstrate competency in the use of InDesign software.
2. Create appropriate visual solutions based on target marketing information.
3. Demonstrate competency in the design and production of advertising and promotional materials.
4. Present ideas and concepts effectively and competently.
5. Visually demonstrate design solutions to be used in a portfolio

View Course Outcomes

ARTS 1713 Web Page Design 3 Credits (3)
Introduction to the creation of well-designed and organized Web sites. Emphasis on building creative but functional user-friendly sites. Introduction to HTML, Flash, Java Script, and Web-authoring software. (2+4P)
Prerequisite(s): ARTS 1520
Learning Outcomes
1. Outline the structure and functionality of a typical website.
2. Demonstrate design and layout skills.
3. Demonstrate competency in the use of Dreamweaver software.
4. Demonstrate competency in the use of photo editing software.
5. Demonstrate skills learned for website functionality.
6. Create an Internet compatible website.

View Course Outcomes

ARTS 1810 Jewelry and Small Metal Construction I 3 Credits (3)
This course introduces the basic techniques, materials, and tools traditionally used in the creation of jewelry and/or small-scale sculptural objects.
Learning Outcomes
1. Apply basic jewelry fabrication techniques (such as: piercing, cold connections, soldering, metal forming, casting and stone setting) to complete projects.
2. Create design sketches of the objects prior to fabrication.
3. Demonstrate knowledge of materials and safe practices for making jewelry, as well as small functional and non-traditional objects.
4. Analyze projects through critiques, oral presentations, and discussions

View Course Outcomes

ARTS 2010 Portfolio Development 3 Credits (3)
This course presents the practicalities of building an art career with emphasis on developing a professional portfolio through visual aids, resumes, statements, and presentations. It covers professional practices of the studio artist including self-promotion, contracts, research tools for exhibition venues and other art related opportunities. (2+4P)
Prerequisite(s): ARTS 1712, ARTS 2611, and ARTS 1520
Learning Outcomes
1. Develop a portfolio package with visual aids, photographic documentation, resumes, bios and artist statements.
2. Analyze the qualifications, procedures and portfolio requirements necessary for professional art related opportunities.
3. Complete an oral presentation on a series of personal works.
4. Distinguish pathways for navigating the business side of being a professional artist.

View Course Outcomes

ARTS 2355 Stained Glass 3 Credits (3)
Instruction in the fundamental fabrication and design techniques for stained glass. Introduction to visual decision making skills, historical, and critical issues of the medium. (2+4P)
Learning Outcomes
1. Demonstrate an understanding of the theory, principles and procedures that comprise the art and science of designing at least four (40 stained glass techniques through both written and verbal assessments, as well as, actual completed examples of each technique.
2. Properly select and safely employ various glass studio tools, instruments, procedures, methods and techniques in the fabrication processes of stained glass.
3. Select and apply suitable problem-solving strategies in a practical studio environment.
4. Work cooperatively in a studio classroom.
5. Relate historical background and significant developments of glass in general and stained glass in particular.
6. Understand the chemical processes associated with various processes used in working with and manipulating glass.
7. Develop critical thinking and problem solving strategies in various stained glass fabrication technics.
8. Be able to critically analyze, assess and appreciate the value of glass works of every kind.

View Course Outcomes

ARTS 2393 Art Workshop 3 Credits (3)
Varies
View Course Outcomes

ARTS 2410 Black & White Photography 3 Credits (3)
This course introduces the fundamental techniques of black and white photography, which includes camera functions and use, exposure techniques and film processing, traditional darkroom printing, and presentation of work. (2+2P) Crosslist: ARTS 1410.
Learning Outcomes
1. Demonstrate competent film development and photographic printing skills
2. Demonstrate an emerging understanding of aesthetic, compositional, conceptual, and communicative tools in photography including lighting and dynamic composition techniques.
3. Be able to critically analyze and discuss photographic images using photographic terminology
4. Demonstrate proper image adjustment and correction techniques, and apply proper exposure techniques.

View Course Outcomes

ARTS 2430 Photographic Portraiture 3 Credits (3)
This course covers the study of professional photography that involves people, including studio and environmental portraits. Topics include studio and exterior lighting techniques, and selecting lighting equipment and supplies. (2+2P)
Prerequisite(s): ARTS 1410 or FDMA 1545
Learning Outcomes
1. Demonstrate successful operation of studio lighting equipment and accurately define lighting equipment terminology
2. Illustrate the principles of photographic lighting
3. Demonstrate and apply how to use and modify natural light effectively
4. Demonstrate understanding of different approaches such as formal, informal, candid, vernacular and their cultural implications
5. Distinguish historic and contemporary cultural notions informing different types of portraits.

View Course Outcomes

ARTS 2431 Introduction to Graphic Design 3 Credits (3)
Introduction to the principles of visual communication and digital media, letterforms, typography and identity marks. Projects produced using conventional and digital tools. (2+4P)
Learning Outcomes
1. Demonstrate working knowledge of the graphic design software.
2. Identify and apply basic design concepts for the purpose of visual communication.
3. Conduct visual research and create presentations on design topics.
4. Solve graphic design problems through solving fundamental communication challenges by sketching, drawing, typographic composition, use of image and color.

View Course Outcomes

ARTS 2440 Photo Finishing & Presentation 2 Credits (2)
Use of visual language for personal expression. Freelance photography; care of original photos; preparation of portfolios, photographic markets, exhibitions and judging, galleries and copyrights. Students will prepare a photographic portfolio. (1+2P)
Prerequisite(s): FDMA 1545
Learning Outcomes
1. Define your target market and create a complete "Personal Promotional Package"
2. Produce a professional Resume Cover Letter.
3. Produce a professional looking Business Card, Letterhead Mailing Labels
4. Produce a single page Promotional Piece, (and possible follow-up material)
5. Produce a PDF Formatted Portfolio (Create in Photoshop Export as PDF)
6. Produce a clean, professional looking traditional hard portfolio with 20-30 pieces
7. Present the Entire Promotional Portfolio and promo materials in a "Job Interview"

View Course Outcomes

ARTS 2610 Drawing II 3 Credits (3)
This course introduces color and colored media as an element of composition while emphasizing descriptive and perceptual drawing skills and conceptual approaches to contemporary drawing. Restricted to ART majors. (2+4P)
Prerequisite(s): ARTS 1610
Learning Outcomes
1. Create drawings in wet and dry color media.
2. Practice analyzing and visually translating observed subjects from realistic, referential, and/or objective form, to non-representational or abstract imagery in drawings.
3. Compose fully developed drawings that include a conceptual or historical basis.
4. Engage in effective written and oral critique in response to one's own art and the art of others.

View Course Outcomes

ARTS 2611 Advanced Computer-Base Illustration 3 Credits (3)
Design custom graphics and create special effects with filtering, special effects on type, graphing, technical illustrations, and three-dimensional drawing using Adobe Illustrator. (2+4P)
Prerequisite(s): ARTS 1212, ARTS 1711, and ARTS 1520
Learning Outcomes
1. Demonstrate competency in the use of Adobe Illustrator software.
2. Create appropriate visual solutions based on target marketing information.
3. Demonstrate competency in the design and production of advertising and promotional materials.
4. Present ideas and concepts effectively and competently.
5. Visually demonstrate design solutions to be used in a portfolio.

View Course Outcomes

ARTS 2616 Aspects of Drawing 2 Credits (2)
Continued work in drawing with emphasis on personal creative endeavor. Outside assignments required.
Prerequisite(s): ARTS 1610 and ARTS 2610
Learning Outcomes
1. advanced skill level in the visual dynamics of line involved in the creation of drawing.
2. advanced skill level in the visual dynamics of shape involved in the creation of drawing.
3. advanced skill level in the visual dynamics of value involved in the creation of drawing.
4. advanced skill level in the visual dynamics of color involved in the creation of drawing.
5. advanced skill level in the visual dynamics in the combination of line, shape, value and color involved in the creation of drawing.

View Course Outcomes

ARTS 2630 Painting II 3 Credits (3)
This course focuses on the expressive and conceptual aspects of painting, building on the observational, compositional, technical, and critical skills gained previously. Students will investigate a variety of approaches to subject matter, materials, and creative processes through in-class projects, related out-of-class assignments, library research or museum/gallery attendance, written responses, and critiques. (2+4P)
Prerequisite(s): ARTS 1610 and ARTS 1630
Learning Outcomes
1. Produce paintings building on the skills and techniques learned in Painting I
2. Solve unique format, support, ground, over and under texturing surface challenges
3. Practice analyzing and translating observed subjects from realistic, referential, and/or objective form, to non-representational imagery
4. Create paintings that explore personal content, stylization, symbolism, narrative, and/or iconography.

View Course Outcomes

ARTS 2635 Painting III 2 Credits (2)
Continuation of ARTS 2630. Prerequisites: ARTS 1610, ART 1240 (for art majors), ART 1630.
Learning Outcomes
1. Color mixing and color relationships
2. Create illusions of space and volume
3. The student will strengthen his or her own personal artistic style.
4. Knowledge of the proper use and maintenance of painting tools
5. Explore and learn the technique of a master painter of the past.
6. Awareness of nature, "eye hand response," and an imaginative or personal use of the medium.
7. Awareness of the creative process, exploring unforeseen possibilities
8. An ability to work independently.
9. Understanding of painting styles and arts vocabulary.

View Course Outcomes

ARTS 2839 Introduction to Sculpture 3 Credits (3)
Beginning sculpture students 'explore space' while learning new processes and skills, including mold making, welding and woodworking.
Learning Outcomes
1. Be able to utilize a variety of traditional materials and sculpture processes, including: mold making, metal fabrication/wood fabrication, and the creative integration of mixed media.
2. Learn to differentiate between objects and installations, and be prepared to explore sculpture in upper division, topics based courses.

View Course Outcomes

ARTS 2993 Workshop in Art 0.5 Credits (0.5)
Required for all freshman and sophomore Art majors for four semesters, this workshop is designed to build professional student cohorts within the Department of Art; incorporate visiting artist and scholar lectures into the curriculum; and actively involve students in exhibitions and gallery and departmental events.
Repeatable: up to 4 credits
View Course Outcomes

ARTS 2996 Topics in Art Studio 1-3 Credits
Specific subjects and credits to be announced in the Schedule of Classes.
Repeatable: up to 9 credits
View Course Outcomes

Astronomy (ASTR)

ASTR 1115G Introduction to Astronomy (Lec+Laboratory) 4 Credits (4)
This course surveys observations, theories, and methods of modern astronomy. The course is predominantly for non-science majors, aiming to provide a conceptual understanding of the universe and the basic physics that governs it. Due to the broad coverage of this course, the specific topics and concepts treated may vary. Commonly presented subjects include the general movements of the sky and history of astronomy, followed by an introduction to basic physics concepts like Newtons and Kepler's laws of motion. The course may also provide modern details and facts about celestial bodies in our solar system, as well as differentiation between them - Terrestrial and Jovian planets, exoplanets, the practical meaning of dwarf planets, asteroids, comets, and Kuiper Belt and Trans-Neptunian Objects. Beyond this we may study stars and galaxies, star clusters, nebulae, black holes, and clusters of galaxies. Finally, we may study cosmology--the structure and history of the universe. The lab component of this course includes hands-on exercises that reinforce concepts covered in the lecture, and may include additional components that introduce students to the night sky.
Repeatable: up to 4 credits.
View Course Outcomes

ASTR 1116 Introduction to Astronomy Lab, Special 1 Credit (1)
This lab only listing exists only for students who may have transferred having taken a lecture only introductory astronomy class, to all them to complete the lab requirement to fulfill the general education requirement.
Prerequisite(s): Must have passed Introduction to Astronomy lecture only
View Course Outcomes

ASTR 1120G The Planets 4 Credits (4)
Comparative study of the planets, moons, comets, and asteroids which comprise the solar system. Emphasis on geological and physical processes which shape the surfaces and atmospheres of the planets. Laboratory exercises include analysis of images returned by spacecraft. Intended for non-science majors, but some basic math required.
Repeatable: up to 4 credits.
View Course Outcomes

Automation & Manufactoring (MAT)

MAT 102 Print Reading for Industry 3 Credits (3)
Reading, interpretation, and revisions of industrial technical drawings common to manufacturing, Aerospace, machine parts, electrical, hydraulic, and Pneumatic drawings. Interpretation of engineering drawings and related shop calculations. Introduction (2+2P)
Crosslist: AERT 113
View Course Outcomes

MAT 105 Introduction to Manufacturing 3 Credits (3)
Introduction to manufacturing evolution from basic assembly process to modern automated processes. Covers history, employability, soft skills, quality measurements, teamwork concept, production requirements, and considerations in plan layout and design. Minimum math proficiency of CCDM 114 required or math placement into MATH 1215 or higher.
Crosslist: AERT 112 (2P)
View Course Outcomes

MAT 106 Applied Manufacturing Practices 3 Credits (3)
Course will illustrate how various products are manufactured along with associated process. Mechanical behavior such as bending, cold worked, strained, work hardened, and heat transfer will be emphasized as well. In lab, students will learn how to make selected products starting from prints to complete projects including quality control. Cross listed with: AERT 114. (2+2P)
View Course Outcomes

MAT 110 Machine Operation and Safety 3 Credits (3)
Introduction to the operation and safety aspects of various types of machinery and equipment, including both mechanical and electrical machines, Rigid Tubing, and Flexible Lines. Maintenance and safety operation of industrial equipment will also be covered. Cross listed with: AERT 115. (2+2P)
Learning Outcomes
1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

MAT 130 Applied Industrial Electricity I 4 Credits (4)
Electrical safety, AC and DC circuits, use and care of common measuring instrumentation, schematic and wiring diagrams, electromagnetism, National Electric Code branch circuits. (3+2P)
Prerequisite(s): MATH 1215 or OETS 118
Learning Outcomes
1. Describe applications of preventive and corrective maintenance on automated industrial production machines.
2. Explain troubleshooting procedures using system block.
3. Define the various types of electromechanical systems and equipment and how they operate.

View Course Outcomes

MAT 135 Applied Industrial Electricity I 4 Credits (4)
Relationship between motor power, speed, and torque, basic application of relay circuits, motor control circuits, inductance and capacitance factors, transformers, solid state devices circuits and applications. (3+2P)
Prerequisite(s): MAT 130
View Course Outcomes

MAT 145 Electromechanical Systems for Non-Majors 4 Credits (4)
Electromechanical system interfacing. Principles and applications of preventive and corrective maintenance procedures on automated industrial production machines using system technical and maintenance manuals to develop troubleshooting procedures using systems block and schematic diagrams. (3+3P)
View Course Outcomes

MAT 221 Cooperative Experience I 6 Credits (6)
Supervised cooperative work program. Student is employed in an approved occupation and rated by employer and instructor. Student meets in a weekly class. Graded S/U.
View Course Outcomes

MAT 234 Industrial Electricity Maintenance 3 Credits (3)
Introduction into electrical systems, theory and uses for the different types of motors used in the industry and related industrial safety practices. DC, AC stepper and servo motors, motor speed and torque, motor performance, and efficiency, motor control fundamentals using variable frequency drives, vector controls, servo and stepper drives. (2+2P)
View Course Outcomes

MAT 265 Special Topics 1-6 Credits
Course subtitled in the Schedule of Classes.
Repeatable: for a maximum of 12 credits
View Course Outcomes

Automotive Technology (AUTO)

AUTO 111 Automotive Mechanics Basics 4 Credits (4)
Basic maintenance procedures of the major components of the automobile using service repair manuals, hand and power tools, precision measurement equipment, fasteners and chemicals.
View Course Outcomes

AUTO 112 Basic Gasoline Engines 5 Credits (5)
Principles of gasoline engine operation. Identification, design, function of engine components; engine disassembly and reassembly; trouble shooting, and rebuilding heads. (2+6P)
Learning Outcomes
  1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
  2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
  3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 117 Electronic Analysis and Tune-Up of Gasoline Engines 5 Credits (5)
Theory and operation of ignition and emission control systems and fuel system. Use of troubleshooting equipment and diagnostic equipment. (2+6P)
Prerequisite(s): AUTO 120
Learning Outcomes
  1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
  2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
  3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 119 Manual Transmission/Clutch 5 Credits (5)
Manual transmission, transfer cases, and clutch operating principles. Students will diagnose problems, remove and replace, disassemble, repair, and assemble units. (2+6P)
Learning Outcomes
  1. Graduates will demonstrate competence in the use of general and highly specialized tools and equipment.
  2. Graduates will read and comprehend technical information and materials from printed and electronic sources relevant to the diagnosis and repair of automotive systems.
  3. Graduates will apply technical knowledge and skills to repair, service, and maintain various types of automobiles.

View Course Outcomes

AUTO 120 Electrical Systems 4 Credits (4)
Troubleshooting and repair of starters, alternators, and associated circuits. Reading electrical diagrams, diagnosis and repair of electrical accessories. (2+4P)
View Course Outcomes

AUTO 125 Brakes 5 Credits (5)
Theory of operation, diagnosis, repair, and maintenance of disc and drum brakes; safety and use of special tools. (2+6P)
View Course Outcomes

AUTO 126 Suspension, Steering, and Alignment 5 Credits (5)
Types of steering systems, suspension maintenance and repair, four-wheel alignment procedures. (2+6P)
View Course Outcomes

AUTO 127 Basic Automatic Transmission 4 Credits (4)
Theory and operation of the automatic transmission; maintenance, troubleshooting, diagnosis, and repair of components. (2+4P)
View Course Outcomes

AUTO 132 Automotive Air-Conditioning and Heating Systems 4 Credits (4)
Theory and operation, reading schematic diagrams, troubleshooting, repair, and replacement operations performed. (2+4P)
View Course Outcomes

AUTO 137 Fuel Systems and Emission Controls 4 Credits (4)
Covers theory and operation of fuel system and emission control. Troubleshooting, vacuum diagrams, overhaul, repair and adjustment of carburetion and fuel injection. Prerequisites: AUTO 117. (2+4P)
View Course Outcomes

AUTO 162 Advanced Non-Structural Repair I 4 Credits (4)
This course will involve the students in all phases of minor non-structural collision damage repairs. It will encompass sheet metal repair, advanced panel replacement and alignment. (2+4P)
View Course Outcomes

AUTO 163 Advanced Non-Structural Repair II 4 Credits (4)
This course is a continuation of AUTO 162 with emphasis in all phases of minor non-structural damage repair. The student will be instructed in sheet metal repair and panel alignment as well as the R&I of automotive glass and related components. (2+4P).
Prerequisite(s): AUTO 162
View Course Outcomes

AUTO 164 Automotive Industry Collision Repair I 4 Credits (4)
This advanced course is a continuation of AUTO 162, and 163. This course will incorporate all areas of major non-structural collision damage repair. Through practical application the student will learn how to effectively repair all heavy collision damage using current I-CAR repair standards and procedures. (2+4P).
Prerequisite(s): AUTO 163
View Course Outcomes

AUTO 165 Automotive Industry Collision Repair II 4 Credits (4)
This advanced course is a continuation of AUTO 164 with emphasis on time efficiency. This course will involve the student in all areas of major collision damage repair. The student will be exposed to all applicable I-CAR industry procedures and standards involved in sheet metal and composite panel repair. (2+4P).
Prerequisite(s): AUTO 164
View Course Outcomes

AUTO 172 Introduction to Automotive Refinishing 4 Credits (4)
This course is designed to incorporate all aspects of surface preparation, paint safety, refinishing materials, and refinishing fundamentals. Students will receive instructions for the application of acrylic enamel and base coat/clear coat refinishing systems. (2+4P)
View Course Outcomes

AUTO 174 Intermediate Automotive Refinishing 4 Credits (4)
This course encompasses all areas of surface preparation, damage repair and refinishing procedures that are necessary for achieving a proper spot repair. Students will also be exposed to safe work habits in the refinishing area and correct automotive detailing procedures. (2+4P)
Prerequisite(s): AUTO 172
View Course Outcomes

AUTO 176 Automotive Color Adjustment & Blending 4 Credits (4)
This course will help develop the skills needed to match any type of paint. It will expose the student to color theory, color evaluation, color matching, and other color adjustment factors. The student will be instructed in multiple panel paint blending techniques as well. (2+4P)
Prerequisite(s): AUTO 174
View Course Outcomes

AUTO 178 Automotive Overall Refinishing 4 Credits (4)
This course encompasses all areas of automotive refinishing. This advanced course is a continuation of AUTO 176 with emphasis in achieving industry refinishing times and standards consistent with that of I-CAR. The student will be exposed to surface preparation and refinishing techniques involved with overall coat/clear coat refinishing system. (2+4P)
Prerequisite(s): AUTO 176
View Course Outcomes

AUTO 181 Frame and Structural Repair 4 Credits (4)
This course will involve the student in all areas of frame and structural damage repairs. Through theory and practical application, the student will learn how to diagnose and repair various types of damage include: mash, twist, sag, and side sway. This course will expose the students to safe work habits while using measuring and straightening equipment. (2+4P)
Prerequisite(s): AUTO 165
View Course Outcomes

AUTO 182 Structural Panel Replacement 4 Credits (4)
This course is a continuation of AUTO 181 with infancies in structural panel replacement. The student will be exposed to frame and unibody measuring equipment and their proper use in sectioning procedures. Through theory and practical application the student will learn how to ID structural components, properly separate spot welds, position and weld new body panels in place. (2+4P)
Prerequisite(s): AUTO 181
View Course Outcomes

AUTO 221 Cooperative Experience I 1-6 Credits
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student will meet in a weekly class. Graded S/U.
View Course Outcomes

Bilingual Education (BLED)

BLED 1110 Introduction with Internship in Bilingual Education/ESL 3 Credits (3)
An overview of the American Education system with emphasis on organization, governance, law, demographics, and professional practice. Will include supervised experience in bilingual education/ESL elementary settings for prospective bilingual education/ESL teachers.
Learning Outcomes
1. Complete 24 hours field observations in a classroom.
2. Articulate the attributes of an education professional entering the field.
3. Construct an individualized map to teacher licensure in the State of New Mexico.
4. Differentiate and summarize the major educational philosophies and historical events that have influenced the progression of educational practice.

View Course Outcomes

BLED 2110 Introduction to Bilingual and ESL Education 3 Credits (3)
This course provides a historical overview of bilingual and ESL education including an emphasis on present trends and practices. Discussions of the aspects of bilingualism at both an individual and a societal level are included. Repeatable: up to 3 credits.
Learning Outcomes
1. Develops awareness in the learner of the value of cultural diversity.
2. Prepares and assists students to interact successfully in cross cultural settings.
3. Recognizes and accepts different patterns of child development within and between cultures in order to formulate realistic instructional strategies.
4. Recognizes the similarities and differences between mainstream American and other cultures and the potential conflicts and opportunities they may create for students.
5. Demonstrates knowledge of the effects of culture and socio-economic variables in learning styles. English Language Development The bilingual teacher:
6. Demonstrates knowledge of the basic nature of language, language acquisition, language variation, language change, and the relation of language to society and culture.
7. Demonstrates knowledge of the nature of bilingualism and the process of becoming bilingual. Instructional Methodology The bilingual teacher:
8. Demonstrates knowledge of the historical, legal, theoretical, and sociological foundations of programs of instruction for second language learners.
9. Demonstrates knowledge of theories of first and second language acquisition. 1
10. Utilizes teaching methods appropriate to various age and language groups.

View Course Outcomes

Biology (BIOL)

BIOL 1120G Human Biology 3 Credits (3)
This course is an introduction to modern biological concepts with an emphasis on the relevance to humans and their relationships with the environment.
Learning Outcomes
1. Describe the process of scientific inquiry in biology.
2. Solve problems scientifically as related to human biology.
3. Communicate biologic information.
4. Apply quantitative analysis to scientific problems in biology.
5. Apply scientific thinking to real world problems.

View Course Outcomes

BIOL 1120L Human Biology Laboratory 1 Credit (1)
This course introduces exercises, experiences, and activities exploring biological concepts and theories relevant to humans and their relationship to the environment in a laboratory setting.
Prerequisite(s)/Corequisite(s): BIOL 1120G
Learning Outcomes
1. Understand general principles of cell structure and function.
2. Understand general principles of genetics.
3. Understand basic human anatomy and physiology.
4. Communicate scientific information effectively.
5. Demonstrate an understanding of the scientific method.
6. Knowledge of appropriate laboratory skills
7. Apply quantitative reasoning and scientific thinking to real world problems.

View Course Outcomes

BIOL 1130G Introductory Anatomy & Physiology (non majors) 4 Credits (4)
This course introduces the anatomy (structure) and physiology (function) of the human body, which includes the study of basic chemistry, molecules, cells, tissues, organs, organ systems, and terminology related to these concepts. (3+3P). Repeatable: up to 4 credits.
View Course Outcomes

BIOL 1190G Contemporary Problems in Biology 4 Credits (4)
Fundamental concepts of biology will be presented using examples from relevant problems in ecology, medicine and genetics. For nonscience majors only. (3+3P)
View Course Outcomes

BIOL 1996 Topics in Biology 1-3 Credits
Introductory level coverage of biological topics. Repeatable: up to 9 credits.
View Course Outcomes

BIOL 2110G Principles of Biology: Cellular and Molecular Biology 3 Credits (3)
This course introduces students to major topics in general biology. This courses focuses on the principles of structure and function of living things at the molecular, cellular and organismic levels of organization. Major topics included are introduction to the scientific process, chemistry of cells, organization of cells, cellular respiration, photosynthesis, cell division, DNA replication, transcription, and translation. Must be taken with BIOL 2110L to meet general education requirements. Repeatable: up to 3 credits.
Prerequisite(s)/Corequisite(s): a C- or better in MATH 1215 or higher and a C- or better in CHEM 1120G or CHEM 1215G or CHEM 1216
View Course Outcomes

BIOL 2110L Principles of Biology: Cellular and Molecular Laboratory 1 Credit (1)

This course introduces students to major topics in general biology. This courses focuses on the principles of structure and function of living things at the molecular, cellular and organismic levels of organization. Major topics included are introduction to the scientific process, chemistry of cells, organization of cells, cellular respiration, photosynthesis, cell division, genetics, DNA replication, transcription, and translation.Repeatable: up to 1 credits.

Prerequisite(s)/Corequisite(s): BIOL 2110G;Prerequisite(s): MATH 1215 or higher, and a C- or better in CHEM 1120G or CHEM 1215G or CHEM 1216

Learning Outcomes

1. Describe and apply the scientific method to solve problems in biological context
2. Demonstrate knowledge of laboratory safety skills and procedures.
3. Practice principles of scientific method while conducting laboratory activities and experiments.
4. Perform laboratory activities using relevant laboratory equipment, chemical reagents, and supplies to observe biological specimens, to measure variables, and to design and conduct experiments.
5. Operate light microscopes, prepare wet mount slides, and use stains.
6. Exhibit ability to use pipettes and other volumetric measuring devices, chemical glassware, balances, pH meters or test papers, spectrophotometers, and separation techniques, such as chromatography and/or electrophoresis to perform activities relevant to other course competencies.
7. Analyze and report data generated during laboratory activities and experiments.

View Course Outcomes

BIOL 2210 Human Anatomy and Physiology I for the Health Sciences 4 Credits (4)

This course is the first of two that serve as an introduction to human anatomy and physiology for biology majors and allied health students. The course entails describing, explaining, and analyzing structure and function from the submicroscopic to the organismal level with emphasis on anatomic, directional, and sectional terminology, basic cellular structure and metabolism, tissue differentiation and characteristics, and organ system structure and function; Specifically the integumentary, skeletal, muscular, and nervous systems. (3+3P)

Prerequisite(s)/Corequisite(s): CHEM 1120G or CHEM 1215G

View Course Outcomes

BIOL 2210C Human Anatomy and Physiology I Lecture & Laboratory 4 Credits (4)

Combined BIOL 2210 and BIOL 2210L.

Learning Outcomes

1. Discuss the relationship between cells, tissues, organs, and organ systems, and explain how structure is related to function.
2. Describe the major structures of the skin and explain how the skin functions as an essential body organ.
3. Identify the physiological process of bone tissue and explain bone structure and articulations.
4. Explain the structure and function of muscle tissue.
5. Describe the structure and function of the nervous system.

View Course Outcomes

BIOL 2221 Human Physiology 3 Credits (3)

Physical and chemical operation of the organs and systems of the human body.

Prerequisite(s): Grade of at least C- in BIOL 2110G; BIOL 2110L; CHEM 1215G or CHEM 1120G

Learning Outcomes

1. Understand the central physiological principle of homeostasis
2. Be able to explain why concentration gradients are essential to maintain homeostasis
3. Understand the regulation of homeostasis by neuronal / endocrine chemical messengers
4. Understand that changes in bodily function occur throughout the entire life span of the human animal
5. Incorporate the importance of evolutionary biology to your understanding of human disease
6. Teach a physiological concept to your classmates
7. Design experiments to test physiological concepts
8. Put in plain words how the laws of thermodynamics can explain human disease.

View Course Outcomes

BIOL 2225 Human Anatomy and Physiology II 4 Credits (4)

This course is the second of two that serve as an introduction to human anatomy and physiology for biology majors and allied health students. The course entails describing, explaining, and analyzing structure and function from the submicroscopic to the organismal level with emphasis on specific cellular, tissue, and organ structure and physiology, and organ system structure and function; specifically the endocrine, cardiovascular, respiratory, urinary, and reproductive systems. Additionally, an analysis of these concepts is included: fluid and electrolyte balance, pregnancy, growth and development from zygote to newborn, and heredity. (3+3P)

Prerequisite(s): BIOL 2210, CHEM 1120G or CHEM 1215G

View Course Outcomes

BIOL 2225C Human Anatomy and Physiology II Lecture and Laboratory 4 Credits (4)

Combined BIOL 2225 and BIOL 2225L

Learning Outcomes

1. Explain the physiological processes of the endocrine, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems.
2. Identify the anatomical structures of the endocrine, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems. define the homeostatic, structure-function, and cause-effect relationship in the endocrine, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems.

View Course Outcomes

BIOL 2310 Microbiology 3 Credits (3)
Introduction to the basic principles of microbiology, microbial pathogenesis, host defenses and infectious diseases. The course will emphasize concepts related to the structure and function of microorganisms, including their mechanisms of metabolism and growth. Host parasite interactions will also be emphasized, including mechanisms of microbial pathogenesis and mechanisms of host defenses against infectious diseases.
Prerequisite(s): CHEM 1120G or CHEM 1215G or CHEM 1225G
Corequisite(s): BIOL 2310L
Learning Outcomes
1. Describe and compare the structure and function of prokaryotic and eukaryotic cells.
2. Describe and compare the techniques used for staining of and microscopic observation of bacteria including morphology.
3. Describe the nutritional requirements for bacterial growth and the impact of environmental factors on bacterial growth (temperature, pH, oxygen, etc.).
4. Describe and compare the mechanisms of aerobic respiration, anaerobic respiration, and fermentative metabolism.
5. Describe the mechanism of bacterial growth by binary fission, and laboratory methods used for observing and measuring bacterial growth.
6. Describe the mechanisms of bacterial DNA replication, RNA transcription, and translation, and compare and contrast with eukaryotic cells.
7. Describe the structure and replication strategies of viruses.
8. Describe and contrast mechanisms of innate nonspecific immunity and adaptive specific immunity.
9. Describe immune hypersensitivity reactions, autoimmune diseases, and immunodeficiency diseases. 1
10. Differentiate between host microbe relationships, mechanisms of microbial pathogenesis, differentiate between communicable and noncommunicable diseases and describe mechanisms of direct and indirect transmission of communicable diseases.

View Course Outcomes

BIOL 2310L Microbiology Laboratory 1 Credit (1)
This course will emphasize both the theory and hands-on application of techniques used in a microbiology laboratory for the growth and identification of bacterial species. Students will learn microscopy skills and staining techniques for the observation of bacteria. Students will also learn aseptic techniques used for isolation of bacteria, inoculation of cultures, and interpretation of selective and differential growth media for the identification of bacterial species. (3P) Provides lab.
Prerequisite(s): BIOL 2310 or BIOL 2320 or concurrent enrollment
Provides Lab
Learning Outcomes
1. Demonstrate skills of microscopy.
2. Demonstrate skills of bacterial staining.
3. Demonstrate aseptic technique for inoculation of bacterial growth media.
4. Interpret results from selective and differential media.
5. Demonstrate appropriate use of diagnostic reagents.
6. Interpret results of diagnostic assays.
7. Identify unknown bacterial species through the use of a dichotomous key, inoculation and interpretation of laboratory assays, and application of the scientific method.

View Course Outcomes

BIOL 2320 Public Health Microbiology 3 Credits (3)
This course introduces microbiology on the health profession level. It incorporates cell structure, metabolism, growth, controls of growth, infectious epidemiology, etiology, pathogenicity, and relative virulence of pathogens. It will lead to students assessing a clinical infection scenario from the microbiological perspective that includes making diagnoses based on data from appropriate diagnostic tests, investigating appropriate treatment options, and making recommendations for prevention.
Prerequisite(s): BIOL 2110G and BIOL 2110L
Learning Outcomes
1. Identify key physical features of various infectious agents and describe their structure and function in the pathogen
2. Describe the microbiological, serological, biochemical and genetic tests that are used to identify infectious agents in a laboratory setting and be able to interpret test results in order to identify the pathogen
3. Explain how structural and metabolic differences between infectious agents and human host can be exploited for chemotherapy
4. Explain the observed effect of a particular environmental change on the growth of a given microorganism, and the relationship between bacterial growth patterns and selected foodborne illnesses
5. Describe several mechanisms by which pathogens generate genetic diversity and the role genetic diversity plays in resistance to therapy and treatment failure
6. Explain the role of innate, and adaptive immunity in host defense
7. Describe general virulence strategies used by variety of pathogens, and different types of vaccines along with recommendations for vaccinations of specific populations
8. Demonstrate understanding of signs and symptoms of selected diseases, and be able to relate disease agents with environmental reservoirs and transmission.

View Course Outcomes

BIOL 2505 Pathophysiology 3 Credits (3)

This course is designed to provide the conscientious student with a solid foundation for understanding the pathophysiological processes of the human organism. Successful completion of this course will promote the general student learning outcomes. Corequisite/Prerequisites(s): AHS 154 or BIOL 2225.

Prerequisite(s): AHS 153 or BIOL 2210

Learning Outcomes

1. To describe the general concepts of disease processes and factors associated with disease causation.
2. To identify the function of basic cellular structures, determining the process of cellular malfunctions.
3. To describe the response of the body to injury and immunologic challenge.
4. To discuss the etiology, pathogenesis, and treatment modalities of frequently occurring diseases.

View Course Outcomes

BIOL 2511 Pathophysiology I 3 Credits (3)

The first in a two-course sequence that covers changes in body physiology that result from disease or injury. Includes a general introduction to pathophysiology as well as an overview of altered cellular and tissue biology, injury, inflammation, and neoplasia. Students will also explore deviation from fluid, hemodynamic, and endocrinologic balance. Topics related to the science of pathophysiology, including pathology, pathogenesis, etiology, epidemiology, and clinical manifestations, are also discussed throughout the course where relevant. Grade of C- or higher in microbiology is recommended.

Prerequisite(s): Grade of C- or higher in BIOL 2210 and BIOL 2225

View Course Outcomes

BIOL 2512 Pathophysiology II 3 Credits (3)

The second in a two-course sequence that covers changes in body physiology that result from disease or injury. This course focuses on the pathophysiology of the nervous, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Topics related to the science of pathophysiology, including pathology, pathogenesis, etiology, epidemiology, and clinical manifestations, are also discussed throughout the course where relevant. Grade of C- or higher in microbiology is recommended. Repeatable: up to 3 credits.

Prerequisite(s): Grade of C- or higher in BIOL 2210, BIOL 2225, and BIOL 2511

Learning Outcomes

1. The different types of sensory modalities; the different dysfunctions of the general and special senses; the different pain theories discussed in class; the various aspects of the neuroanatomy and neuromodulation of pain; the various clinical descriptions of pain; the various aspects of temperature regulation; components of the pathogenesis of fever; the various disorders of temperature regulation; the various aspects of sleep disorders; the various components of visual dysfunction; and the various aspects of auditory, gustatory, and olfactory dysfunction.
2. The various alterations in cognitive systems; the various alterations in arousal; the outcomes of alterations in arousal; the various alterations in awareness; the various seizure disorders; the various data processing deficits; various alterations in cerebral hemodynamics; and alterations in neuromotor function.
3. The various disorders of the central and peripheral nervous systems; and the various disorders of the neuromuscular junction.
4. The components of normal blood; the process/stages of hematopoiesis; the various normal RBC laboratory values; the components and functions of the lymphatic system; the various types of imbalances of erythropoiesis; the various types of anemias and their causes; the various types of polycythemia and their causes; the processes related to hemostasis; the various alterations of white blood cells and their causes; and the various alterations of lymphoid and hemostatic function.
5. The various diseases of the veins; the various diseases of the arteries; the various aspects of atherosclerosis; features related to the pathogenesis and consequences of coronary artery disease; the disorders of the heart wall and their consequences; the various aspects of valvular dysfunction; aspects of the pathogenesis and manifestations of rheumatic disease; the causes, pathogenesis, and manifestations of infective endocarditis; the causes, manifestations, and pathophysiology of heart failure; and the various types of shock.
6. The various signs and symptoms of pulmonary disease; the various conditions caused by pulmonary disease/injury; the various disorders of the chest wall and pleura; and the causes, manifestations, and pathophysiology of selected pulmonary disorders.
7. The features and consequences of upper and lower urinary tract obstruction; the various types of urinary tract infection; the causes, pathogenesis, and clinical manifestations of glomerulonephritis; the various features of nephrotic and nephritic syndrome; and the various features (etiology, pathophysiology, and clinical manifestations) of both acute kidney injury and chronic kidney disease.
8. The various clinical manifestations of gastrointestinal dysfunction; the various aspects (etiology, pathophysiology, and clinical manifestations) of disorders of motility; the causes, manifestations, and pathophysiology of gastritis; features related to the causes, manifestations, and pathophysiology of peptic ulcer disease; features related to the etiology, pathogenesis and pathophysiology of selected malabsorption syndromes, inflammatory bowel diseases, diverticular disease of the colon, appendicitis, and irritable bowel syndrome; the various types of vascular insufficiency; the various disorders of nutrition and their causes and clinical manifestations; and the various

BIOL 2610G Principles of Biology: Biodiversity, Ecology, and Evolution 3 Credits (3)
This course is an introduction to the dynamic processes of living things. Major topics include the mechanisms of evolution, biological diversity, Mendelian genetics, and ecology.
Prerequisite(s)/Corequisite(s): grade of C- or better in MATH 1215 or higher, or a Math Placement Exam score adequate to enroll in mathematics courses beyond MATH 1215
View Course Outcomes

BIOL 2610L Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory 1 Credit (1)
This laboratory course is an introduction to the dynamic processes of living things. This course introduces students to the methods used in the study of Mendelian genetics, evolution, ecology, and biological diversity. Designed for students continuing in life sciences.
Prerequisite(s)/Corequisite(s): BIOL 2610G; grade of C- or better in MATH 1215 or higher, or a Math Placement Exam score adequate to enroll in mathematics courses beyond MATH 1215
Learning Outcomes
1. Describe and apply the scientific method to generate testable hypotheses in evolution and ecology.
2. Design and conduct laboratory experiments using relevant laboratory equipment and methods.
3. Analyze and report data generated during laboratory activities and experiments.
4. Communicate scientific results from experiments in evolution, ecology, and biodiversity.

View Course Outcomes

BIOL 2996 Topics in Biology 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
Repeatable: for a maximum of 6 credits.
View Course Outcomes

Building Construction Tech (BCT)

BCT 100 Building Trades I 8 Credits (8)
Equipment and general safety. Human relations, building construction surveying, footings, foundation form work, framing, sheathing, insulation. Basic electrical wiring and plumbing. Classroom instruction, on-the-job training, and problem solving. (2+12P)
View Course Outcomes

BCT 101 Introduction to Construction I 2 Credits (2)
Basic safety, including personal protective equipment, how to perform basic construction tasks safely, and what to do if an accident occurs. Includes basic construction methods.
Corequisite(s): BCT 102;BCT 103
Repeatable: up to 2 credits
View Course Outcomes

BCT 102 Introduction to Construction II 2 Credits (2)
Introduction to power and hand tools, blueprints, and basic rigging hardware and techniques.
Corequisite(s): BCT 101;BCT 103
Repeatable: up to 2 credits
View Course Outcomes

BCT 103 Introduction to Construction Laboratory 3 Credits (3)
Provides students the opportunity to practice skills they have acquired in BCT 101 and BCT 102. It includes task-oriented projects in which students can apply many of the skills and knowledge that have been presented throughout the National Center for Construction and Education Research (NCCER) Carpentry Program.
Corequisite(s): BCT 101; BCT 102
Repeatable: up to 3 credits
View Course Outcomes

BCT 104 Woodworking Skills I 3 Credits (3)
Use and care of hand tools and elementary power tools, safety procedures, and supervised project construction. (1+4P)
View Course Outcomes

BCT 105 Woodworking Skills II 3 Credits (3)
Advanced woodworking skills to include use of advanced power tools, power tool safety, and supervised construction. (1+4P)
View Course Outcomes

BCT 110 Blueprint Reading for Building Trades 4 Credits (4)
Same a DRFT 151. (2+4P)
View Course Outcomes

BCT 118 Math for Building Trades 3 Credits (3)
Geometry, algebra, arithmetic, and basic trigonometry pertaining to mathematical applications in the building trades field.
Prerequisite(s): CCDM 103 N
Crosslist: OEET 118, DRFT 118
View Course Outcomes

BCT 200 Building Trades II 8 Credits (8)
Continuation of BCT 100: roofing; exterior and interior finish; masonry; door, window, and cabinet installation. (2+12P)
View Course Outcomes

BCT 221 CO-OP I 3 Credits (3)
View Course Outcomes

BCT 255 Special Topics 6 Credits (6)
Topics to be announced in the Schedule of Classes.
Repeatable: up to 12 credits
View Course Outcomes

BCT 290 Special Problems in Building Technology 1-4 Credits
Individual studies in areas directly related to building technologies.
View Course Outcomes

Business Admistration (BUSA)

BUSA 1110 Introduction to Business 3 Credits (3)
Fundamental concepts and terminology of business including areas such as management, marketing, accounting, economics, personnel, and finance; and the global environment in which they operate.
Learning Outcomes
1. Explain how business and entrepreneurship affect the quality of life and the world around us.
2. Explain the characteristics of the different forms of business ownership.
3. Perform basic stakeholder analysis concerning accountability, ethics and social responsibility of business.
4. Demonstrate knowledge of the various dimensions of the business environment including political and legal, socio-cultural, environmental, diversity, economic, technological, and global.
5. Describe the purpose and functions of finance, operations, marketing, management, accounting, and information systems.
6. Demonstrate basic skills such as use of common business terminology, information search skills, presentation and writing skills, and team skills.
7. Describe the purpose and content of a business plan.

View Course Outcomes

BUSA 1115 Business English I 3 Credits (3)
This course focuses on the skill development with an emphasis on correct grammar, punctuation, sentence structure, vocabulary, preparation of business letters and reports, and on presenting information in a logical, forceful and acceptable form.
Learning Outcomes
1. Identify basic parts of speech
2. Use nouns, pronouns, verbs, prepositions, and conjunctions correctly.
3. Use subject/verb agreement principles correctly.
4. Demonstrate proper use of phrases and clauses and compose simple, compound, complex, and compound/complex sentence structures.
5. Demonstrate proper use of commas, semicolons and colons correctly in sentences and paragraphs.
6. Demonstrate proper grammatical usage for effective spoken and written English, in the business environment
7. Develop coherent sentences and paragraphs using transitions, pronouns, and repetition of key words
8. Utilize English skills in proofreading, editing, and writing business documents and various forms of communication such as emails, text messages, letters, reports, etc.

View Course Outcomes

BUSA 1180 Business Math 3 Credits (3)
Applies basic mathematical operations to business and accounting applications.
Learning Outcomes
1. Select and interpret relevant information in narrative problems to solve a given business situation
2. Choose appropriate formulas to solve quantitative business-related problems
3. Use formulas accurately to solve quantitative business-related problems

View Course Outcomes

BUSA 1210 Records Management 3 Credits (3)
Principles, methods and procedures for the selection, operation and control of manual and automated records systems.
Learning Outcomes
1. Recognize Records Control and Management systems.
2. Utilize vocabulary pertaining to records management.
3. Recognize the importance of using organized, efficient records management systems.
4. Recognize various kinds of filing equipment and supplies (paper and electronic).
5. Apply ARMA (Association for Records Managers and Administrators) rules in alphabetic card and correspondence filing exercises.
6. Apply procedures for maintaining and controlling records including: requisitioning, charging-out, returning, and reserving files.
7. Discuss records retention cycle including: control procedures for transferring, storing, and destruction of files.
8. Recognize the use of color as a method for improving efficiency in filing systems.

View Course Outcomes

BUSA 2120 Introduction to Global Business 3 Credits (3)
Introduces international business and the globalization of the economy. The 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.
Learning Outcomes
1. Describe important differences between international business and domestic business.
2. Synthesize the concept of globalization.
3. Define and use key terms relating to international business.
4. Identify basic trade patterns and underlying assumptions of trade theories.
5. Differentiate the major forms of operations, agreements, and organizational strategies firms may use to meet international objectives.
6. Discuss how home country, host country, and organizational cultures interact and how small business and the multinational enterprise are influenced by cultural variables.
7. Apply the strategy and structure of international business.

View Course Outcomes

BUSA 2175 Personal Development 3 Credits (3)
Development of a marketable, employable office systems person, to include interview, voice, manners, and apparel.
Learning Outcomes
1. Plan, compose and create a resume, list of references, letter of application and other job search documents.
2. Research job leads.
3. Prepare for job interviews.
4. Perform self-assessment and self-examination in order to improve soft skills.
5. Develop soft skills to improve employability and job success.

View Course Outcomes

BUSA 2230G Human Relations in Business 3 Credits (3)
This course is an examination and application of personal and interpersonal competencies and skills needed in a business setting to understand oneself, one's co-workers, employers, and customers. Students will investigate and examine attitudes, behavior, ethical behavior and cultural influences that affect the business environment. It offers structured situations in which interpersonal relationships and communications are explored.
View Course Outcomes

BUSA 2250 Work Readiness 3 Credits (3)
Instruction in methods of selecting, seeking, acquiring and retaining employment. Work success skills, business etiquette, employer expectations and workplace norms are address.
Learning Outcomes
1. Catalog personal and professional information that will be aid in career planning and job search processes.
2. Develop methods of establishing short- and long-term career goals.
3. Recognize the strengths of the various kinds of resumes and how they are used based on the one's career status and type of job being sought.
4. Explain the importance of good communication and work etiquette in job success.
5. Demonstrate how to create a professional image to increase job search success.
6. Explore career management opportunities and practices.
7. Demonstrate successful interview techniques.
8. Compare and contrast employee and employer expectations.
9. Discuss and ethical and appropriate work practices. 1
10. Prepare a job specific resume, cover letter, and follow up/thank you letter which are professional and appropriate.

View Course Outcomes

BUSA 2999 Capstone in Business Managment 3 Credits (3)
Focuses on assessment of Student Learn Outcomes for Business program of study.
Learning Outcomes
1. Apply general business, marketing and management concepts in a global environment;
2. Create and interpret financial documents (income statements, balance sheet, and profit and loss statements);
3. Work and interact with others as part of a team;
4. Systematically research and evaluate issues and problems and develop and apply possible solution;
5. Organize and express ideas clearly in verbal and written form; and
6. Apply solutions using technology to general business, marketing, and management situation.

View Course Outcomes

Business Computer Systems (BCIS)

BCIS 1110 Fundamentals of Information Literacy and Systems 3 Credits (3)
Examination of information systems and their impact on commerce, education, and personal activities. Utilization of productivity tools for communications, data analysis, information management and decision-making.
Learning Outcomes
1. Describe the social impact of information literacy and systems in relation to commerce, education, and personal activities.
2. Explain how to use the information resources legally, safely, and responsibly in relation to ethical, security, and privacy issues.
3. Evaluate bias, accuracy and relevance of information and its sources.
4. Use productivity tools for communications, data analysis, information management and decision- making.
5. Describe and use current information systems and technologies

View Course Outcomes

Business Finance (BFIN)

BFIN 1210 Principles of Banking 3 Credits (3)
Survey of banking in today's economy. Topics include language, documents and processes of banking from the fundamentals of negotiable instruments to contemporary issues.
Learning Outcomes
1. Define and explain the importance of full-service commercial banking.
2. Explain the development of commercial banking in the United States and the federal legislation that shaped its development.
3. Explain the impacts of the banking industry on the economy, the community, and individuals.
4. Describe the major functions of commercial banks and their interrelationships.
5. Explain the functions and importance of the Federal Reserve System.
6. Compare and contrast time and demand deposits.
7. Define negotiable instrument and describe the features that make an instrument negotiable.
8. Explain check paying procedures and regulations.
9. Discuss the importance, necessity and process of bank investments. 1
10. Describe the role of the bank's board of directors in establishing and overseeing lending policy and identifying basic loan categories. 1
11. Explain the concepts of liquidity and its importance to the banking industry.

View Course Outcomes

BFIN 2110 Introduction to Finance 3 Credits (3)
Introduces tools and techniques of financial management. Includes time value of money; financial planning, diversification and risk; debt and equity investment decisions; and financial statement analysis.
Prerequisite(s): OATS 106 or higher; OATS 120 or ACCT 2110; ECON 1110G or ECON 2110G
Learning Outcomes
1. Explain the time value of money and its application in decision-making, including calculating present and future values of single payment and series of payments.
2. Identify the major sources of external long-term financing for corporations.
3. Explain risk-return tradeoff as it relates to diversification.
4. Differentiate the role of finance from other related disciplines such as accounting and economics.
5. Demonstrate knowledge of capital markets and securities (debt and equity).
6. Describe basic types of financial ratios and their uses.
7. Demonstrate the ability to prepare cash flows and make qualitative judgments on the relevance of the changes from one time frame to another. Optional
8. Personal finance topics such as managing credit and investments.

View Course Outcomes

Business Law (BLAW)

BLAW 230 BUSINESS LAW 3 Credits (3)
View Course Outcomes

BLAW 2110 Business Law I 3 Credits (3)
Survey of the legal environment of business and common legal principles including: the sources of law, dispute resolution and the U.S. court systems, administrative law, tort law, contract law, agency and employment law, business structure and governance, ethics and corporate social responsibility. Explores sources of liability and presents strategies to minimize legal risk.
Learning Outcomes
1. Describe the sources of law.
2. Describe and explain dispute resolution and the court systems in the United States.
3. Describe the concepts of negligence, intentional torts and strict liability.
4. Describe and apply the essential aspects of contracts from creation, performance, breach and remedies, including basic contract law from Article 2 of the Uniform Commercial Code.
5. Explain the concept of ethics.

View Course Outcomes

Business Management (BMGT)

BMGT 112 Banks and Your Money 3 Credits (3)
Banking in today's economy: language and documents of banking, check processing, teller functions, deposit function, trust services, bank bookkeeping, loans, and investments.
Repeatable: up to 3 credits
View Course Outcomes

BMGT 140 Principles of Supervision I 3 Credits (3)
Principles of supervision emphasizing planning, organization, rating of employees and procedures to develop good morale. Introduction to interpretation of case studies.
View Course Outcomes

BMGT 201 Work Readiness and Preparation 3 Credits (3)
Instruction in methods of selection, seeking, acquiring and retaining employment. Addresses work success skills, business etiquette, employer expectation and workplace norms.
View Course Outcomes

BMGT 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and instructor. Restricted to: BMGT majors. Graded: S/U Grading (S/U, Audit).
Repeatable: up to 3 credits
View Course Outcomes

BMGT 225 Introduction to Commercial Lending 3 Credits (3)
Commercial lending overview, the lending process, portfolio management, and regulation and business development.
Prerequisite(s): BMGT 112
View Course Outcomes

BMGT 232 PERSONAL FINANCE 3 Credits (3)
View Course Outcomes

BMGT 240 Human Relations 3 Credits (3)
Human interactions in business and industrial settings. Motivation and learning experiences as related to problems of the worker and supervisor. Practical applications of human behavior.
Repeatable: up to 3 credits
View Course Outcomes

BMGT 250 Diversity in the Workplace 3 Credits (3)
Concepts of culture, diversity, prejudice, and discrimination within the domestic workforce/society.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 255 SPECIAL TOPICS II 3 Credits (3)
View Course Outcomes

BMGT 277 Entrepreneurship II - Small Business Management 3 Credits (3)
This course is designed to acquaint the student with the opportunities encountered in the management and operations of a small business enterprise.
Prerequisite(s): ENTR 1110
Repeatable: up to 3 credits
View Course Outcomes

BMGT 280 Introduction to Human Resources 3 Credits (3)
Personnel functions encompassing job analysis, recruitment, selection, training, appraisals, discipline, and terminations.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 282 Introduction to International Business Management 3 Credits (3)
Overview of the social, economic and cultural environment of international business transactions.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 285 Introduction to Manufacturing Operations 3 Credits (3)
Introduction to issues related to manufacturing, including an overview of the production function, product design and development, location, layout, forecasting, planning, purchasing, materials/inventory, and quality management.
Prerequisite(s): BUSA 1110 and (BMGT 140 or MGMT 2110)
View Course Outcomes

BMGT 286 Introduction to Logistics 3 Credits (3)
Overview on the planning, organizing, and controlling of transportation, inventory maintenance, order processing, purchasing, warehousing, materials, handling, packaging, customer service standards, and product scheduling.
View Course Outcomes

BMGT 287 Introduction to Export/Import 3 Credits (3)
Procedures and documentation for exporting and importing products. Emphasis on NAFTA regulations and other U.S. border operations crossings.
Prerequisite(s): BUSA 1110
View Course Outcomes

BMGT 290 Applied Business Capstone 3 Credits (3)
Refines skills and validates courses taken in BMGT program. Business simulations, case studies and projects used to test and improve business practices. Student must be within 25 credits of graduation. Restricted to: BMGT majors.
Prerequisite(s): BUSA 1110, and (BMGT 140 or MGMT 2110), and (BMGT 240 or SOCI 1110G or PSYC 1110G), and MKTG 2110
View Course Outcomes

Chemistry (CHEM)

CHEM 1111 Basic Chemistry 3 Credits (3)
For students whose preparatory science or math training has been deficient. Does not meet the chemistry requirement in any curriculum.
Prerequisite(s): Enhanced ACT composite score of at least 18 or a grade of C- or better in CCDM 114 N
Learning Outcomes
  1. The goals and objectives for CHEM 1111 are to equip students with the necessary problem solving skills to be successful in CHEM 1216C/1226C

View Course Outcomes

CHEM 1120G Introduction to Chemistry Lecture and Laboratory (non majors) 4 Credits (4)
This course covers qualitative and quantitative areas of non-organic general chemistry for non-science majors and some health professions. Students will learn and apply principles pertaining, but not limited to, atomic and molecular structure, the periodic table, acids and bases, mass relationships, and solutions. The laboratory component introduces students to techniques for obtaining and analyzing experimental observations pertaining to chemistry using diverse methods and equipment. (3+3P)
Prerequisite(s): CCDM 114 or MATH 1215 or higher
View Course Outcomes

CHEM 1121 General Supplemental Instruction I 1 Credit (1)
Collaborative workshop for students in General Chemistry I. Course does not count toward departmental degree requirements. Repeatable: for a maximum of 2 credits.
View Course Outcomes

CHEM 1122 General Supplemental Instruction II 1 Credit (1)
Collaborative workshop for students in General Chemistry II. Course does not count toward departmental degree requirements. Repeatable: for a maximum of 2 credits.
View Course Outcomes

CHEM 1123 Principles of Supplemental Instruction III 1 Credit (1)
Collaborative workshop for students in CHEM 110G, Principles and Applications of Chemistry. Does not count toward departmental degree requirements. Repeatable: for maximum of 2 credits.
View Course Outcomes

CHEM 1215G General Chemistry I Lecture and Laboratory for STEM majors 4 Credits (4)
This course covers descriptive and theoretical chemistry. (3+3P)
Prerequisite(s): (1) grade of C- or better in MATH 1215 or higher, or a Mathematics Placement Exam Score adequate to enroll in mathematics courses beyond MATH 1215
View Course Outcomes

CHEM 1216 General Chemistry I 4 Credits (4)
As the first of a two-semester sequence, this course teaches fundamental concepts in chemistry, including the electronic structure of atoms, chemical periodicity, nature of chemical bonds, molecular structure, the three phases of matter, etc. Designed for majors in chemical and other physical sciences, including engineering. May be appropriate for the life science major. It is assumed that the students are familiar with college algebra, chemical nomenclature, stoichiometry, and scientific measurements. The laboratory component is designed to complement the theory and concepts presented in lecture, and will introduce students to techniques for obtaining and analyzing experimental observations pertaining to chemistry using diverse methods and equipment. (3+3P) Provides lab.
Prerequisite(s): Eligible to take MATH 1250G and an ACT composite score of 22 or higher
Provides Lab
View Course Outcomes

CHEM 1225G General Chemistry II Lecture and Laboratory for STEM Majors 4 Credits (4)
This course is intended to serve as a continuation of general chemistry principles for students enrolled in science, engineering, and certain preprofessional programs. The course includes, but is not limited to a theoretical and quantitative coverage of solutions and their properties, kinetics, chemical equilibrium, acids and bases, entropy and free energy, electrochemistry, and nuclear chemistry. Additional topics may include (as time permits) organic, polymer, atmospheric, and biochemistry. The laboratory component is designed to complement the theory and concepts presented in lecture, and will introduce students to techniques for obtaining and analyzing experimental observations pertaining to chemistry using diverse methods and equipment.
Prerequisite(s): C- or better in CHEM 1215G
View Course Outcomes

CHEM 1226 General Chemistry II 4 Credits (4)
As the second of a two-semester sequence, this course teaches fundamental concepts in chemistry, including solutions, equilibria, electrochemistry, thermodynamics and kinetics. Designed for majors in chemical and other physical sciences, including engineering. May be appropriate for the life science major. It is assumed that the students are familiar with college algebra, chemical nomenclature, stoichiometry, and scientific measurements. The laboratory component is designed to complement the theory and concepts presented in lecture, and will introduce students to techniques for obtaining and analyzing experimental observations pertaining to chemistry using diverse methods and equipment. (3+3P) Provides lab.
Prerequisite(s): C- or better in CHEM 1216
Provides Lab
View Course Outcomes

CHEM 2111 Explorations in Chemistry 1 Credit (1)
The major intent of this course is to deepen your interest in chemistry and make you aware of research and career opportunities in the field. During this semester we hope to discuss both old and new developments in chemistry that impact our lives. We also want to build our communication skills that are so necessary in our profession.
Learning Outcomes
1. Understand how to use the road map for the B.S. or B.A. in Chemistry to develop a curriculum plan toward degree completion.
2. Become familiar with Chemistry and related student organizations for potential participation.
3. Understand the breadth of available undergraduate research opportunities and related training programs.
4. Identify potential career paths for students graduating with a degree in Chemistry.
5. Become familiar with resources available for exploring current topics in Chemistry.

View Course Outcomes

CHEM 2115 Survey of Organic Chemistry and Laboratory 4 Credits (4)
This course is a one -semester survey of organic and biological chemicals. Students will be introduced to nomenclature, molecular structure, properties, and reactions of hydrocarbons, alcohols, carbonyls, organic acids and bases, carbohydrates, lipids, and proteins. The handling of organic chemicals, simple organic reactions, tests for functional groups, and synthesis will be learned in the laboratory component of this course. (3+3P) Provides lab.
Prerequisite(s): C- or better in CHEM 1225G or CHEM 1226
Provides Lab
View Course Outcomes

CHEM 2120 Integrated Organic Chemistry and Biochemistry 3 Credits (3)
This course is a one semester introduction to Organic Chemistry and Biochemistry designed for students in health and environmental occupations. The course surveys organic compounds in terms of structure, physical, and chemical properties, followed by coverage of the chemistry of specific classes of organic compounds in the biological environment. students will apply course concepts to everyday organic and biological chemistry problems in preparation for careers in health and environmental fields.
Learning Outcomes
1. Identify and name basic organic compounds.
2. Construct/draw organic compounds from the names.
3. Predict the products of certain organic chemical reactions from reagents and conditions presented.
4. Recognize and name the four basic bioorganic units and certain of their derivatives and macromolecules.
5. Compare and contrast the function and location of the four bioorganic units and their macromolecules and cofactors.
6. Draw/recognize stereochemistry and explain its relevance to bioorganic molecules.
7. Discuss the pathways and functions of some of the cellular metabolic processes.
8. Recognize and describe metabolic cellular processes and macromolecular structure with respect to health and/or disease states.

View Course Outcomes

CHEM 2226 General Chemistry III 3 Credits (3)
Quantitative aspects of general chemistry: solid state structure, equilibrium, thermodynamics, and kinetics. Required of chemical science majors who have taken CHEM 1215G/1225G. (2+3P)
Prerequisite(s): CHEM 1225G
Learning Outcomes
1. describe the process of scientific inquiry
2. solve problems scientifically
3. communicate scientific information
4. apply quantitative analysis to scientific problems
5. apply scientific thinking to real world problems

View Course Outcomes

CHEM 2991 Directed Research in Chemistry 3 Credits (3)
Techniques and procedures of chemical research. (3+9P)Repeatable: for a maximum of 3 credits.
Prerequisite(s): 8 credits of chemistry and a 3.0 GPA in chemistry
View Course Outcomes

CHEM 2996 Topics in Chemistry 1-6 Credits
Specific subjects in Chemistry. These subjects will be announced in the Schedule of Classes. Repeatable: under different topics for a maximum of 12 credits.
View Course Outcomes

Child Advocacy Studies (CAST)

CAST 1110 Introduction to Child Advocacy 3 Credits (3)
This is the introductory course for child advocacy studies (CAST). It covers different models for understanding child maltreatment, types and indicators of child maltreatment, controversial topics in the field, and issues and laws related to child maltreatment in various countries around the world. Students will develop critical thinking and analytical skills in assessing child maltreatment.
Learning Outcomes
1. Demonstrate how to apply a model of critical thinking and analysis to child maltreatment issues.
2. Describe historical trends in child maltreatment and child advocacy.
3. Compare and contrast theories and models of child maltreatment.
4. Compare and contrast the indicators and consequences of different types of maltreatment.
5. Discuss cultural issues related to assessing and working with families.

View Course Outcomes

CAST 2110 Professional and Systems Responses to Child Maltreatment 3 Credits (3)
Course examines the professional and systems that respond to allegations of child abuse and neglect. Includes the differences between civil and criminal proceedings; components of a court-worthy child abuse and neglect investigation; basic child forensic interviewing; an overview of child sex offenders; and current research and controversial issues affecting the field.
Learning Outcomes
1. Define neglect, abuse, and violence including psychological, emotional, and spiritual maltreatment.
2. Describe the interpersonal dynamic of violence and abuse, and the varied and changing types of violence and abuse.
3. Identify risk factors for various categories of child abuse in the general population and identify high-risk population.
4. Describe the physical and behavioral health effects of violence, neglect, and abuse, including mental health impacts.
5. Identify the barriers to help-seeking for victimized children.
6. Describe models for intervention and prevention of child maltreatment.
7. Discuss various factors that affect children's motivation for disclosure.
8. Discuss how values, attitudes, beliefs, and experiences related to child maltreatment may effect interaction with children and families.

View Course Outcomes

CAST 2120 Prevention, Trauma Informed Treatment and Advocacy 3 Credits (3)
The purpose of this course is to prepare students to recognize the effects of child maltreatment and apply interventions strategies for children and their families. Multidisciplinary approaches to prevention, advocacy and treatment of child maltreatment survivors will be presented and discussed. Topics include violence prevention research, interdisciplinary family programs, how to advocate for survivors of child abuse, case management, working with families, mental health service and controversial issues.
Learning Outcomes
1. Be able to create goals and identify services needed by maltreating families.
2. Understand the development of psychopathology in the child related to maltreatment
3. Understand the documented effects of maltreatment such as depression, anxiety, sexualized behavior, neurobiological, suicide, and damaged ego development/ sense of self
4. Describe interdisciplinary family intervention programs such as in-home parenting programs, Stay Safe program, Incredible Years, Project Safe Care, ECFE, etc.
5. Explain mental health assessment, diagnosis, treatment, and availability of services for the survivor, the family and the offender.
6. Understand PTSD, reactive attachment disorder and other trauma responses; assessment and treatment
7. Describe issues for adolescent and adult survivors of maltreatment such as eating disorders, low self- esteem and personality disorders.
8. Identify professional issues related to maltreatment such as how to approach families and an awareness of the effect of working with families on the professional.
9. Discuss the role of interdisciplinary approaches to child maltreatment intervention in planning for the future and advocating for the rights of children 1
10. Explain violence prevention research, strategies, and programs 1
11. Understand how battering, chemical dependency/maltreatment, mental illness, chronic illnesses, disabilities, and other family stressors influence intervention with survivors, their families and the offender 1
12. Explain how issues of race, class, sexual orientation, religion, gender and social justice can influence professional practice with children who have been maltreated 1
13. Explain the role of the child advocate in addressing social justice issues associated with intervention and prevention of child maltreatment, and in promoting social change that will result in fewer incidents of child maltreatment.

View Course Outcomes

Chinese (CHIN)

CHIN 1110 Mandarin Chinese I 4 Credits (4)
This is the first semester of a two-semester sequence in first year modern standard Chinese language. A beginning Mandarin Chinese course is designed to introduce the Mandarin sound system (pinyin), basic vocabulary, Chinese characters (either in Simplified or Traditional characters), and basic grammatical concepts and structures. In order to help beginners develop their communicative competence in the four basic skills, the 5Cs (Communication, Cultures, Comparison, Connections, and Communities) will be integrated consistently into the content and exercises in the course.
View Course Outcomes

CHIN 1120 Mandarin Chinese II 4 Credits (4)
This the second semester of a two-semester sequence in first year modern Chinese (Mandarin). This course is designed for students who have taken 1st Semester Mandarin Chinese, and focuses on enhancing pronunciation and expanding the vocabulary and grammar dealing with daily activities. In order to help beginners develop their communicative competence in the four basic skills, the 5Cs (Communication, Cultures, Comparisons, Connections, and Communities) will be integrated consistently into the content and exercises in the course.
Learning Outcomes
1. Maintain a novice-mid and approach a novice--high proficiency (ACTFL) in speaking, listening, reading and writing, as well as to enhance their cultural awareness
2. Demonstrate continued mastery of the four tones used in Mandarin Chinese
3. Demonstrate continued mastery of the most commonly used characters (approximately 500-600)
4. Apply basic grammatical concepts and structures, and begin exploring intermediate grammatical concepts
5. Demonstrate continued growth in vocabulary and expressions necessary for conversation in and about real life situations
6. Understand basic phone calls, discussion of studies, school life, shopping and transportation
7. Apply the language to make simple phone calls, discuss studies, talk about school life, go shopping and use transportation
8. Continue developing basic reading and writing skills in Chinese
9. Develop further understanding of Chinese culture, compare aspects of different cultures, make connections to their daily life, and build links among communities.

View Course Outcomes

CHIN 2110 Mandarin Chinese III 3 Credits (3)
This is the first semester of a two-semester sequence in second year modern standard Chinese ("Mandarin"). This course is designed for students who have taken 1st and 2nd Semester Mandarin Chinese (or equivalence), and have a basic foundation on Chinese phonetics, characters, and grammars. In order to help students develop their communicative competence in the four basic skills, the 5Cs (Communication, Cultures, Comparisons, Connections, and Communities) will be integrated consistently into the content and exercises in the course.

Learning Outcomes

1. Maintain a novice-high and approach an intermediate-low proficiency (ACTFL) in speaking, listening, reading and writing, as well as to enhance their cultural understanding

2. Pronounce the four tones used in Mandarin Chinese comfortably

3. Demonstrate continued mastery of the most commonly used characters (approximately 600-800)

4. Apply intermediate grammatical concepts and structures

5. Demonstrate continued growth in vocabulary and expressions in a variety for conversation in and about real life situations

6. Understand topics including but not limited to simple weather reports, dinning, directions, birthday party stories, and seeing a doctor

7. Apply the language to talk about weather, order food, ask and give directions, describe birthday parties, and see a doctor (these are suggested topics, no intention to limit the topic range)

8. Continue developing paragraph-length reading and writing skills in Chinese

9. Deepen understanding of Chinese culture, compare aspects of different cultures, make further connections to their daily life, and build stronger links among communities.

View Course Outcomes

CHIN 2120 Mandarin Chinese IV 3 Credits (3)
This is the second semester of a two-semester sequence in second year modern standard Chinese ("Mandarin"). This course is designed for students who have taken 1st, 2nd, and 3rd Semester Mandarin Chinese (or equivalence), and have a good foundation on Chinese phonetics, characters, and grammars. In order to help students develop their communicative competence in the four basic skills, the 5Cs (Communication, Cultures, Comparisons, Connections, and Communities) will be integrated consistently into the content and exercises in the course.

Learning Outcomes

1. Maintain an intermediate-low and approach an intermediate-mid proficiency (ACTFL) in speaking, listening, reading and writing, as well as to strengthen their cultural understanding

2. Pronounce the four tones used in Mandarin Chinese fluently

3. Demonstrate continued mastery of the most commonly used characters (approximately 800-1000)

4. Apply more intermediate grammatical concepts and structures

5. Demonstrate continued growth in vocabulary and expressions in a variety for conversation in and about real life situations as well as simple academic settings

6. Demonstrate language skills that would help them travel or live in China

7. Understand topics including but not limited to dating, renting an apartment, sports, traveling, conversations at an airport

8. Apply the language to extend/decline invitations, rent an apartment, talk about sports, travel, check in and arrive at an airport (these are suggested topics, no intention to limit the topic range)

9. Continue developing multiple-paragraph-length reading and writing skills in Chinese 1

10. Deepen understanding of Chinese culture, compare aspects of different cultures, make further connections to their daily life, and build stronger links among communities

View Course Outcomes

Civil Engineering (C E)

C E 109 Computer Drafting Fundamentals 3 Credits (3)
(2+2P)
Crosslist: DRFT 109, E T 109
View Course Outcomes

C E 151 Introduction to Civil Engineering 3 Credits (3)
Problem solving and use of computer software for civil engineering applications.
Prerequisite(s)/Corequisite(s): MATH 1220G
Repeatable: up to 3 credits
View Course Outcomes

C E 233 Mechanics-Statics 3 Credits (3)
Engineering mechanics using vector methods.
Prerequisite(s): MATH 1521G or MATH 1521H, PHYS 1310G and cumulative GPA of 2.0
Repeatable: up to 3 credits
View Course Outcomes

C E 234 Mechanics-Dynamics 3 Credits (3)
Kinematics and dynamic behavior of solid bodies utilizing vector methods. Prerequisite(s:) CHEM 1215G and MATH 1511G or ENGR 190.
Repeatable: up to 3 credits
Crosslist: M E 234
View Course Outcomes

C E 256 Environmental Engineering and Science 3 Credits (3)
Principles in environmental engineering and science: physical chemical systems and biological processes as applied to pollution control.
Prerequisite(s): CHEM 1215G and MATH 1511G or ENGR 190
Crosslist: ENVS 2111
View Course Outcomes

C E 256 L Environmental Science Laboratory 1 Credit (1)
Laboratory experiments associated with the material presented in C E 256.
Corequisite(s): C E 256
Crosslist: ENVS 2111L
View Course Outcomes

Clothing Textiles Fashion Merchandise Design (CTFM)

CTFM 1110 Fundamentals of Fashion 3 Credits (3)
Survey of the fashion business from fiber to end product.
Learning Outcomes
1. Describe the roles and functions of industry jobs and sectors involved in the designing, production, marketing, and distribution of fashion brands within the global context.
2. Describe the business strategies of industry sectors involved in the designing, production, marketing, and distribution of fashion brands within the global context.
3. Describe the interrelationships among line planning, line development, and line presentation at manufacturing and retail levels.
4. Provide examples of the fashion industry's environmental and social impact.
5. Learn about all career tracks involved in the fashion industry and the global fashion supply chain.
6. Synthesize industry-relevant information on current issues in the fashion industry.

View Course Outcomes

CTFM 2120 Fashion Illustration 3 Credits (3)
This course explores aspects of fashion illustration, from drawing basic fashion figures to producing finished professional illustrations in color. This course provides the opportunity for students to integrate their fashion design development with computer-aided systems. The emphasis is on fashion innovation and concept design exploration enhanced by computer applications.Repeatable: up to 3 credits.
Learning Outcomes
1. To learn Adobe Illustrator and Adobe Photoshop as drawing and design tools for electronic design and rendering.
2. To understand and utilize the computer as a tool for fashion design.
3. To understand methods of design input, including scanning, digitizing and resizing.
4. To develop customer profiles
5. To Understand Concept Style.

View Course Outcomes

CTFM 2130 Concepts in Apparel Construction 3 Credits (3)
Students are introduced to professional standard sewing techniques and apparel construction. The techniques learned are applied to produce finished garments. Restricted to: FCSE, CTFM majors.
Learning Outcomes
1. Define sewing construction terminology, equipment and sewing machine parts.
2. Learn to select suitable patterns and fabrics for garments.
3. Learn to alter commercial patterns for different body types.
4. Identify fabric types, finishes, and labeling.
5. Perform standard operating procedures on sewing machines.
6. Perform clothing construction techniques for various garments.
7. Apply knowledge of industry sewing methods to recognition of garment workmanship.

View Course Outcomes

CTFM 2990 Practicum in Clothing Textiles Fashion Merchandise Design 3 Credits (3)
Applied field experience in the related areas of apparel design, fashion merchandising, and textile science. Restricted to: CTFM majors.
Repeatable: up to 3 credits
Learning Outcomes
1. Gain hands-on knowledge of the fashion industry.
2. Demonstrate the ability to analyze the practices of management, as observed in the industry.
3. Demonstrate an attitude that is appropriate for a prospective manager in the industry.
4. Demonstrate the understanding of, and the ability to use research and problem-solving methods to develop, analyze, and present a critical incident analysis.

View Course Outcomes

Communication (COMM)

COMM 1115G Introduction to Communication 3 Credits (3)
This survey course introduces the principles of communication in the areas of interpersonal, intercultural, small group, organizational, public speaking, and mass and social media. (1+2P) Repeatable: up to 3 credits.
View Course Outcomes

COMM 1130G Public Speaking 3 Credits (3)
This course introduces the theory and fundamental principles of public speaking, emphasizing audience analysis, reasoning, the use of evidence, and effective delivery. Students will study principles of communication theory and rhetoric and apply them in the analysis, preparation and presentation of speeches, including informative, persuasive, and impromptu speeches.
View Course Outcomes

COMM 2110 Communication Theory 3 Credits (3)
This course provides an exploration of major theories, concepts and methods of research in the study of human communication.
Learning Outcomes
1. Identify, explain, and illustrate key concepts and principles of the major traditions of communication theory.
2. Analyze practical problems and situations using theories.
3. Integrate research correctly and ethically from credible sources to support the primary purpose of communication.

View Course Outcomes

COMM 2111 Introduction to the Communication Major 1 Credit (1)
This is a one-credit course for new Communication Studies majors. It helps them get acquainted with the department, the department head (professor for this course, the professors, other students, and the department student organizations. It also deals with degree mapping and career mapping and any problems the students are having in their first year. Finally, the students learn about the Communication Studies discipline and various communication careers they can pursue with their degree. The class meets one day each week for one hour. Restricted to: Communication Studies majors.
Learning Outcomes
1. To give you some knowledge about your major and this department.
2. To help you learn more about the study of human communication in general and we approach it in our various courses.
3. To make you comfortable with the department, its professors and graduate students, as well as staff.
4. To assist you in finding important resources for earning your degree in Communication Studies with a high GPA.
5. To engage you and your concerns in earning your degree.
6. To advise you in ways that match your goals with the department goals.

View Course Outcomes

COMM 2996 Topics in Communication 1-3 Credits
Specific subjects and credits to be announced in the Schedule of Classes. Repeatable: for a maximum of 12 credits.
View Course Outcomes

COMM 2997 Independent Study in Communication 3 Credits (3)
Individualized, self-paced projects for students with a special interest in communication topics. Repeatable: for a maximum of 6 credits.
View Course Outcomes

Community Health/Social Services (CHSS)

CHSS 1110 Introduction to Health & Community Services 3 Credits (3)
This course offers a holistic and multidisciplinary approach towards health promotion, wellness and a healthy lifestyle. Emphasis is placed on the major problem/issues that have the greatest significance to personal and community health. Topics to be discussed include: nutrition, fitness, stress management, sexuality, drug education and others.
Learning Outcomes
1. Understand basic foundations of community health – history, framework and present progress a. Identify key historical advances, people and events in public health b. Understand Healthy People 2020 goals and objectives c. Understand the levels of prevention (primary, secondary, tertiary) of public health
2. Identify organizations that help shape community health and their role in promoting health a. Governmental b. Quasi-Governmental c. Nongovernmental d. Identify local resources/agencies focused on health and human services
3. Conduct research in public health a. Identify major sources for public health research b. Governmental websites c. Journals d. Interpret and evaluate public health resources for academic use e. Write a basic journal article critique
4. Understand the history and function of the school health program a. Identify components of a coordinated school health program b. Identify and overcome barriers common to CSHP c. Apply the CSHP to contemporary issues in child/adolescent health

View Course Outcomes

CHSS 2510 Service Learning 4 Credits (4)
Ethical and legal responsibilities of health personnel with an emphasis on research applications.
View Course Outcomes

CHSS 2511 Service Learning-Community Health Worker 1 Credit (1)
Service Learning Experience in Community Health Work: Exploration of contemporary social, civil, economic and ethical problems that require student participation in collaborative efforts within the community.
Learning Outcomes
  1. Understand the importance of service learning in community building and civic participation.
  2. Students will complete 30 hours of service learning experience with a collaborating community agency focusing on Community Health Work.
  3. Compile and submit a list of detailed daily service learning activities including contact individuals, meetings attended, presentations, specific tasks accomplished or contributions to agency or community, new skills learned, trainings, and number of hours spent on each activity.
  4. Attend CHW trainings focused on community health including (but not limited to) chronic disease, environmental and mental health.
  5. Provide an oral presentation and write a personal reflection of the service learning experience in class.

View Course Outcomes

Computer Science (C S)

C S 110 COMPUTER LITERACY 3 Credits (3)
View Course Outcomes

C S 111 Computer Science Principles 4 Credits (4)
This course provides a broad and exciting introduction to the field of computer science and the impact that computation has today on every aspect of life. It focuses on exploring computing as a creative activity and investigates the key foundations of computing: abstraction, data, algorithms, and programming. It looks into how connectivity and the Internet have revolutionized computing and demonstrates the global impact that computing has achieved, and it reveals how a new student in computer science might become part of the computing future. (3+2P)
Prerequisite(s): MATH 1215 or higher
View Course Outcomes

C S 117 Introduction to Computer Animation 3 Credits (3)
Introductory course for learning to program with computer animation as well as learning basic concepts in computer science. Students create interactive animation projects such as computer games and learn to use software packages for creating animations in small virtual worlds using 3D models. Recommended for students considering a minor/major in computer science or simply interested in beginning computer animation or programming.
View Course Outcomes

C S 151 C++ Programming 3 Credits (3)
Introduction to object-oriented programming in the C++ language. The focus will be on preparing students to use C++ in their own areas. No prior programming experience is required. (2+2P)
Prerequisite(s): MATH 1215 or higher
View Course Outcomes

C S 152 Java Programming 3 Credits (3)
Programming in the Java language. (2+2P)
Prerequisite(s): MATH 1215 or higher
Repeatable: up to 3 credits
View Course Outcomes

C S 153 Python Programming I 3 Credits (3)
This course is an introduction to programming in the Python language, covering fundamental scripts, data types and variables, functions, and simple object creation and usage. The focus will be on preparing students to use Python in their own areas. No prior programming experience is required.
Prerequisite(s): MATH 1215 or higher
View Course Outcomes

C S 154 Python Programming II 3 Credits (3)
This course covers advanced Python programming, including classes, objects, and inheritance, embedded programming in domain applications, database interaction, and advanced data and text processing. The focus will be on preparing students to use Python in their own areas.
Prerequisite(s): C S 153
View Course Outcomes

C S 158 R Programming I 3 Credits (3)
This course is an introduction to data processing in the R language, covering fundamental script configuration, data types and data collections, R control structures, and basic creation of graphs and data visualizations. This course will not focus on the statistical capabilities of R, though some basic statistical computations will be used.
Prerequisite(s): MATH 1220G
View Course Outcomes

C S 171G Introduction to Computer Science 4 Credits (4)
Computers are now used widely in all area of modern life. This course provides understanding of the theoretical and practical foundations for how computers work, and provides practical application and programming experience in using computers to solve problems efficiently and effectively. The course covers broad aspects of the hardware, software, and mathematical basis of computers. Weekly labs stress using computers to investigate and report on data-intensive scientific problems. Practical experience in major software applications includes an introduction to programming, word processing, spreadsheets, databases, presentations, and Internet applications. (3+2P)
Prerequisite(s): MATH 1130G or MATH 1215 or higher
View Course Outcomes

C S 172 Computer Science I 4 Credits (4)
Computational problem solving; problem analysis; implementation of algorithms using Java. Object-oriented concepts, arrays, searching, sorting, and recursion. (3+2P)
Prerequisite(s): (A C or better in either MATH 1250G or MATH 1430G) or (A C or better in MATH 1220G and a 1 or better in the CS Placement Test)
View Course Outcomes

C S 209 Special Topics 3 Credits (3)
Repeatable: for a maximum of 12 credits
View Course Outcomes

C S 271 Object Oriented Programming 4 Credits (4)
Introduction to problem analysis and problem solving in the object-oriented paradigm. Practical introduction to implementing solutions in the C++ language. Pointers and dynamic memory allocation. Hands-on experience with useful development tools. (3+2P)
Prerequisite(s): At least a C- in C S 172 or ENGR 140
View Course Outcomes

C S 272 Introduction to Data Structures 4 Credits (4)
Design, implementation, use of fundamental abstract data types and their algorithms: lists, stacks, queues, deques, trees; imperative and declarative programming. Internal sorting; time and space efficiency of algorithms. (3+2P)
Prerequisite(s): At least a C- in C S 172, or placement
View Course Outcomes

C S 273 Machine Programming and Organization 4 Credits (4)
Computer structure, instruction execution, addressing techniques; programming in machine and assembly languages. (3+2P)
Prerequisite(s): At least a C- in C S 172 or ENGR 140
View Course Outcomes

C S 278 Discrete Mathematics for Computer Science 4 Credits (4)
Discrete mathematics required for Computer Science, including the basics of logic, number theory, methods of proof, sequences, mathematical induction, set theory, counting, and functions. (3+2P)
Prerequisite(s): At least C- in C S 172
View Course Outcomes

Computer Technlogy (OECS)

OECS 101 Computer Basics 1 Credit (1)
Hands-on instruction to introduce computer use and commonly used software. Graded S/U.
View Course Outcomes

OECS 105 Introduction to Information Technology 3 Credits (3)
Examination of information systems and their impact on commerce, education, and personal activities. Utilization of productivity tools for communication, data analysis, information management and decision-making.
Repeatable: up to 3 credits
View Course Outcomes

OECS 110 Introduction to Power Point 1-3 Credits
An introduction to Power Point software to develop business presentations. Includes concepts of basic presentation methods and graphic design principles. Students will create and deliver presentations using text, charts, digitized images, and sound.
View Course Outcomes

OECS 125 Operating Systems 1-3 Credits
Installation, configuration and optimization of current operating systems.
View Course Outcomes

OECS 128 Operating Systems Linux/Unix 3 Credits (3)
Installation, configuration, and use of Linux/Unix operating system software and utilities including hardware management, file management, use of command line, and scripting.
Learning Outcomes
1. Introduction to Linux
2. Introduction to Installing Linux
3. Fedora and RedHat Enterprise Linux fundamentals
4. The SHELL
5. The LINUX filesystem
6. Networking and the Internet
7. The Bourne Again Shell (bash)
8. System Administration Core Concepts
9. Files, Directories, and Filesystems 1
10. Finding, Downloading, and installing the software 1
11. Printing 1
12. Building a Linux Kernel 1
13. Administration tasks 1
14. Configuring and monitoring a LAN 1
15. Programming the Bourne Again Shell (bash) 1
16. The Python Programming LanguagePoints/Grading conversion:

View Course Outcomes

OECS 145 Mobile Application Development 1-3 Credits
Introduction to elements of mobile application coding including concepts, design strategies, tools needed to create, test and deploy applications for mobile devices.
Repeatable: up to 6 credits
View Course Outcomes

OECS 155 Special Topics Introductory Computer Technology 0.5-3 Credits
Topics to be announced in the Schedule of Classes.
Repeatable: up to 8 credits
View Course Outcomes

OECS 185 PC Maintenance and Repair I 1-3 Credits
Introduction to most common types of PC configurations, installations, and failures. This course will explore troubleshooting skills for maintaining and repairing common hardware and software related problems.
Repeatable: up to 3 credits
View Course Outcomes

OECS 192 C++ Programming I 3 Credits (3)
Development of skills in programming using the C++ programming language.
View Course Outcomes

OECS 195 Java Programming I 1-3 Credits
Developing of skills in programming using the Java programming language.
View Course Outcomes

OECS 200 Accounting on Microcomputers 3 Credits (3)
Fundamental accounting principles using popular microcomputer
software to include G/L, A/R, A/P, purchase order, billing, inventory, and
forecasting modules.
Prerequisite(s): ACCT 2110 or OATS 121
Learning Outcomes
  1. Effective communication skills in reading, writing, listening, and
     speaking.
  2. Basic critical thinking skills including problem identification, evidence
     acquisition, evidence evaluation, and problem solving and analytical
     decision making.
  3. An understanding of personal and social responsibility
  4. An ability to apply the fundamental concepts of quantitative
     reasoning in mathematics and science.

View Course Outcomes

OECS 204 Linux Operating System 1-3 Credits
Install and configure the Linux operating system on X86 systems. Covers
issues involved in maintaining operating system, networking, creating
and managing users, and installing and updating software. General
procedures for working with operating system includes maintaining disk
space, preserving system security, and other related topics.
Repeatable: up to 3 credits
View Course Outcomes

OECS 207 Windows 3 Credits (3)
Covers local installation, configuration of core local services, managing
users, and the general local management and maintenance of Windows
workstations.
Prerequisite(s)/Corequisite(s): OECS 185
Repeatable: up to 6 credits
View Course Outcomes

OECS 208 Internet Applications 1-3 Credits
Survey of the Internet to include e-mail, file transfer, current search
techniques, the World Wide Web and basic Web page development.
Repeatable: up to 6 credits
View Course Outcomes

OECS 209 Computer Graphic Arts 1-3 Credits
Basic graphics composition using computer programs to include editing
and manipulating graphic images, clip-art, and printing of pictures.
Prerequisite(s): OECS 105, BCIS 1110, or OECS 10
Repeatable: for a maximum of 6 credits under different subtitles listed in
the Schedule of Classes
View Course Outcomes

OECS 211 Word Processing Applications 1-3 Credits
Basic word processing to include composing, editing, formatting, and
printing of documents. Prerequisites: BCIS 1110 or OECS 105
Repeatable: under different subtitles listed in the Schedule of Classes for
a maximum of 6 credits
View Course Outcomes

OECS 215 Spreadsheet Applications 1-3 Credits
Use of spreadsheets to include graphics and business applications.
Prerequisites: BCIS 1110 or OECS 105
Repeatable: for a maximum of 6 credits
Learning Outcomes
  1. Create and format worksheets/workbooks using features of Microsoft
     Excel including chart data, styles, and themes.
  2. Utilize formulas and functions to create worksheets suitable for
     professional and personal purposes.
  3. Utilize the advanced function of Excel to create templates, work with
     multiple worksheet, advanced sorting and filtering and data analysis.

View Course Outcomes

OECS 220 Database Application and Design 1-3 Credits
Creating, sorting, and searching of single and multifile databases to
include report generation and programming database commands.
Prerequisite(s): BCIS 1110 OR E T 120 OR OECS 105
Repeatable: for a maximum of 6 credits under different subtitles listed in
the Schedule of Classes
View Course Outcomes

OECS 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study
that provides the student an opportunity to explore career paths and
apply knowledge and theory learned in the classroom. Internships may be
paid or unpaid. Students are supervised/evaluated by both the employer
and the instructor. Consent of Instructor required. OECS majors. Graded:
S/U Grading (S/U, Audit).
Prerequisite(s): Consent of instructor
Repeatable: up to 3 credits
View Course Outcomes

OECS 222 Internship II 1-3 Credits
Continuation of OECS 221. Each credit requires specified number of hours
of on-the-job work experience. Consent of Instructor required. OECS
majors. Graded: S/U Grading (S/U, Audit).
Prerequisite(s): OECS 221 and consent of instructor
Repeatable: up to 3 credits
View Course Outcomes

OECS 223 Web Design for Business 3 Credits (3)
Design and create a website using HTML, CSS, web development tools
and industry-recognized software while applying best practices in site
management and business web presence.
View Course Outcomes

OECS 227 Computer Applications for Technicians 3 Credits (3)
Computer applications for service technicians in various disciplines.
Hardware and software applications explored. Includes operating
systems, high level programming, and networking hardware and software.
View Course Outcomes

OECS 230 Data Communications and Network I 1-3 Credits
Definition of data communication; survey of hardware applications and
teleprocessor software; examination and design of networks.
Prerequisite(s): OECS 185
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 231 Data Communications and Network II 1-3 Credits
Installation and application of popular microcomputer network software.
Prerequisite(s): OECS 230
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 234 Linux Server 3-4 Credits
This course addresses the implementation and support needs of IT professionals that are planning to deploy and support Linux Server(s). It provides in-depth, hands-on training for planning, implementation, management and support of Linux networking services.
Prerequisite(s)/Corequisite(s): OECS 204
Repeatable: up to 8 credits
View Course Outcomes

OECS 235 Structured Query Language (SQL) 1-3 Credits
Installation, configuration, administration, and troubleshooting of SQL client/server database management system.
Prerequisite(s)/Corequisite(s): OECS 220
Repeatable: up to 3 credits
View Course Outcomes

OECS 237 Windows Server 3-4 Credits
This course addresses the implementation and support needs of IT professionals that are planning to deploy and support Microsoft Windows Server Active Directory Domain Services in medium to large businesses. It provides in-depth, hands-on training for Information Technology (IT) professionals responsible for the planning, implementation, management, and support of Windows Active Directory services.
Prerequisite(s)/Corequisite(s): OECS 207
Repeatable: up to 4 credits
View Course Outcomes

OECS 245 Game Programming I 3 Credits (3)
Development of programming skills for games and animation using current programming languages and tools.
Prerequisite(s): consent of instructor
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 246 Game Programming 3 Credits (3)
Continuation of OECS 245.
Prerequisite(s): OECS 245
Repeatable: for a maximum of 6 credits
View Course Outcomes

OECS 253 Applied Data Analysis and Management 3 Credits (3)
Applied use of advanced spreadsheet tools for data analysis and database tools for data and information management. Connect emerging topics in business to tools used in analyzing data and making raw data useful for business decision making.
Prerequisite(s): BCIS 1110
View Course Outcomes

OECS 255 Special Topics 1-4 Credits
Topics to be announced in the Schedule of Classes.
View Course Outcomes

OECS 261 Introduction to Networks 3-4 Credits
Introduction to networking principles including the practical and conceptual skills for understanding basic networking, planning and designing networks, implementing IP addressing schemes, examining the OSI and TCP/IP layers, and performing basic configurations for routers and switches. Aligns to the first course of the Cisco Networking Academy CCNA curriculum.
View Course Outcomes

OECS 262 Essentials of Routing and Switching 3-4 Credits
Examination of the architecture, components, and operations of routers and switches in a small network. Student will learn how to configure, verify and troubleshoot: routers and switches, static routing, default routing, VLANs, and ACLs. Aligns to the second course of the Cisco Networking Academy CCNA curriculum.
Prerequisite(s)/Corequisite(s): OECS 261
Repeatable: up to 4 credits
View Course Outcomes

OECS 263 Network Fundamentals 3-4 Credits
Fundamentals of networking architecture, components, and operations including practical and conceptual skills using routers and switches. Student will learn how to configure, verify and troubleshoot static routing, default routing, VLANs, and ACLs. This course aligns to the third course of the Cisco Networking Academy CCNA curriculum.
Prerequisite(s)/Corequisite(s): OECS 262
Repeatable: up to 4 credits
View Course Outcomes

OECS 264 Network Routing Protocols 3-4 Credits
Fundamentals of routing protocols for troubleshooting advanced network operations. Covers common networking issues such as RIP, OSPF, and EIGRP for IPv4 and IPv6 networks. This course aligns to the fourth course of the Cisco Networking Academy CCNA curriculum.
Prerequisite(s)/Corequisite(s): OECS 263
Repeatable: up to 4 credits
View Course Outcomes

OECS 269 Network Security 3 Credits (3)
Fundamentals of design and implementation of network security solutions that will reduce the risk of system vulnerability.
Prerequisite(s): OECS 204 or OECS 207 or OECS 261 or consent of instructor
Repeatable: up to 8 credits
View Course Outcomes

OECS 275 PC Maintenance and Repair II 1-3 Credits
Continuation of OECS 185.
Prerequisite(s): OECS 185
Repeatable: up to 6 credits
View Course Outcomes

OECS 280 Desktop Publishing I 3 Credits (3)
Design and production of publication materials to fill the needs of business communities, using a microcomputer. Prerequisites: either BCIS 1110, OECS 105.
Repeatable: for a maximum of 6 credits
Crosslist: OATS 280
View Course Outcomes

OECS 290 Computer Technology Capstone 1-3 Credits
Refines skills learned in the OECS program. Culminates in a review and practice of advanced software applications. Restricted to: OECS & OECT majors.
Prerequisite(s): (OECS 125, OECS 128, OECS 207, OR OECS 203) AND (OECS 185 OR E T 283)
Repeatable: up to 3 credits
View Course Outcomes

OECS 299 Independent Study 1-3 Credits
Specific subjects to be determined based on need.
View Course Outcomes

Counseling & Educational Psychology (CEPY)

CEPY 1120G Human Growth and Behavior 3 Credits (3)
Introduction to the principles of human growth and development throughout the life span. Repeatable: up to 3 credits.
View Course Outcomes

CEPY 1150 Career Excellence 1 Credit (1)
Professional career curriculum to assist students in developing an understanding and ability to articulate who they are as emerging professionals through personal assessment activities. The focus will be on providing students with tools and strategies for reflection, planning, and goal-setting.
Learning Outcomes
  1. Demonstrate an understanding of the relationship between academic and professional career success.
  2. Express a familiarity with professionalism and career culture and communicate a comprehension of various professional career skills.
  3. Apply material learned to other aspects to professional excellence.
  4. Develop a career life plan that will highlight goals, taking into account life circumstances.
  5. Become competent in appropriate professional communication.

View Course Outcomes

CEPY 1160 Academic Excellence 1 Credit (1)
This course is designed to provide students with a foundation in their personal academic progress. The course will assist students in developing an understanding and ability to articulate who they are as beginning college students through personal assessment activities. the focus will be on providing students with tools and strategies for reflection, planning, and goal-setting. Topics discussed will include time management, study skills, test taking skills, stress management, motivational and academic discipline skills, interpersonal skills and college survival skills. We intend for this to be a supportive, respectful and collaborative environment where everyone can learn and grow.
Learning Outcomes
  1. Students will be able to demonstrate an understanding of the relationship between time management and academic success.
  2. Students will be able to express a familiarity with college culture.
  3. Students will be able to communicate a comprehension of study skills and test taking strategies.
  4. Students will be able to apply material learned to other aspects to enhance academic excellence.
  5. Students will be able to develop an academic life plan that will highlight goals, taking into account life circumstances.
  6. Become competent in appropriate academic communication.

View Course Outcomes

CEPY 2110 Learning in the Classroom 3 Credits (3)
This class introduces you to the basic principles of learning, including cognition, motivation, and assessment. You will examine the relationships between theory, research, and practice in learning, memory, child development, motivation, and educational assessment for the school setting. This course will provide the student with concepts and principles of educational psychology that will form a framework for thinking about learning and instruction and how theories of learning are connected to classroom situations.
Learning Outcomes
  1. Define learning and compare and contrast the factors that cognitive, behavioral, and humanistic theories believed to influence the learning process, giving specific examples of how these principles could be used in the classroom.
  2. Observe and reflect upon the teaching learning processes in economically, socially, culturally and educationally diverse classroom populations in order to develop a current understanding of students and families in public and private school.
  3. Discuss how theories of information processing and cognitive theories of learning can impact memory, study strategies, and how certain teaching techniques can help students learn.
  4. Compare teacher-centered and student-centered approaches to learning, and to identify a positive learning environment.
  5. Identify various methods to motivate students and create effective learning environments.
  6. Use major concepts of child and adolescent development, human learning, and social and cultural influences in planning and implementing classroom instruction, strategies, and management.
  7. Evaluate the best means of accommodating instruction to meet individual needs and differences.
  8. Students will examine how learning style, cultural and social issues and learning disabilities impact the learner's effectiveness in the classroom setting.
  9. Explain different types of assessment used to assess learning and provide examples of effective assessment practices. 1
  10. Discuss the relationship between motivation and classroom management.

View Course Outcomes

CEPY 2120 The Preschool Child 3 Credits (3)
Survey of phycological development from conception to age five.
Learning Outcomes
  1. Demonstrate an understanding of major theories of early childhood development
  2. Demonstrate an understanding of recognized stages of human development from prenatal to preschool years
  3. Explore cultural influences that may create variability in human development
  4. Apply major theories to themselves and reflect on their early childhood development

View Course Outcomes

CEPY 2130 Adolescence - School Setting 3 Credits (3)
This course is designed to present the student with an introduction to the area of adolescent development with an emphasis on the positive aspects of this life stage. Students will be encouraged to be reflective on the topics presented in class that will include issues on diversity, culture, health, and well-being, emerging adulthood and suggestions for improving the lives of adolescents.
Learning Outcomes
1. Students will become knowledgeable about the historical background of adolescent development.
2. Students will become knowledgeable about the major theories related to adolescence.
3. Students will evaluate different developmental theories and their fit across cultures as you reflect on your personal experiences through discussions and videos you will watch.
4. Students will identify key developmental milestones, conflicts, and concepts of each chapter presented by utilizing critical thinking skills as you complete summary questions.
5. Students will define relevant terms, ideas, and concepts in the study of adolescent development through quizzes and homework assignments.

View Course Outcomes

CEPY 2140 Explorations of Counseling & Community Psychology 3 Credits (3)
An introduction and exploration of various career options and functions within the mental health disciplines to aid in professional development. Emphasis will be placed on depth and scope of the choices available including research, teaching, community work, public policy, and clinical work and prevention (e.g. counseling, psychotherapy, assessment, consultation). Repeatable: up to 6 credits.
Learning Outcomes
1. Acquire knowledge of historical and contemporary issues which affect the provision of mental health services by members of diverse mental health disciplines including clinical, counseling, school, and community psychologists, clinical mental health counselors, and others.
2. Acquire knowledge pertaining to education and training requirements for various disciplines.
3. Acquire survey-level knowledge of psychological assessment, measurement, and treatment.
4. Acquire survey-level knowledge of various inquiry approaches applicable to research pertaining to mental health and well-being—both at the individual and community level.
5. Understand the mental health recovery model and explore the lived experiences of individuals with mental health problems in contemporary society.
6. Understand the principles of sensitivity and respect for diverse populations as integral to professional practice in diverse mental health disciplines and settings, including practice in educational and community settings.

View Course Outcomes

CEPY 2140H Exploration of CCP 3 Credits (3)
Honors version of CEPY 2140. An exploration of careers, activities, & techniques in counseling, school, and community psychology. Taught with 298 with differentiated instruction and/or independent project to be determined.
Learning Outcomes
1. Demonstrating knowledge of the basic functions of careers in counseling, community and school psychology.
2. Establishing a familiarity with the educational requirements necessary for a career in counseling, community, and school psychology.
3. Acknowledging and enhancing sensitivity and respect for diverse populations in various counseling areas; including educational and community settings.
4. Beginning to develop the interpersonal skills needed to succeed in the counseling, community and school psychology professions.

View Course Outcomes

Criminal Justice (CJUS)

CJUS 1110G Introduction to Criminal Justice 3 Credits (3)
This course provides an overall exploration of the historical development and structure of the United States criminal justice system, with emphasis on how the varied components of the justice system intertwine to protect and preserve individual rights. The course covers critical analysis of criminal justice processes and the ethical, legal, and political factors affecting the exercise of discretion by criminal justice professionals.
View Course Outcomes

CJUS 1120 Criminal Law 3 Credits (3)
This course covers basic principles of substantive criminal law including elements of crimes against persons, property, public order, public morality, defenses to crimes, and parties to crime.
Learning Outcomes
1. Explain the concepts of substantive criminal liability in the United States, including actus reas, mens rea, causation, concurrence, and parties to crime.
2. Define the differences between criminal law and civil law in the United States.
3. Demonstrate basic knowledge of legal terminology as it relates to criminal law.
4. Identify the elements of crimes against persons, property, public order and the administration of justice, public morality, and the inchoate crimes.
5. Describe the various defenses to crimes.

View Course Outcomes

CJUS 1996 Topics in Criminal Justice 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
Repeatable: under different topics for a maximum of 6 credits.
View Course Outcomes

CJUS 2120 Criminal Courts and Procedure 3 Credits (3)
This course covers the structures and functions of American trial and appellate courts, including the roles of attorneys, judges, and other court personnel, the formal and informal process of applying constitutional law, rules of evidence, case law and an understanding of the logic used by the courts.
Learning Outcomes
1. Explain the application of the Constitutional Amendments that apply to criminal justice.
2. Explain and describe the dual court system in the U.S. and how courts enforce the rule of law.
3. Identify and list the duties and requirements of the courtroom workgroup.
4. Describe courtroom procedures, rules of the court, and due process of law.
5. Articulate basic knowledge of the U.S. criminal court system.
6. Define legal terms.
7. Explain the use of discretion in criminal procedure.
8. Differentiate the role of courts of limited jurisdiction, courts of general jurisdiction, and the appellate courts in the processing of criminal cases.

View Course Outcomes

CJUS 2140 Criminal Investigations 3 Credits (3)
This course introduces criminal investigations within the various local, state, and federal law enforcement agencies. Emphasis is given to the theory, techniques, aids, technology, collection, and preservation procedures, which ensure the evidentiary integrity. Courtroom evidentiary procedures and techniques will be introduced.
Learning Outcomes
1. Identify developments in investigation technology.
2. Identify common types of criminal investigations and their key components.
3. Apply proper crime scene investigative protocols.
4. Explain proper evidentiary gathering and handing procedures, and utilize various interviewing techniques.
5. Identify and compare different law enforcement agencies and the role they play in criminal investigations.
6. Describe proper collection, evidence preservation, documentation, and court presentation.
7. Develop effective search authorization.

View Course Outcomes

CJUS 2150 Corrections System 3 Credits (3)
This course introduces the corrections system in the United States, including the processing of an offender in the system and the responsibilities and duties of correctional professionals. The course covers the historical development, theory, and practice, as well as the institutional and community-based alternatives available in the corrections process.
Learning Outcomes
1. Describe the purposes of the corrections system and the issues facing the corrections system.
2. Explain the components of the corrections system and describe their functions.
3. Compare and contrast the different forms of correction practices.
4. Explain the goals of corrections, the different factors affecting the sentencing process, the legal rights of prisoners, and the issues concerning prison violence.
5. Explain the impact of reentry into society.
6. Identify the issues concerning capital punishment.
7. Describe the effectiveness of various correction programs on offenders.

View Course Outcomes

CJUS 2160 Field Experience in Criminal Justice 6 Credits (6)
This course is designed to provide actual experience working for a criminal justice agency and the opportunity to apply criminal justice concepts and theory to a field situation. Students already working in an agency will complete an approved learning project while on the job. Prerequisites: CJUS 1110G, prior arrangement and a GPA of 2.0 or better in major.
Learning Outcomes
1. Obtain practical experience by observing, researching, and working in a criminal justice agency.
2. Apply the knowledge of principles, theories, and methods that were learned in the classroom to situation in which field experience will be devoted.
3. Instill an understanding for general and specific problems that criminal justice agencies encounter on a daily basis.
4. Develop a professional work ethic and attitudes, including reliability, professional responsibility, and the ability to work cooperatively with others.

View Course Outcomes

CJUS 2220 The American Law Enforcement System 3 Credits (3)
This course covers the historical and philosophical foundations of law and order, with an in-depth examination of the various local, state, ad federal law enforcement agencies and how they interact within the criminal justice system.
Learning Outcomes
1. Discuss, evaluate, and analyze the role of police in the democratic society today, and the historical development of modern day law enforcement
2. Define and explain the different types of community policing and the valid reasons behind their application within a community
3. List and discuss the ways to overcome the barriers to change within a police organization, good recruitment, screening, and retention of employees
4. Analyze and discuss the history of and the different types of police patrol, as well as the use of force and deadly force, and methods used for controlling police behavior
5. Describe and discuss the different types of police behavior, potential oversight, and remedy and their limitations
6. List and discuss the benefits of higher and continued education, along with the minimum educational requirements for police officers
7. Evaluate and discuss the reasons for police stress and the methods of dealing with stressors
8. Interpret current court cases, both state and federal, that affect police procedures

View Course Outcomes

Culinary Arts (CHEF)

CHEF 101 Culinary Arts Kitchen Orientation 3 Credits (3)
Provides students with basic information and skills necessary for success in the Culinary Arts program. Students learn basic kitchen routines, safety and sanitation, professional conduct and deportment, standard kitchen calculations, knife handling, and are introduced to the laboratories for initial cooking experiences. (2P)
View Course Outcomes

CHEF 125 Introductory Cake Decorating 1 Credit (1)
Introduction to the professional cake decorating techniques used by pastry chefs. Basic skills of piping a variety of icings into different patterns are taught. (2P)
View Course Outcomes

CHEF 126 Intermediate Cake Decorating 1 Credit (1)
Introduction to more advanced professional cake decorating techniques used by pastry chefs. Fondant work and more complex decorating schemes are taught. (2P)
Prerequisite(s): CHEF 125
View Course Outcomes

CHEF 127 Chocolate Work 1 Credit (1)
Introduction to working with chocolate utilizing a variety of methods. Tempering, forming, molding, and other professional techniques will be taught. (2P)
View Course Outcomes

CHEF 128 Advanced Chocolate Work 1 Credit (1)
More advanced treatments of chocolate are explored and professional techniques for the chocolatier are developed. (2P)
Prerequisite(s): CHEF 127
View Course Outcomes

CHEF 129 Wedding Cake Design and Construction 1 Credit (1)
Basic skills in designing wedding (or other specialty event) cakes. Includes shaping, icing selection, decorating scheme, presentation, transportation, and remote set up. (2P)
Prerequisite(s): CHEF 125 and CHEF 126
View Course Outcomes

CHEF 155 Special Topics 3 Credits (3)
Specific subjects to be announced in the Schedule of Classes.
Repeatable: up to 6 credits
View Course Outcomes

CHEF 165 Math for Kitchen Operations 3 Credits (3)
Fundamental mathematical concepts and computations, including measurement, recipe scaling and conversions, metric unit conversion, ingredient yield calculations, ratios and cost extensions are covered. Examples of basic mathematical calculations use kitchen and food service functions, as well as situations to demonstrate principles.
View Course Outcomes

CHEF 211 Food Production Management I 3 Credits (3)
Introduction to kitchen design, workflow, and commercial equipment. Techniques, methods, and application of basic food production principles. Practical experience in cooking processes from a managerial viewpoint. (2+2P)
Crosslist: HOST 211
View Course Outcomes

CHEF 212 Food Production Management II 3 Credits (3)
Selection and use of ingredients. Demonstration and application of classical and modern cooking and preparation techniques. Management techniques for kitchen personnel. Recipe design and analysis. (2+2P)
Prerequisite(s): CHEF 211
View Course Outcomes

CHEF 213 Bakery Management 3 Credits (3)
Fundamentals of baking from a supervisory/management perspective. Exposure to commercial equipment and processes. Introduction to commercial alternatives to scratch-preparation methods. (2+2P)
View Course Outcomes

CHEF 214 Bakery Management II 3 Credits (3)
Advanced techniques and management of bakery operations are explored. Students learn classical forms and techniques. Modern methods of preparing traditional pastry and baked goods are introduced. (2+2P)
Prerequisite(s): CHEF 213
View Course Outcomes

CHEF 233 Culinary Arts Fundamentals I 4 Credits (4)
Introduction to the basics of culinary arts, including ingredients recognition, cooking methods and techniques, knife usage, preparation of basic stocks, mother sauces, starches and vegetables. Students will participate in laboratory work designed to create an understanding of the professional role of the culinarian. Preparation and production of food products integral to service to guests is incorporated in the course. CHEF, HOST, majors. (1+9P)
Repeatable: up to 4 credits
View Course Outcomes

CHEF 234 Culinary Arts Fundamentals II 4 Credits (4)
Continuation of introductory course focusing on meat cookery, daughter sauces, cold food preparation, poultry and seafood. Safe use of equipment is emphasized while experiencing differing methods of preparation and cooking. Preparation and production of food products integral to service of guests is incorporated in this course. HOST, CHEF majors. (1+9P)
Prerequisite(s): CHEF 233 with a grade of C- or better
Repeatable: up to 4 credits
View Course Outcomes

CHEF 235 Advanced Culinary Arts I 4 Credits (4)
Exploration and experience in preparation techniques beyond the basic level. Nutritional components of food are discussed, as in the application of good nutrition practices in recipe design. Students are encouraged to use creative methods to expand the individual's culinary expressions. Prepares food products for service to guests in both bulk feeding and individual service settings. Plans, prepares, serves and critiques meals provided for students, faculty and staff. CHEF majors. (1+9P)
Prerequisite(s)/Corequisite(s): CHEF 234 with a grade of C or better if course has been previously taken
Repeatable: up to 4 credits
View Course Outcomes

CHEF 236 Advanced Culinary Arts II 4 Credits (4)
Advanced techniques and experimental use of food combinations to enhance the student's repertoire of skills and abilities. Utilizes knowledge to develop recipes for unique products. Plans, prepares, serves and critiques meals provided for students, faculty and staff. CHEF majors. (1+9P)
Prerequisite(s): CHEF 235 with a grade of C or better
View Course Outcomes

CHEF 237 Banquet/Catering Production 3 Credits (3)
Planning and implementation of the culinary aspects of catered functions. Development of time schedules, work assignments and service plans for catered events and banquet functions. Production of food items in appropriate quantities for catered events. Costing and control functions are covered. CHEF, HOST majors. (1+6P)
Prerequisite(s): Grade of C or above in CHEF 233
Repeatable: up to 6 credits
View Course Outcomes

CHEF 240 Baking Fundamentals I 4 Credits (4)
Introduction to baking techniques, measurement and use of ingredients; equipment use and chemical reactions inherent in the baking process. Production of simple desserts and baked goods. Introduction to working with bread doughs. HOST, CHEF majors.
Corequisite(s): CHEF 233
View Course Outcomes

CHEF 241 Baking Fundamentals II 4 Credits (4)
More advanced baking and bread making techniques are covered in this course with emphasis on the more advanced elements of quantity production. Students work with a variety of products and ingredients. HOST, CHEF majors. (1+9P)
Prerequisite(s): grade of C or above in CHEF 240
View Course Outcomes

CHEF 242 Intermediate Baking I 4 Credits (4)
More advanced baking and pastry techniques are covered in this course with emphasis on the basic elements of patisserie production. Focus is on preparing students to work in a pastry kitchen. HOST, CHEF majors. (1+9P)
Prerequisite(s): Grade of C or above in CHEF 241
View Course Outcomes

CHEF 243 Intermediate Baking II 4 Credits (4)
Continuation of work with basic elements of patisserie products including laminated doughs and filled products. Students prepare creams, custards, fillings and are introduced to cake assembly procedures. (1+9P)
Prerequisite(s): Grade of C or above in CHEF 242
View Course Outcomes

CHEF 255 Special Topics 3 Credits (3)
Specific subjects to be announced in the Schedule of Classes. HOST majors.
Repeatable: up to 6 credits
View Course Outcomes

CHEF 256 International Cuisine 3 Credits (3)
Exploration into a variety of international cuisines is undertaken, including the cultural and historical backgrounds of the foods being prepared. Students work on developing themed menus and production plans for meals utilizing a single international cuisine. CHEF, HOST majors. (1+6P)
Prerequisite(s): Grade of C or above in CHEF 233
Repeatable: up to 6 credits
View Course Outcomes

CHEF 257 Garde Manger 3 Credits (3)
Traditional garde manger skills are taught, including plated salads, cold foods, entremets, pates, forcemeat, terrines, charcuterie and chaud froid work. The art and craft of food design, preparation and service are emphasized. CHEF, HOST majors. (1+6P)
Prerequisite(s): Grade of C or above in CHEF 233
Repeatable: up to 3 credits
View Course Outcomes

CHEF 260 Nutrition for Chefs 3 Credits (3)
Aspects of basic human nutritional requirements are covered as are the applications of the standards to the cooking and baking. Meeting the USDA nutrient guidelines while preparing good tasting food is discussed, calorie, fat and sodium reduction techniques are explored.
View Course Outcomes

Cybersecurity (CSEC)

CSEC 110 Principles of Cybersecurity 3 Credits (3)
Course covers contemporary trends in cybersecurity including understanding characteristics of security vulnerabilities as they relate to hardware, software, data, procedures, and user actions.
View Course Outcomes

CSEC 275 Introductory to Cryptography 3 Credits (3)
Introduction to the foundation of cryptography, principles behind cryptographic design, and cryptographic applications. Topics include encryption techniques, common cryptographic protocols and security functions.
Prerequisite(s)/Corequisite(s): MATH 1215 or above
View Course Outcomes

CSEC 280 Introduction to Cyber Defense 3 Credits (3)
Introduction to the foundation of cryptography, principles behind cryptographic design, and cryptographic applications. Topics include encryption techniques, common cryptographic protocols and security functions.
Prerequisite(s)/Corequisite(s): MATH 1215
View Course Outcomes

CSEC 283 Ethical Hacking and Penetration Testing 3 Credits (3)
Introduces students to the tools and software used in ethical hacking and penetration testing as well as introducing them to some of the vulnerabilities and exploits that exist within the cybersecurity field.
Prerequisite(s): E T 153 and E T 156
Prerequisite(s)/Corequisite(s): E T 283
View Course Outcomes

CSEC 285 Introduction to Managing Information Security 3 Credits (3)
Managerial aspects of information security and assurance including access control models, information security governance, accountability metrics, legal responsibilities, and information security program assessment.
Prerequisite(s)/Corequisite(s): OECS 269
View Course Outcomes

CSEC 286 Information Security Certification Preparation 4 Credits (4)
Covers the examination objectives and detailed preparation to prepare students to take the CompTia Security+ exam.
Prerequisite(s): E T 153, E T 156, and E T 283
View Course Outcomes

Dance (DANC)

DANC 1110G Dance Appreciation 3 Credits (3)
This course introduces the student to the diverse elements that make up the world of dance, including a broad historic overview, roles of the dancer, choreographer and audience, and the evolution of the major genres. Student will learn the fundamentals of dance technique, dance history, and a variety of dance aesthetics.
View Course Outcomes

DANC 1130 Ballet I 1 Credit (1)
This course is the beginning level of ballet technique. Students learn the basic fundamentals and performance skills of ballet technique, which may include flexibility, strength, body alignment, coordination, range of motion, vocabulary, and musicality.
Learning Outcomes
1. Apply fundamental movements of ballet techniques.
2. Enhance flexibility, strength, body alignment, coordination, balance, kinesthetic awareness, range of motion, and musicality.
3. Employ basic theories of classical ballet placement and proper alignment.
4. Develop basic ballet terminology, variations in timing and changes of facing, and barre and center combinations.

View Course Outcomes

DANC 1131 Introduction to Ballroom Dance 1 Credit (1)
An introduction to ballroom dance at the beginning level. Students will learn the fundamentals of technique including carriage, common movement vocabulary, and partnering, and will be introduced to steps and dances from the Bronze Syllabus of American Smooth and International Standard dances.
Learning Outcomes
1. Execute the basic figures of various Ballroom dances in American and International styles
2. Demonstrate an understanding of the elements of technique of these forms, including posture, use of the hips and legs, and lead and follow
3. Develop the skills of style and performance quality within the dance
4. Demonstrate improved overall physical capability, musicality, and movement memory
5. Appreciate Ballroom dancing as an artform and a discipline

View Course Outcomes

DANC 1135 Argentine Tango I 1 Credit (1)
Repeatable: once for a maximum of 2 credits. Offered Spring of even years.
Learning Outcomes
1. Execute the basic figures of Tango and Argentine Tango
2. Demonstrate an understanding of the elements of technique of these forms, including posture, use of the hips and legs, and lead and follow
3. Develop the skills of style and performance quality within the dance
4. Articulate the cultural and historical underpinnings of these forms as World dances
5. Demonstrate improved overall physical capability, musicality, and movement memory
6. Appreciate Tango as an artform and a discipline

View Course Outcomes

DANC 1140 Flamenco I 1 Credit (1)
This course introduces the student to the art of flamenco and its cultural features and significance. Students will learn the fundamentals of this art form and introductory techniques and skills, which may include handwork, footwork, postures, and specific dances.
Learning Outcomes
1. Demonstrate a basic level of competency in the principles of alignment, anatomy, coordination, mobility, stability, and stamina.
2. Demonstrate fundamental flamenco techniques relative to spatial awareness, rhythm, phrasing, and sequencing.
3. Demonstrate competency with basic flamenco movement vocabulary.
4. Perform a variety of flamenco dances, poses, steps, hand movements, and combinations.

View Course Outcomes

DANC 1150 Modern Dance I 1 Credit (1)
Modern Dance techniques and styles. Students are introduced to proper warm-up techniques, body alignment, control and flexibility. Students work with various rhythms and combinations of movements. The course emphasizes dance technique and creative experience. The history, terminology and philosophy of Modern Dance are also discussed.
Learning Outcomes
1. Use a more developed sense of muscle control and strength, stretch and balance, coordination.
2. Demonstrate and verbalize an increased awareness of Modern Dance techniques
3. Execute dance phrases, combining several movements and in more than one rhythm.
4. Demonstrate an increased awareness of musicality while dancing and use Modern Dance Techniques creatively.

View Course Outcomes

DANC 1155 Introduction to Hip-Hop Dance 1 Credit (1)
This course provides an atmosphere of safety and encouragement in which students can express creativity and individuality through hip-hop dance. No previous dance experience required.
Repeatable: up to 4 credits
View Course Outcomes

DANC 1185 Introduction to Country Western Dance 1 Credit (1)
An introduction to Country Western Dance at the beginning level. Students will learn the fundamentals of techniques and several dances, including Country Western Two-Step, Nightclub Two-Step, Polka, and Line Dance.
Learning Outcomes
1. Execute the basic figures of various Country Western social dances
2. Demonstrate an understanding of the elements of technique of these forms, including posture, use of the hips and legs, and lead and follow
3. Develop the skills of style and performance quality within the dance
4. Demonstrate improved overall physical capability, musicality, and movement memory
5. Appreciate Country Western dancing as an artform and a discipline

View Course Outcomes

DANC 1220 Introduction to Latin Social Dance 1 Credit (1)
An introduction to Latin social dance at the beginning level. Students will learn the fundamentals of technique including carriage, common movement vocabulary, and partnering, and will be introduced to steps and dances from the Bronze Syllabus of American Rhythm and International Latin dances.
View Course Outcomes

DANC 1235 Introduction to West Coast Swing Dance 1 Credit (1)
An introduction to West Coast Swing dancing at the beginning level. Students will learn the fundamentals of technique of several Swing forms and the Hustle, including basic steps, partnering, and musical forms.
View Course Outcomes

DANC 1460 Dance for Musical Theater I 1 Credit (1)
This course provides students with an understanding of the Tap and Jazz Dance technique for use in Musical Theater and other performance genres at the beginning level. This course is designed for students to gain knowledge and understanding of Tap and Jazz Dance as art forms.
Repeatable: up to 2 credits
View Course Outcomes

DANC 2114 Dance Sport I 1 Credit (1)
Performance-based, team formation dance in a variety of Latin and ballroom dances.
Repeatable: up to 4 credits
View Course Outcomes

DANC 2130 Ballet II 2 Credits (2)
Intermediate level of ballet technique; Introduction of more advanced Ballet vocabulary at barre/center work; increase flexibility, strength, body alignment, and coordination for practice of steps/combinations with variations in timing and changes of facing.
Learning Outcomes
1. A successful student will be able to understand and execute with accuracy all the steps presented on the take home quizzes and are encouraged and expected to attend at least two semesters of each level in order to advance to the next level of ballet technique.

View Course Outcomes

DANC 2130L Ballet Technique II Lab 1 Credit (1)
This course is designed for the acquisition of intermediate level ballet technique and skill development.
Repeatable: up to 2 credits
View Course Outcomes

DANC 2140 Flamenco II 2 Credits (2)
The structure of flamenco through choreographies that represent the basic flamenco dance forms: Fandangos de Huelva, Alegrias, Solea "por" Bulerias, and Tientos/Tangos. The course will also cover intermediate flamenco technique including footwork, palmas as (hand claps), braceo (movement of the arms), and floreo (movement of the hands).
Prerequisite(s): DANC 1140
Repeatable: up to 8 credits
View Course Outcomes

DANC 2140L Flamenco Dance II Lab 1 Credit (1)
This course is designed for the acquisition of intermediate level Flamenco dance technique and skill development.
Prerequisite(s): DANC 1140
Repeatable: up to 2 credits
View Course Outcomes

DANC 2142 Classical Spanish II 2 Credits (2)
The study of theory, techniques, and practice of Classical Spanish at the intermediate level. Includes historical and cultural contexts of this art form. (1+3P)
Prerequisite(s): DANC 1140
Repeatable: up to 8 credits
View Course Outcomes

DANC 2142L Spanish Dance II Lab 1 Credit (1)
This course is designed for the acquisition of intermediate level Spanish dance technique and skill development. (1P)
Repeatable: up to 2 credits
View Course Outcomes

DANC 2150 Modern Dance II 2 Credits (2)
Modern II is designed to further the student's abilities in modern dance technique, to enhance efficient use of weight and momentum, to release held patterns in the body's mechanics, to enrich spatial awareness, and to begin work on performance techniques.
Learning Outcomes
1. Improve accuracy in alignment and shape
2. Improve precision in space, in timing and rhythm, and in focus/intent
3. Learn combinations and movement dynamics quickly
4. Begin to integrate performance techniques while working in the classroom setting
5. Use a concentrated attitude and an open, creative mind to approach the work in an artistic manner unique to your abilities
6. Listen, see and apply all the information given within one class period and over the semester
7. Self-awareness and mindfulness: how much space do you take in the class and why? How aware are you of those around you, and those you are dancing with?
8. Release of weight to create controlled momentum
9. Locating center and moving from there

View Course Outcomes

DANC 2150L Modern Dance Technique II Lab 1 Credit (1)
This course is designed for the acquisition of intermediate level modern dance technique and skill development. (1P)
Repeatable: up to 2 credits
View Course Outcomes

DANC 2155 Hip Hop Dance Ensemble I 1 Credit (1)
Performance-based instruction for students pursuing a career in hip hop dance. Instruction includes dance repertory and choreography for stage, commercial/industry, and competitive dance areas.
Repeatable: up to 4 credits
View Course Outcomes

DANC 2157 Hip-Hop Dance 2 Credits (2)
An introduction to hip hop dance and its relationship to other aspects of hip-hop culture, music, and media, with an emphasis on creativity, individuality, and expression. Coursework may include street styles, breaking, and various regional forms.
Learning Outcomes
1. Recognize and articulate the fundamentals of various styles of hip hop dance technique and vocabulary
2. Contextualize the history and cultural aspects of hip hop
3. Examine the relationship between dance and other aspects of hip hop culture such as music and media representation
4. Demonstrate improvement in overall physical capability, musicality, and movement memory
5. Appreciate hip hop dance as an artform and a discipline

View Course Outcomes

DANC 2250 Contemporary Dance Ensemble I 1 Credit (1)
Performance-based instruction for students pursuing a career in contemporary dance. Instruction includes contemporary dance repertory and choreography for stage, outdoor arenas, and site-specific areas.
Repeatable: up to 4 credits
View Course Outcomes

DANC 2251 Spanish Dance Ensembles I 1 Credit (1)
Performance-based instruction for students pursuing a career in dance with an emphasis in Spanish Dance. Instruction includes dance repertory and choreography for stage, outdoor arenas, and site-specific areas.
Repeatable: up to 4 credits
View Course Outcomes

DANC 2265 Principles of Choreography I 3 Credits (3)
Solo dance choreography technique. The course must be passed with a grade of C- or higher. Offered only in Fall semester during even years.
View Course Outcomes

DANC 2270 Dance Improvisation I 2 Credits (2)
An introduction to the practice of dance improvisation focusing on play and discovery as methods for generating movement and exploring the full potential of the communicative, authentic body in motion. Course content includes concepts in Body, Effort, Shape, Space, Kinesthetic Response, Scoring, and Contact.
Learning Outcomes
1. Understand the core concepts of exploration and authenticity and the importance of these ideas to a modern dancer and choreographer
2. Demonstrate immediacy of presence, both physically and mentally, in the way that they responding to both choices and instincts in the moment
3. Connect the concepts learned in Modern dance technique to the study of dance improvisation and the concepts of this class to outside work as dancers, students and citizens
4. Access the constantly expanding movement vocabulary which will inform their work moving forward in dance technique and composition
5. An understanding of temporal, spatial, effort and motion awareness
6. Improvise confidently both individually and as part of a group

View Course Outcomes

DANC 2310 Bronze American Rhythm 2 Credits (2)
Bronze level American Rhythm patterns, techniques, and partnering with emphasis on elements of dance.
View Course Outcomes

DANC 2311 Bronze American Smooth 2 Credits (2)
Bronze level American Smooth patterns, technique, and partnering with an emphasis on the elements of dance.
View Course Outcomes

DANC 2320 Bronze International Latin 2 Credits (2)
This is the style of Latin dance that is danced around the globe and is featured in the World DanceSport Championships. Students will learn the Bronze Level figures and techniques in four (4) International Style dances: Rumba, Cha, Samba & Jive.
View Course Outcomes

DANC 2321 Bronze International Standard 2 Credits (2)
This is the style of Ballroom dance that is performed around the globe and is featured in the World DanceSport Championships. Learn the Bronze Level figures and techniques in five (5) International Style dances: Waltz, Tango, Viennese Waltz, Foxtrot & Quickstep. Students will focus on understanding technical elements of dance, memorizing and performing routines.
View Course Outcomes

DANC 2460 Dance for Musical Theatre 2 Credits (2)
This course will supplement the dance technique curriculum specifically in support of the study of Musical Theatre. Students will practice various social, world, and theatrical dance forms, learn selections from iconic choreography, experience mock dance auditions, and explore the skill of dance composition for musical theatre repertory.
Learning Outcomes
1. Participate successfully in dance techniques and styles outside of the basic tap, jazz, ballet, and modern dance curriculum
2. Recognize and contextualize musical theatre history and repertory through exposure to significant historical choreography and choreographers
3. Understand and excel at the skill of taking part in a musical theatre dance audition
4. Demonstrate improvement in overall physical capability, musicality, and movement memory
5. Appreciate the practice of musical theatre dance as an artform and a discipline

View Course Outcomes

Developmental English (CCDE)

CCDE 105 N Effective Communication Skills 4 Credits (4)
Instruction and practice in basic communication, to include written and oral presentations. Develops thinking, writing, speaking, reading, and listening skills necessary for successful entry to college and university classes. Provides laboratory. RR applicable. (3+2P)
Provides Lab
View Course Outcomes

CCDE 110 N General Composition 4 Credits (4)
Instruction and practice in preparation for college-level writing. Students will develop and write short essays. Provides laboratory. Traditional Grading with RR. (3+2P)
Provides Lab
Learning Outcomes
1. Avoid the most common and problematic editing errors, including spelling errors, use of inappropriate verb form, and major sentence errors;
2. Demonstrate the ability to successfully plan an essay with a detailed outline that includes a limited thesis statement and planning for sufficient content for well- developed body paragraphs;
3. Identify at least two types of plagiarism and the most common strategies for avoiding them.

View Course Outcomes

Developmental Mathematics (CCDM)

CCDM 100 N Mathematics Preparation for College Success 4 Credits (4)
Mathematics skills course designed for college students with math skills insufficient for success in CCDM 103N. RR applicable.
Repeatable: for a maximum of 4 credits
View Course Outcomes

CCDM 103 N Pre-Algebra 4 Credits (4)
Fundamental mathematics operations and arithmetic computations. Introduction to algebra and applied geometry. Provides laboratory and individualized instruction. RR applicable. (3+2P)
Provides Lab
View Course Outcomes

CCDM 105 N Mathematics Preparation and Pre-Algebra 5 Credits (5)
A total immersion course that combines CCDM 100N and CCDM 103N using tutorials, manipulatives, and classroom instruction. Completion of this class is equivalent to the completion of CCDM 100N and CCDM 103N. (4+2P)
Learning Outcomes
1. Solve linear equations in one variable using the addition and multiplication properties.
2. Add, subtract, multiply and divide integers.
3. Solve problems involving ratios and proportions.

View Course Outcomes

CCDM 112 N Developmental Algebra I 4 Credits (4)
Fundamental algebra operations, algebraic expressions, solving linear equations, systems of equations and applications of linear equations. Introduction to exponents and polynomials. Provides laboratory instruction. Completion of CCDM 112N and CCDM 113N is equivalent to completion of CCDM 114N. Graded: Traditional with RR. (3+2P)
Prerequisite(s): Grade of C or better in CCDM 103N or CCDM 105N or adequate placement score
Provides Lab
View Course Outcomes

CCDM 113 N Developmental Algebra II 4 Credits (4)
Fundamental algebra operations, polynomials, factoring, solving quadratics by factoring, rational expressions, exponents and radical expressions (continuation of CCDM 112N). Provides laboratory instruction. Completion of CCDM 112N and CCDM 113N is equivalent to completion of CCDM 114N. Graded: Traditional with RR. (3+2P).
Prerequisite(s): Grade of C or better in CCDM 112N
Provides Lab
View Course Outcomes

CCDM 114 N Algebra Skills 4 Credits (4)
Fundamental algebra operations: algebraic expressions, solving linear and quadratic equations, factoring, radicals, exponents. Provides laboratory and individualized instruction. Completion of CCDM 114N meets basic skills requirement. Graded: Traditional with RR. (3+2P)
Prerequisite(s): C or better in CCDM 103N or CCDM 105N or adequate placement score
Provides Lab
View Course Outcomes

Developmental Reading (CCDR)

CCDR 103 N Comprehensive Reading Development 4 Credits (4)
Provides integration of basic reading skills, including vocabulary development, text comprehension, and critical reading skills. Course earns institutional credit but will not count towards degree requirements. Traditional Grading with RR.
Prerequisite(s): Appropriate placement score
Repeatable: up to 4 credits
View Course Outcomes

CCDR 105 N Fundamentals of Academic Reading 3 Credits (3)
Fundamentals of academic reading skills. Emphasis on vocabulary development and text comprehension through literature based instruction. Course earns institutional credit but will not count towards degree requirements. My be repeated up to 3 credits. Traditional Grading with RR. (2+2P)
Prerequisite(s): Appropriate placement score
View Course Outcomes

CCDR 110 N Effective College Reading 3 Credits (3)
Provides a variety of strategies for effective reading and studying at the college level. Emphasis on reading across disciplines. Course earns institutional credit but will not count towards degree requirements. Graded: Traditional with RR. (2+2P)
Prerequisite(s): Appropriate placement score
Repeatable: up to 3 credits
Learning Outcomes
1. Demonstrate the main idea and supporting details within diverse sources
2. Explain patterns of organization, detecting facts and opinions, and recognizing inferences among a variety of materials
3. Define vocabulary with word parts and in context across the disciplines
4. Apply reading strategies for previewing college textbook selections and comprehending content
5. Demonstrate how to use a vocabulary strategy for learning new textbook terminology
6. Demonstrate how to utilize the organization of a text selection for the purpose of locating specific information including main ideas and supporting details.

View Course Outcomes

Developmental Skills (CCDS)

CCDS 104 N CMPRHNSVE RDG DVLPMNT 4 Credits (4)
View Course Outcomes

CCDS 109 N Study Skills for Reading 1-3 Credits
Individualized reading skill strategies necessary for success in college classroom. Graded traditional or S/U.
Repeatable: for a maximum of 3 credits
View Course Outcomes

CCDS 111 N Study Skills for Math 3 Credits (3)
Individualized study skill strategies necessary for success in the math classroom.
Repeatable: up to 3 credits
Learning Outcomes
1. Implement study skills specific to mathematics by being able to identify, define, memorize, and analyze key terms an concepts.
2. Create and use math study guides and other visual aids.
3. Apply study skills to master concepts introduced in CCDM 114N.
4. Utilize technology such as "My Math Lab" and other software programs in order to support learning in CCDM 114N.

View Course Outcomes

CCDS 113 N Study Skills for English 1-3 Credits
Individualized study skill strategies necessary for success in the composition classroom.
Repeatable: for a maximum of 3 credits
Learning Outcomes
1. Analyze communication through reading and writing skills.
2. Employ writing processes such as planning, organizing, composing, and revising.
3. Express a primary purpose and organize supporting points logically.
4. Use and document research evidence appropriate for college-level writing.
5. Employ academic writing styles appropriate for different genres and audiences.
6. Identify and correct grammatical and mechanical errors in their writing.

View Course Outcomes

CCDS 119 N College Reading and Writing 4 Credits (4)
Instruction and practice in preparation for college-level reading and writing. Students will develop and write essays, work on the writing process, and learn to read and analyze college-level texts. Traditional Grading with RR.
Prerequisite(s): Appropriate placement test score
View Course Outcomes

Digital Graphic Technology (OEGR)

OEGR 221 Cooperative Experience I 1-3 Credits
Student employed in approved work site; supervised and rated by employer and instructor. Each credit requires specified number of hours of on-the-job work experience. Restricted to majors. Graded S/U.
View Course Outcomes

Drafting (DRFT)

DRFT 100 Introduction to Architecture, Engineering, & Construction 3 Credits (3)
Introduction to and exploration of careers in the fields of architecture, engineering, and construction. Specific fields to include: architecture, civil engineering, mechanical engineering, structural engineering, engineering technology, residential construction, commercial construction, geographical information systems (GIS), surveying, sustainable design, and green building.
Crosslist: ARCH 1310
View Course Outcomes

DRFT 101 Introduction to Drafting and Design Technologies 1 Credit (1)
Professional and student organizations associated with the Drafting and Design Technologies program, degree requirements, employment skills and work habits, and university and college policies and procedures will be explored. Students will be introduced to the current learning management system and career-readiness certification.
View Course Outcomes

DRFT 105 Technical Drawing for Industry 3 Credits (3)
Technical sketching, basic CAD, and interpretation of drawings with visualization, speed and accuracy highly emphasized. Areas of focus include various trades such as machine parts, welding, heating and cooling, and general building sketches/plan interpretation. (2+2P)
View Course Outcomes

DRFT 108 Drafting Concepts/Descriptive Geometry 2 Credits (2)
Basic manual drafting skills, sketching, terminology and visualization. Graphical solutions utilizing applied concepts of space, planar, linear and point analyses. Metric and S.I. units introduced. (1+2P)
View Course Outcomes

DRFT 109 Computer Drafting Fundamentals 3 Credits (3)
Introduction to principles and fundamentals of drafting using both manual drawing techniques and computer-aided drafting (CAD) applications. (2+2P)
Repeatable: up to 3 credits
Crosslist: E T 109 and C E 109
View Course Outcomes

DRFT 112 Drafting Concepts/Computer Drafting Fundamentals I 4 Credits (4)
Basic drafting skills, terminology, and visualization. Introduction to principles and fundamentals of computer-aided drafting. Prerequisites: OECS 207, OECS 125. (2+4P)
View Course Outcomes

DRFT 113 Drafting Concepts/Computer Drafting Fundamentals II 4 Credits (4)
Drafting for mechanical/industrial applications; machine part detailing, assemblies in orthographic, isometric, auxiliary, oblique, and sectional views. Two-dimensional AutoCAD with introduction to 3-D AutoCAD. (2+4P)
Prerequisite(s): DRFT 112
Learning Outcomes
1. Create and draw a logo and title block
2. Design living spaces
3. Design and draw a workable floor plan, fully dimensioned with schedules
4. Locate and draw the floor plan on a site plan
5. Draw interior and exterior elevations
6. Draw sections and details
7. Save and plot

View Course Outcomes

DRFT 114 Introduction to Solid Modeling 3 Credits (3)
2D mechanical drafting and 3D mechanical solid modeling utilizing the latest version of AutoCAD software. Industry dimensioning and annotation standards will be emphasized. 2D multi-view working drawings, 3D solid models, and basic 3D model assemblies will be introduced.
Prerequisite(s): DRFT 109 (2+2P)
Learning Outcomes
1. Upon successful completion of this course, the student will have an understanding of and the ability to use CAD techniques.

View Course Outcomes

DRFT 115 General Construction Safety 3 Credits (3)
Overview of general construction safety related to building, highway and road construction, and surveying field work for entry-level individuals. Students will also have the opportunity to earn a 10-hour construction industry OSHA card.
Repeatable: up to 3 credits
View Course Outcomes

DRFT 124 Introduction to Geometric Dimensioning and Tolerancing 3 Credits (3)
Introduction to geometric dimensioning and tolerancing (GD&T) for the mechanical CAD drafting, solid modeling, mechanical engineering technology, mechanical engineering, and manufacturing industries. Related industry standard finishes and fasteners will also be introduced and explored. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 130 General Building Codes 3 Credits (3)
Interpretation of the Building Code, local zoning codes, A.D.A. Standards and the Model Energy Code to study construction and design requirements and perform basic plan checking. (2+2P)
View Course Outcomes

DRFT 135 Electronics Drafting I 3 Credits (3)
Drafting as it relates to device symbols; wiring, cabling, harness diagrams and assembly drawings; integrated circuits and printed circuit boards; schematic, flow and logic diagrams; industrial controls and electric power fields. Drawings produced using various CAD software packages. Prerequisites: DRFT 108 and DRFT 109. (2+2P)
View Course Outcomes

DRFT 143 Civil Drafting Fundamentals 3 Credits (3)
Introduction to drafting in the field of Civil Engineering. Drawings, projects, and terminologies related to topographic, contour drawings, plan and profiles, and street/highway layout. (2+2P)
Prerequisite(s): DRFT 109
Crosslist: E T 143
View Course Outcomes

DRFT 151 Construction Principles and Print Reading 3 Credits (3)
Introduction to construction materials, methods, and basic cost estimating and print reading applicable in today's residential, commercial, and public works industry. Instruction by print reading and interpretation, field trips, and actual job-site visits and progress evaluation. (2+2P)
View Course Outcomes

DRFT 153 Survey Drafting Applications 3 Credits (3)
Introduction to drafting in the field of survey engineering. Drawings, projects and terminologies related to Point Data, topography, land/boundary surveys, legal descriptions and plat surveys. Using the current Autodesk software. (2+2P)
Prerequisite(s): DRFT 109
Crosslist: SUR 143
View Course Outcomes

DRFT 160 Construction Take-Offs and Estimating 3 Credits (3)
Computing and compiling materials and labor estimates from working drawings using various techniques common in general building construction and in accordance with standard specifications and estimating formats. Use of spreadsheets and estimating software introduced. (2+2P)
Prerequisite(s): DRFT 151
View Course Outcomes

DRFT 163 Civil Infrastructure Detailing 3 Credits (3)
Infrastructure detailing related to civil engineering projects including: ponding, roadway, sewer, and storm-water structures; concrete foundations; and related utility details. (2+2P)
Prerequisite(s): DRFT 109
View Course Outcomes

DRFT 164 Intermediate Mechanical Drafting/Solid Modeling 3 Credits (3)
Intermediate 3D mechanical parametric solid modeling and assembly creation utilizing the latest version of Autodesk Inventor software. The creation of 2D working drawings from 3D solid models will be emphasized. Geometric Dimensioning and Tolerancing (GD&T), basic material properties, and industry standard fastening and manufacturing methods will be introduced. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 165 Introduction to Building Information Modeling 3 Credits (3)
Introduction to Building Information Modeling (BIM) in the development of virtual 3D building models, construction documents, renderings and basic animations related to architectural, structural, and mechanical/electrical/plumbing building components. Utilizes the latest BIM technologies in the integration one, parametric BIM. (2+2P)
View Course Outcomes

DRFT 180 Residential Drafting 3 Credits (3)
Basic residential drafting including, floor plans, foundation plans, sections, roof plans, exterior and interior elevations, and site plans. Applicable residential building and zoning codes, construction methods and materials, adaptable residential design, and drawing and sheet layout for architectural drafting will be introduced. (2+2P)
Prerequisite(s): DRFT 109
Learning Outcomes
1. Create and draw a logo and title block
2. Design living spaces
3. Design and draw a workable floor plan, fully dimensioned with schedules
4. Locate and draw the floor plan on a site plan
5. Draw interior and exterior elevations
6. Draw sections and details
7. Save and plot

View Course Outcomes

DRFT 181 Commercial Drafting 3 Credits (3)
Drafting principles, plan coordination, and code analysis applicable in the development of working drawings for commercial, public, and industrial building projects. Students will utilize National Cad Standards, ADA Standards, and will be introduced to modern office practice. (2+2P)
Prerequisite(s): DRFT 109
Repeatable: up to 3 credits
Learning Outcomes
1. Upon successful completion of this course, the student will understand and the ability to use CAD techniques in construction.

View Course Outcomes

DRFT 190 Finding and Maintaining Employment 2 Credits (2)
Techniques in self-evaluations, resume writing, application completion, job interviewing, and job retention. Exposure to work ethics, employee attitudes, and employer expectations.
View Course Outcomes

DRFT 204 Geographic Information Systems Technology 3 Credits (3)
The use of digital information for which various digitized data creation methods are captured. Users will capture, store, analyze and manage spatially referenced data in a modeled mapping procedure. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

DRFT 214 Advanced Solid Modeling 3 Credits (3)
Advanced 3D mechanical parametric solid modeling and assembly creation utilizing the latest version of Solidworks software. The creation of 2D working drawings from 3D solid models and the creation of 3D models for machining/manufacturing will be emphasized. Geometric Dimensioning and Tolerancing (GD&T), material properties, and industry standard fastening and manufacturing methods will be further explored. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 114
View Course Outcomes

DRFT 222 Introduction to Geomatics 3 Credits (3)
Theory and practice of geomatics as applied to plane surveying in the areas of linear measurements, angle measurements, area determination, differential and trigonometric leveling, and topographic mapping. (2+3P)
Prerequisite(s): MATH 1250G or MATH 1430G
Crosslist: SUR 222
View Course Outcomes

DRFT 230 Building Systems Drafting 3 Credits (3)
Development of working drawings for electrical, plumbing, and HVAC systems, for residential and commercial building through the applications of both 2D Drafting and 3D Building Information Modeling (BIM) techniques. Basics of project setup, National CAD Standards, ADA Standards, modern office practice, code analysis, as well as Sustainability and LEED for new construction. (2+2P)
Prerequisite(s): DRFT 180 or DRFT 181
View Course Outcomes

DRFT 240 Structural Systems Drafting 3 Credits (3)
Study of foundations, wall systems, floor systems and roof systems in residential, commercial and industrial design/construction. Produce structural drawings including foundation plans, wall and building sections, floor and roof framing plans, shop drawings and details; schedules, materials lists and specifications. Use of various software. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 180 or DRFT 181
Repeatable: up to 3 credits
View Course Outcomes

DRFT 242 Roadway Development Drafting 3 Credits (3)
Advanced civil/survey technology and drafting related to roadway development. Emphasis is on relevant terminology, codes/standards, and the production of complex working drawings such as topographical/grading, drainage, master utilities, roadway P P/details/etc., according to agency standards. (2+2P)
Prerequisite(s): DRFT 143
Repeatable: up to 3 credits
View Course Outcomes

DRFT 243 Land Development Drafting 3 Credits (3)
Advanced civil/survey technology and drafting related to land development. Emphasis is on relevant terminology codes/standards, and the production of complex working drawings such as subdivision plats, local utility and drainage plans, construction details roadway P P, etc., according to local development/agency standards. (2+2P)
Prerequisite(s): DRFT 143 and DRFT 153
View Course Outcomes

DRFT 250 Principles of Detailing and Design 3 Credits (3)
Advanced practice in construction documentation in the development and coordination of working drawings & specifications. In particular, will utilize Architectural Graphic Standards, National CAD Standards, and ADA standards to develop detail drawings related to Architectural, Civil, Structural and Building Mechanical systems. Will also be introduced to basic principles, factors, and process of building design such as space planning, site analysis, and basic architectural programming. (2+2P)
Prerequisite(s)/Corequisite(s): DRFT 180 or DRFT 181
Repeatable: up to 3 credits
View Course Outcomes

DRFT 254 Spatial Data Processing 3 Credits (3)
Utilizes the tools and technologies of GIS, processing volumes of geodata identifying a numerical, coded or listed map. Involves the analysis of spatial data from various diverse applications and place in a descriptive mapping process. (2+2P)
Prerequisite(s): DRFT 204
Repeatable: up to 3 credits
View Course Outcomes

DRFT 255 Independent Study 1-3 Credits
Instructor-approved projects in drafting or related topics specific to the student's individual areas of interest and relevant to the drafting and graphics technology curriculum. Consent of instructor required.
Repeatable: for a maximum of 6 credits
View Course Outcomes

DRFT 258 Introduction to Infraworks 3 Credits (3)
Introduction to the utilization of Infraworks software for the conceptualization, optimization, and visualization of infrastructure projects in the context of the built and natural environment. (2+2P)
Prerequisite(s): DRFT 143
View Course Outcomes

DRFT 265 Advanced Building Information Modeling Applications 3 Credits (3)
Advanced applications of Building Information Modeling (BIM) including the creation of, and practice in collaborative work sets, data and design analyses, energy modeling and analysis, preliminary LEED analysis, construction take-offs & estimation, and construction animation, through use of various BIM and related software. (2+2P)
Prerequisite(s): DRFT 165
View Course Outcomes

DRFT 274 GIS Theory and Analysis 3 Credits (3)
Analyzes the hypothesis in which location and spatial data sufficiently quantities the appropriate statistical methodology. (2+2P)
Prerequisite(s): DRFT 254
Repeatable: up to 3 credits
View Course Outcomes

DRFT 276 Computer Rendering and Animation I 3 Credits (3)
Introduction to technical applications of computer generated renderings and animations for the architecture and engineering fields. 3D models, photo-realistic renderings, and basic animation movie files will be produced utilizing industry standard modeling and animation software. (2+2P)
View Course Outcomes

DRFT 288 Portfolio Development 3 Credits (3)
Production of a portfolio consisting of previously produced student work related to the student's individualized degree option. Process shall include the compilation and organization of working and presentation drawings, construction documents, BIM Models, and renderings/animations. Students will learn the basics of design layout and online portfolio documentation. Job search and resume preparation activities will also be required. Production of new material and content may also be required. This course is designed as a last semester course in the Drafting & Design curricula. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

DRFT 290 Special Topics 4 Credits (4)
Topics subtitled in the Schedule of Classes.
Repeatable: for a maximum of 12 credits
View Course Outcomes

DRFT 291 Cooperative Experience 6 Credits (6)
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student meets with advisor weekly. Graded S/U.
View Course Outcomes

DRFT 295 Professional Development and Leadership DAGA 1 Credit (1)
Students gain experience in leadership, team building, performing community service, and membership and/or leadership in a student organization.
Repeatable: up to 6 credits
View Course Outcomes

Early Childhood Education (ECED)

ECED 1110 Child Growth, Development, and Learning 3 Credits (3)
This basic course in the growth, development, and learning of young children, prenatal through age eight, provides students with the theoretical foundation for becoming competent early childhood professionals. The course includes knowledge of how young children grow, develop and learn. Major theories of child development are integrated with all domains of development, including biological-physical, social, cultural, emotional, cognitive and language. The adult's role in supporting each child's growth, development and learning is emphasized.

Learning Outcomes

1. Incorporate understanding of developmental stages, processes, and theories of growth, development, and learning into developmentally appropriate practice. A.1

2. Demonstrate knowledge of the interaction between maturation and environmental factors that influence physical, social, emotional, cognitive, and cultural domains in the healthy development of each child. A.2

3. Demonstrate knowledge of the significance of individual differences in development and learning.

4. Demonstrate knowledge of how certain differences may be associated with rate of development and

5. developmental patterns associated with developmental delays and/or specific disabilities. A.3

6. Demonstrate knowledge of the similarities between children who are developing typically and those with diverse abilities. A.4

7. Demonstrate knowledge of the many functions that language serves in the cognitive, social, and emotional aspects of development in the formative years. A.7

8. Demonstrate knowledge of the developmental sequence of language and literacy, including the

9. influence of culture and home factors. A.8 1

10. Demonstrate knowledge of how children acquire and use verbal, non-verbal, and alternative means of communication. A.9 1

11. Demonstrate knowledge of the relationship among emotions, behaviors, and communication skills to assist children in identifying and expressing their feelings in appropriate ways. A.10 1

12. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11

View Course Outcomes

ECED 1115 Health, Safety, and Nutrition 2 Credits (2)
This course provides information related to standards and practices that promote children's physical and mental well-being sound nutritional practices, and maintenance of safe learning environments. It includes information for developing sound health and safety management procedures for indoor and outdoor learning environments for young children. The course examines the many scheduling factors that are important for children's total development, healthy nutrition, physical activity, and rest.

Learning Outcomes

1. Recognize and respond to each child's physical health, intellectual and emotional well-being, and nutritional and safety needs. B.1

2. Articulate an understanding of indoor and outdoor learning environments that provide opportunities for children to put into practice healthy behaviors (physically, socially and emotionally). B.2

3. Use appropriate health appraisal and management procedures and makes referrals when necessary. B.3

4. Recognize signs of emotional distress, child abuse, and neglect in young children and use procedures appropriate to the situation, such as initiating discussions with families, referring to appropriate professionals, and, in cases of suspected abuse or neglect, reporting to designated authorities. B.4

5. Establish an environment that provides opportunities and reinforcement for children's practice of healthy behaviors that promote appropriate nutrition and physical and psychological well-being. B.5

6. Provide a consistent daily schedule for rest/sleep, as developmentally appropriate. B.6

7. Implement health care and educational activities for children and families based on health and nutritional information that is responsive to diverse cultures. B.7

8. Assist young children and their families, as individually appropriate, in developing decision- making and interpersonal skills that enable them to make healthy choices and establish health-promoting behaviors. B.8

View Course Outcomes

ECED 1120 Guiding Young Children 3 Credits (3)
This course explores various theories of child guidance and the practical applications of each. It provides developmentally appropriate methods for guiding children and effective strategies and suggestions for facilitating positive social interactions. Strategies for preventing challenging behaviors through the use of environment, routines and schedule will be presented Emphasis is placed on helping children become self- responsible, competent, independent, and cooperative learners and including families as part of the guidance approach.
Learning Outcomes
1. Apply knowledge of cultural and linguistic diversity and the significance of socio-cultural and political contexts for development and learning and recognize that children are best understood in the contexts of family, culture and society. A.6
2. Demonstrate knowledge of the many functions that language serves in the cognitive, social, and emotional aspects of development in the formative years. A.7
3. Demonstrate knowledge of the relationship among emotions, behaviors, and communication skills to assist children in identifying and expressing their feelings in appropriate ways. A.10
4. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11
5. Recognize and respond to each child's physical health, intellectual and emotional well-being, and nutritional and safety needs. B.1
6. Demonstrate knowledge and skill in building positive, reciprocal relationships with families. C.1
7. Demonstrate knowledge of and respect for variations across cultures, in terms of family strengths, expectations, values, and child-rearing practices. C.4
8. Demonstrate the ability to incorporate the families' desires and goals for their children into classroom or intervention strategies. C.7
9. Demonstrate knowledge and skills in developmentally appropriate guidance techniques and strategies that provide opportunities to assist children in development positive thoughts and feelings about themselves and others through cooperative interaction with peers and adults. E.3 1
10. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7 1
11. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the application of this.

View Course Outcomes

ECED 1125 Assessment of Children and Evaluation of Programs 3 Credits (3)
This basic course familiarizes students with a variety of culturally appropriate assessment methods and instruments, including systematic observation of typically and non-typically developing children. The course addresses the development and use of formative and summative assessment and evaluation instruments to ensure comprehensive quality of the total environment for children, families, and the community. Students will develop skills for evaluating the assessment process and involving other teachers, professionals and families in the process. Repeatable: up to 3 credits.
Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H)
Learning Outcomes
1. Demonstrate ability to choose valid tools that are developmentally, culturally, and linguistically appropriate; use the tools correctly; make appropriate referrals; and interpret assessment results, with the goal of obtaining valid, useful information to inform practice and decision making. F.1
2. Demonstrate knowledge of maintaining appropriate records of children's development and behavior that safeguard confidentiality and privacy. F.2
3. Demonstrate knowledge of the educator's role as a participating member of the assessment process as described and mandated by state and federal regulations for Individual family service plans (IFSP) and individual education plans (IEP). F.3
4. Demonstrate understanding of the influences of environmental factors, cultural/linguistic differences, and diverse ways of learning on assessment outcomes. F.4
5. Involve the family and, as appropriate, other team members in assessing the child's development, strengths, and needs in order to set goals for the child. F.5
6. Articulate an understanding of the distinctions and definitions of assessment concepts (e.g., screening, diagnostic assessment, standardized, testing, accountability assessment). F.6
7. Apply understanding of assessment concepts toward selection of appropriate formal assessment measures, critiquing the limitations of inappropriate measures, and discussing assessment issues as part of interdisciplinary teams. F.7
8. Articulate an understanding that responsible assessment is legally and ethically grounded and guided by sound professional. It standards is collaborative and open with the goal of supporting diverse children and families. F.8
9. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the Application of this data to curriculum development and/or intervention planning. F.9
10. Demonstrate knowledge of a variety of techniques and procedures to evaluate and modify program goals for young children and their families. F.1
11. Demonstrate knowledge and use of program evaluation to ensure comprehensive quality of the total Environment for children, families, and the community. F.11
12. Use both self and collaborative evaluations as part of ongoing program evaluations. F.12

View Course Outcomes

ECED 1130 Family and Community Collaboration 3 Credits (3)

This beginning course examines the involvement of families and communities from diverse cultural and linguistic backgrounds in early childhood programs. Ways to establishes collaborative relationships with families in early childhood settings is discussed. Families' goals and desires for their children will be supported through culturally responsive strategies. Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H or ENGL 1110M)

Learning Outcomes

1. Demonstrate knowledge and skill in building positive, reciprocal relationships with families. C.1

2. Articulate an understanding of a safe and welcoming environment for families and community members. C.2

3. Develop and maintain ongoing contact with families through a variety of communication strategies. C.3

4. Demonstrate knowledge of and respect for variations across cultures, in terms of family strengths, expectations, values, and child-rearing practices. C.4

5. Articulate understanding of the complexity and dynamics of family systems. C.5

6. Demonstrate understanding of the importance of families as the primary educator of their child. C.6

7. Involve families and community members in contributing to the learning environment. C.9

8. Demonstrate ability to communicate to families the program's policies, procedures, and those procedural safeguards that are mandated by state and federal regulations. C.11

9. Apply knowledge of family theory and research to understand family and community characteristics including socioeconomic conditions; family structures, relationships, stressors, and supports (including the impact of having a child with diverse abilities); home language and ethnicity. C.12 1

10. Demonstrate knowledge of and skill to access community resources that assist families and contribute directly or indirectly to children's positive development such as mental health services, health care, adult education, English language instruction, and economic assistance. C.13 1

11. Demonstrate effective written and oral communication skills when working with children, families, and early care, education, and family support professionals. E.14 1

12. Demonstrate a commitment to leadership and advocacy for excellence in programs and services for young children and their families. G.6

View Course Outcomes

ECED 2110 Professionalism 2 Credits (2)

This course provides a broad-based orientation to the field of early care and education. Early childhood history, philosophy, ethics and advocacy are introduced. Basic principles of early childhood systems are explored.

Learning Outcomes

1. Recognize signs of emotional distress, child abuse, and neglect in young children and use procedures appropriate to the situation, such as initiating discussions with families, referring to appropriate professionals, and, in cases of suspected abuse or neglect, reporting to designated authorities. B.4

2. Demonstrate ability to communicate to families the program's policies, procedures, and those procedural safeguards that are mandated by state and federal regulations. C.11

3. Use both self and collaborative evaluations as part of ongoing program evaluations. F.12

4. Demonstrate ability to adhere to early childhood professional codes of ethical conduct and issues of confidentiality. G.1

5. Demonstrate awareness of federal, state, and local regulations, and public policies regarding programs and services for children birth through eight years of age. G.2

6. Demonstrate understanding of conditions of children, families, and professionals; the historical and current issues and trends; legal issues; and legislation and other public policies affecting children, families, and programs for young children and the early childhood profession. G.3

7. Demonstrate critical reflection of one's own professional and educational practices from community, state, national, and global perspectives. G.4

8. Demonstrate understanding of the early childhood profession, its multiple historical, philosophical, and social foundations, and how these foundations influence current thought and practice. G.5

9. Demonstrate knowledge in technology resources to engage in ongoing professional development. G.7

View Course Outcomes

ECED 2115 Introduction into Language, Literacy, and Reading 3 Credits (3)

This course is designed to prepare early childhood professionals for promoting children's emergent literacy and reading development. Through a developmental approach, the course addresses ways in which early childhood professionals can foster young children's oral language development, phonemic awareness, and literacy problem solving skills, fluency, vocabulary, and comprehension. . This course provides the foundation for early childhood professionals to become knowledgeable about literacy development in young children. Instructional approaches and theory-based and research based strategies to support the emergent literacy and reading skills of native speakers and English language learners will be presented. Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H, or ENGL 1110M)

Learning Outcomes
1. Demonstrate knowledge of the many functions that language serves in the cognitive, social, and emotional aspects of development in the formative years. A.7
2. Demonstrate knowledge of the developmental sequence of language and literacy, including the influence of culture and home factors. A.8
3. Demonstrate knowledge of how children acquire and use verbal, non-verbal, and alternative means of communication. A.9
4. Develop partnerships with family members to promote early literacy in the home. C.8
5. Establish partnerships with community members in promoting literacy. C.10
6. Demonstrate knowledge of the reading and writing components of emergent literacy at each developmental level. D.4
7. Provide and use anti-bias materials/literature and experiences in all content areas of the curriculum. D.7
8. Create and manage a literacy-rich environment that is responsive to each child's unique path of development. E.9
9. Use a variety of strategies during adult-child and child-child interactions and facilitate communication and dialogue of expressive language and thought. E.10 1
10. Demonstrate a variety of developmentally appropriate instructional strategies that facilitate the development of literacy skills. E.11

View Course Outcomes

ECED 2120 Curriculum Development through Play Birth through Age 4 (PreK) 3 Credits (3)

The beginning curriculum course places play at the center of curriculum in developmentally appropriate early childhood programs. It addresses content that is relevant for children birth through age four in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age four, is emphasized.Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H or ENGL 1110M)

Corequisite(s): ECED 2121

Learning Outcomes
1. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11
2. Demonstrate knowledge of relevant content for young children and developmentally appropriate ways of integrating content into teaching and learning experiences for children from birth to four (0-4) years of age. D.1
3. Demonstrate the integration of knowledge of how young children develop and learn with knowledge of the concepts, inquiry tools, and structure of content areas appropriate for different developmental levels. D.2
4. Adapt content to meet the needs of each child, including the development of individualized family service plans (IFSP) or individualized education plans (IEP) for children with diverse abilities through the team process with families and other team members. D.6
5. Demonstrate knowledge of varying program models and learning environments that meet the individual needs of all young children, including those with diverse abilities. E.1
6. Create environments that encourage active involvement, initiative, responsibility, and a growing sense of autonomy through the selection and use of materials and equipment that are suitable to individual learning, developmental levels, diverse abilities, and the language and cultures in New Mexico. E.2
7. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4
8. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5
9. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6 1
10. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7 1
11. Use and explain the rationale for developmentally appropriate methods that include play, small group projects, open-ended questioning, group discussion, problem solving, cooperative learning and inquiry experiences to help young children develop intellectual curiosity, solve problems, and make decisions. E.8 1
12. Demonstrate a variety of developmentally appropriate instructional strategies that facilitate the development of emergent literacy skills. E.11 1
13. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the application of this data to curriculum development of intervention planning. F.9

View Course Outcomes

ECED 2121 Curriculum Development through Play Birth through Age 4 (PreK) Practicum 2 Credits (2)

The beginning practicum course is a co-requisite with the course Curriculum Development through Play – Birth through Age 4. The field-based component of this course will provide experiences that address curriculum content that is relevant for children birth through age four in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age four, is emphasized.Repeatable: up to 2 credits.

Prerequisite(s): ECED 1110 and (ENGL 1110G or ENGL 1110H or ENGL 1110M)

Corequisite(s): ECED 2120

Learning Outcomes

1. Provide a variety of activities that facilitate development of the whole child in the following areas: Physical/motor, social/emotional, language/cognitive and adaptive/living skills. A.5

2. Develop, implement and evaluate an integrated curriculum that focuses on children's development and interests, using their language, home experiences, and cultural values. D.5

3. Provides and uses anti-bias materials and literature, and experiences in all content areas of the curriculum. D.7

4. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4

5. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5

6. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6

7. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7

8. Use and explain the rationale for developmentally appropriate methods that include play, small group projects, open-ended questioning, group discussion, problem solving, cooperative learning and inquiry experiences to help young children develop intellectual curiosity, solve problems, and make decisions. E.8

View Course Outcomes

ECED 2130 Curriculum Development and Implementation Age 3 (PreK) through Grade 3 3 Credits (3)

The curriculum course focuses on developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills, is emphasized. Information on adapting content areas to meet the needs of children with special needs and the development of IEPs is included. Repeatable: up to 3 credits.

Prerequisite(s): ECED 1110, ECED 2120 and ECED 2121 (ENGL 1110G or ENGL 1110H)

Learning Outcomes

1. Use appropriate guidance to support the development of self-regulatory capacities in young children. A.11

2. Demonstrate the integration of knowledge of how young children develop and learn with knowledge of the concepts, inquiry tools, and structure of content areas appropriate for different developmental levels. D.2

3. Demonstrate knowledge of what is important in each content area, why it is of value, and how it links with early and later understandings within and across areas. D.3

4. Demonstrate knowledge of the language, reading and writing components of emergent literacy at each developmental level. D.4

5. Adapt content to meet the needs of each child, including the development of individualized family service plans (IFSP) or individualized education plans (IEP) for children with diverse abilities through the team process with families and other team members. D.6

6. Demonstrate knowledge of varying program models and learning environments that meet the individual needs of all young children, including those with diverse abilities. E.1

7. Create environments that encourage active involvement, initiative, responsibility, and a growing sense of autonomy through the selection and use of materials and equipment that are suitable to individual learning, developmental levels, diverse abilities, and the language and cultures in New Mexico. E.2

8. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4

9. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5 1

10. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6 1

11. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7 1

12. Demonstrate knowledge of developmentally appropriate uses of technology, including assistive technology. E.12 1

13. Demonstrate knowledge of assessment techniques, interpretation of assessment information in the application of this data to curriculum development of intervention planning. F.9

View Course Outcomes

ECED 2131 Curriculum Dvlpmnt & Implementation Age 3 (PreK) through Grade 3 Practicum 2 Credits (2)

The beginning practicum course is a co-requisite with the course Curriculum Development and Implementation: Age 3 through Grade 3. The field based component of this course will provide experiences that address developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills is emphasized. Information on adapting content areas to meet the needs of children with special needs and the development of IEPs is included. Repeatable: up to 2 credits.

Prerequisite(s): ECED 1110 (ENGL 1110G or ENGL 1110H), ECED 2120, and ECED 2121

Corequisite(s): ECED 2130

Learning Outcomes

1. Provide a variety of activities that facilitate development of the whole child in the following areas: Physical/motor, social/emotional, language/cognitive and adaptive/living skills. A.5

2. Develop, implement and evaluate an integrated curriculum that focuses on children's development and interests, using their language, home experiences, and cultural values. D.5

3. Provides and uses anti-bias materials and literature, and experiences in all content areas of the curriculum. D.7

4. Create and manage inclusive learning environments that provide individual and cooperative opportunities for children to construct their own knowledge through various strategies that include decision-making, problem solving, and inquiry experiences. E.4

5. Demonstrate understanding that each child's creative expression is unique and can be encouraged through diverse ways, including creative play. E.5

6. Plan blocks of uninterrupted time for children to persist at self-chosen activities, both indoors and outdoors. E.6

7. Demonstrate understanding of the influence of the physical setting, schedule, routines, and transitions on children and use these experiences to promote children's development and learning. E.7

8. Use and explain the rationale for developmentally appropriate methods that include play, small group projects, open-ended questioning, group discussion, problem solving, cooperative learning and inquiry experiences to help young children develop intellectual curiosity, solve problems, and make decisions. E.8

View Course Outcomes

ECED 2140 Effective Program Development for Diverse Learners and their Families 3 Credits (3)

This course 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. Repeatable: up to 3 credits.

Learning Outcomes

1. Describe important aspects of leadership that an administrator in an early childhood setting must demonstrate.

2. Identify and describe ways in which classrooms can have a multicultural environment.

3. Observe a classroom and identify, using photographs, good practice with classroom environment.

4. Describe important aspects of a good early childhood curriculum.

5. Describe how culture and socioeconomic factors influence classroom environment.

View Course Outcomes

ECED 2141 Effective Program Development for Diverse Learners and their Families Pract 2 Credits (2)

Provides opportunities for students to apply knowledge gained from Curriculum for Diverse Learners and their Families in a practicum setting. Restricted to ECED majors. Repeatable: up to 2 credits.

Corequisite(s): ECED 2140

View Course Outcomes

ECED 2215 Program Management 3 Credits (3)

This course emphasizes the technical knowledge necessary to develop and maintain an effective early care and education program. It focuses on sound financial management and vision, the laws and legal issues that affect programs, and state and national standards such as accreditation. Repeatable: up to 3 credits.

Learning Outcomes

1. Develop a comprehensive program philosophy.

2. Demonstrate the ability to develop systems that are effective for quality program operation.

3. Create a program budget and understand the Income and Expense sides and what affects each part.

4. Model best practices that integrate various leadership styles.

View Course Outcomes

ECED 2280 Professional Relationships 3 Credits (3)
This course addresses staff relations that will foster diverse professional relationships with families, communities and boards. Topics of staff recruitment, retention, support and supervision will lay the foundation for positive personnel, family and community relationships. Repeatable: up to 3 credits.
Corequisite(s): ECED 2281
Learning Outcomes
1. Interview an administrator and write a paper describing personnel management, staff support, supervision, and professional development.
2. Identify and describe ethical and legal requirements in maintaining a professional relationship with subordinates, the community, clients, and fellow administrators.
3. Identify and describe technologies which may be used in an early childhood setting.
4. Identify and describe legal and ethical considerations in the employment of others.

View Course Outcomes

ECED 2281 Professional Relationships Practicum 2 Credits (2)
Practical experience in the development of staff relationship that will foster professional relationships with families, communities and boards. Issues of staff recruitment, retention, support and supervision will lay a foundation for positive personnel management. Restricted to ECED majors.
Corequisite(s): ECED 2280
View Course Outcomes

Economics (ECON)

ECON 1110G Survey of Economics 3 Credits (3)
This course will develop students economics literacy and teaches students how economics relates to the everyday life of individuals, businesses and society in general. The course will also introduce students to the roles different levels of governments play in influencing the economy. At the conclusion of the course, students will be able to identify economic causes for various political and social problems at national and international levels, and have a better understanding of everyday economic issues that are reported in media and public forums.
View Course Outcomes

ECON 2110G Macroeconomic Principles 3 Credits (3)
Macroeconomics is the study of national and global economies. Topics include output, unemployment and inflation; and how they are affected by financial systems, fiscal and monetary policies.
View Course Outcomes

ECON 2110H Principles of Macroeconomics Honors 3 Credits (3)
Macroeconomic theory and public policy designed: national income concepts, unemployment, inflation, economic growth and international payment problems.
Prerequisite(s): MATH 1220G
View Course Outcomes

ECON 2120G Microeconomic Principles 3 Credits (3)
This course will provide a broad overview of microeconomics. Microeconomics is the study of issues specific to households, firms, or industries with an emphasis on the role of markets. Topics discussed will include household and firm behavior, demand and supply, government intervention, market structures, and the efficient allocation of resources.
View Course Outcomes

ECON 2120H Principles of Microeconomics Honors 3 Credits (3)
Microeconomic theory and public policy: supply and demand, theory of the firm, market allocation of resources, income distribution, competition and monopoly, governmental regulation of businesses and unions. .
Prerequisite(s): MATH 1220G
View Course Outcomes

Education (EDUC)

EDUC 1110 Freshman Orientation 1 Credit (1)
Introduction to the College. Discussion of planning for individualized education program and field experience. Repeatable: up to 1 credit.
Learning Outcomes
1. Demonstrates knowledge of and uses theories, approaches, methods, and techniques for teaching, reading, writing, and other academic skills in English and the native language.
2. Demonstrates knowledge of and applies management techniques appropriate to classrooms containing students who have varying levels of proficiency and academic experience in both languages. Community/Family Involvement The bilingual teacher.
3. Recognizes the importance of parental and community involvement for facilitating the learner's successful integration to his/her school environment.
4. Demonstrates knowledge of the teaching and learning patterns of the students' home environment and incorporates these into the instructional areas of program. Assessment The bilingual teacher.
5. Assesses oral and written language proficiency in academic areas in both languages utilizing the results for instructional placement, prescription, and evaluation.
6. Evaluates the growth of the learner's native and second language in the context of the curriculum.
7. Continuously assesses and adjusts her or his own language use in the classroom in order to maximize learner comprehension and verbal participation.

View Course Outcomes

EDUC 1120 Introduction to Education 2 Credits (2)
Introduction to the historical, philosophical, sociological foundations of education, current trends, and issues in education; especially as it relates to a multicultural environment. Students will use those foundations to develop effective strategies related to problems, issues and responsibilities in the field of education. Repeatable: up to 2 credits.
Learning Outcomes
1. Describe the teaching and learning of various American education settings including early childhood, elementary, middle school, high school, and special education.
2. Describe how teachers use educational theory and the results of research of students' learning.
3. Explain the techniques for establishing a positive and supportive environment in the classroom.
4. Identify and describe instructional strategies supported by current research to promote thinking skills of all learners.
5. Recognize the teachers' role and responsibilities in an increasingly diverse, multicultural society.

View Course Outcomes

EDUC 1140 Math for Paraprofessionals 3 Credits (3)
Applied math skills for paraprofessionals working with children.
Repeatable: up to 3 credits.
Prerequisite(s): CCDM 103 N
Learning Outcomes
1. Students will plan developmentally appropriate math activities for young children.
2. Students will plan adaptations to math activities for children with diverse abilities.
3. Students will demonstrate understanding of recent research in methods of teaching mathematics.
4. Students will demonstrate understanding of early childhood theories as they relate to the teaching of mathematics.
5. Students will demonstrate understanding of unique needs of children from diverse economic or cultural backgrounds.

View Course Outcomes

EDUC 1150 Math for Paraprofessionals II 3 Credits (3)
Applied math skills for paraprofessionals working under the direction of a teacher. Repeatable: up to 3 credits.
Prerequisite(s): EDUC 1140
Learning Outcomes
1. Students will plan developmentally appropriate math activities for young children.
2. Students will plan adaptations to math activities for children with diverse abilities.
3. Students will demonstrate understanding of recent research in methods of teaching mathematics.
4. Students will demonstrate understanding of early childhood theories as they relate to the teaching of mathematics.
5. Students will demonstrate understanding of unique needs of children from diverse economic or cultural backgrounds.

View Course Outcomes

EDUC 1185 Introduction to Secondary Education and Youth 3 Credits (3)
Introductory course for students considering a career in secondary education. Includes historical, philosophical, and sociological foundations, program organization, critical dispositions, and understanding the context of schools and youth. Practicum required. Restricted to: Secondary Ed majors. Traditional Grading with RR.
Learning Outcomes
1. Articulate the attributes of an education professional entering the field.
2. Differentiate and summarize the major educational philosophies and historical events that have influenced the progression of educational practice.
3. Describe the role of law in education with emphasis on the rights and responsibilities of teachers and learners.
4. Develop a preliminary personal philosophy of teaching and learning.
5. Discuss the characteristics and roles of the teacher, the student, and the school in today's education.
6. Identify effective teaching methods, instructional strategies and learning styles.
7. Evaluate the Lesson Planning Process using various lesson planning templates, formats, and rubrics.
8. Explain classroom management techniques.
9. Identify different types of diversity in the classroom environment. 1
10. Describe how learning differences are manifested in schools. 1
11. Describe how teachers use multiple methods of assessment to engage learners in their own growth, to monitor learner progress 1
12. Describe how teachers use multiple methods of assessment to modify instruction and inform decision making. 1
13. Identify the role of Standards and High Stakes Testing in the life of an educational professional 1
14. Complete 24 hours internship in a classroom, preferably a bilingual classroom. 1
15. Document and reflect on your observations throughout your internship. 1
16. Construct an individualized map to teacher licensure in the State of New Mexico.

View Course Outcomes

EDUC 1995 Cooperative Education in Education 1 Credit (1)
Introduction to public school teaching, school visits, classroom observations and discussion seminar.
Repeatable: up to 1 credit
View Course Outcomes

EDUC 1996 Topics in Education 1-3 Credits
Supervised study in a specific area of interest. Each course shall be designated by a qualifying subtitle. Repeatable: up to 9 credits.
View Course Outcomes

EDUC 1998 Internship in Education 3 Credits (3)
Supervised experience in elementary education settings.
Repeatable: up to 3 credits
Learning Outcomes
1. Demonstrate an understanding of personal attitudes and motivations for entering the field of education.
2. Identify effective teaching strategies that enhance Student Learning Outcomes.
3. Identify classroom management techniques and learning styles.
4. Develop observational skills and reflective thinking skills.
5. Evaluate instructional methods that enhance upper level thinking skills in children.

View Course Outcomes

EDUC 2710 Pre-Teacher Preparation 3 Credits (3)
Assists students in developing the necessary competencies needed for acceptance to the Teacher Education Program. Course content includes basic skill development, test taking skills, and completion of teacher preparation packet. Repeatable: up to 6 credits.
Learning Outcomes
1. Investigate the process and requirements of the Teacher Education Program
2. Read critically about teacher's experiences and write brief reactions
3. Discuss philosophies of education and draft a written personal philosophy of education
4. Discuss the nature of education for students with diverse languages, cultures and abilities
5. Draft personal position statements concerning education for students with disabilities and diverse cultures

View Course Outcomes

EDUC 2998 Field Experience in Education 3 Credits (3)
Supervised experience in junior high settings. Repeatable: up to 3 credits.
Prerequisite(s): must be a co-op student
View Course Outcomes

Educational Leadership Adminstration (ELAD)

ELAD 2210 Leadership and Change in Education 3 Credits (3)
This course will introduce students to the challenges and key strategies in initiating, implementing, and sustaining educational change and reform. In the first part of the course, participants will learn about the challenges of educational change in the United States and the role that they as school leaders play in facilitating change and reform. The course continues with an examination of how culture, micro-politics, and power structures support or impede national and global change initiatives. The last part of the course offers suggestions for change agents including community organizing, culture building, and embracing sustainable leadership practices. Participants will learn how to apply the change theories and concepts introduced in the course to practice through course readings, online discussions with the instructor and colleagues, group work, active examination of daily practice in schools, and personal reflection. Repeatable: up to 3 credits.
View Course Outcomes

ELAD 2340 Multicultural Leadership in Education 3 Credits (3)
Introduction to the social and cultural constructions of gender, class, and race. Students will critically apply theoretical constructs to everyday life and discuss the intersection of gender and race with class inequality in national and global contexts. Using a social justice framework, readings, and assignments integrate a variety of racial/ethnic groups while considering the effects of historically uneven resource distribution, unearned privilege, forms of domination and subordination, immigration status, and cultural representation and ideologies. Participants will learn how to apply the change theories and concepts introduced in the course to practice through course readings, online discussions with the instructor and colleagues, group work, active examination of daily practice in schools, and personal reflection. Repeatable: up to 3 credits.
Learning Outcomes
1. Develop awareness of their own social identities.
2. Students will recognize differences among various communities, perspectives, and world-views.
3. Describe how privilege and biases impact our communities and systems.
4. Create meaningful peer-to-peer relationships.
5. Understand the impact of their actions on community members.
6. Identify their leadership skills to shape social change on and off campus.
7. Act on opportunities to promote social change.
8. Students will use academic resources including advising, computers, printing, library, and space.

View Course Outcomes

ELAD 2996 Topics in Education 1-3 Credits
Special topics course in education for undergraduate students. Course will be identified by a subtitle. Repeatable: up to 12 credits.
Learning Outcomes
1. Students will be able to engage in systems thinking which aids in seeing how individual situations are shaped by a broader contexts.
2. Students will be able to understand how to apply theoretical frameworks for understanding social problems.
3. Students will be able to help develop leadership capacity in others.
4. Students will be able to gain an understanding of cultural competence, which recognizes that diverse perspectives strengthen the dialogue and approaches to solving social problems.

View Course Outcomes

Educational Technology (EDLT)

EDLT 2110 Integrating Technology with Teaching 3 Credits (3)
Considers impact of technology on communication and knowledge development; engages students in the design of technology-integrated lessons with a constructivist approach.
Prerequisite(s): ENGL 1110G
Learning Outcomes
  1. Students will demonstrate a sound understanding of technology operations and concepts.
  2. Students will plan and design effective learning environments and experiences supported by technology.
  3. Students will implement curriculum plans that include methods and strategies for applying technology to maximize learning.
  4. Students will apply technology to facilitate a variety of effective assessment and evaluation strategies.
  5. Students will use technology to enhance their productivity and professional practice.
  6. Students will better understand the social, ethical, legal, and human issues surrounding the use of technology on PreK-12 schools and apply that knowledge into future practice.

View Course Outcomes

Electrical Trades (OEET)

OEET 110 Basic Electricity and Electronics 4 Credits (4)
An introduction to electricity theory and practice, including electron theory, Ohm's law, construction of electrical circuits, direct and alternating currents, magnetism, transformers, and practical applications.
Crosslist: HVAC 102, ELT 105
Learning Outcomes
  1. Explain electrical theory.
  2. Describe the construction of electrical circuits.
  3. Describe some of the practical applications of basic electricity and electronics.

View Course Outcomes

OEET 120 Basic Motor Controls 5 Credits (5)
Developing schematics and wiring simple manual and electromechanical control devices.
Prerequisite(s): OEET 110
View Course Outcomes

OEET 151 Electrical Apprenticeship I 6 Credits (6)
Apprenticeship responsibilities and benefits as well as first aid and CPR will be covered. Hand tools, electrical theory, and the regulations imposed by national codes and OSHA. Students will apply theory taught in their jobs.
View Course Outcomes

OEET 152 Electrical Apprenticeship II 6 Credits (6)
OHM's law circuit sizing and service panel sizing will be covered in detail. Other topics include low voltage systems, heating and air conditioning circuits, alarm systems and smoke detectors. Prerequisites: OEET 151.
View Course Outcomes

OEET 153 Electrical Apprenticeship III 6 Credits (6)
Various electrical measuring devices will be covered in detail. Inductance, transformers, capacitance, and simple motors will be studied.
Prerequisites: OEET 152.
View Course Outcomes

OEET 154 Electrical Apprenticeship IV 6 Credits (6)
Theory and application of three-phase transformers and autotransformers. Electrical distribution using switchboards, panelboards, and circuit breakers. Prerequisites: OEET 153.
View Course Outcomes

OEET 205 National Electric Code 3 Credits (3)
Interpretation and application of the National Electric Code.
Prerequisite(s): OEET 110
View Course Outcomes

OEET 251 Electrical Apprenticeship V 3 Credits (3)
Commercial/industrial applications for electricians. Blueprint interpretation, commercial construction types and processes, wiring methods, wiring materials, and motor controls. Prerequisites: OEET 154.
View Course Outcomes

OEET 252 Electrical Apprenticeship VI 6 Credits (6)
In-depth commercial applications to include commercial/industrial service calculations, mobile home parks, multi-family dwellings, and commercial fire/security systems. Prerequisites: OEET 251.
View Course Outcomes

OEET 253 Electrical Apprenticeship VII 6 Credits (6)
Control devices in commercial/industrial applications; emphasis on logic in-line diagrams, time delay starters, reversing starters, and manual/magnetic solenoids. Prerequisites: OEET 252.
View Course Outcomes

OEET 254 Electrical Apprenticeship VIII 6 Credits (6)
Miscellaneous topics for the journeyperson electrician to include power distribution/transmission, solid state controls and relays, photoelectric and proximity controls and programmable controllers. Prerequisites: OEET 253.
View Course Outcomes

OEET 295 Special Topics 1-6 Credits
Topics to be announced in the Schedule of Classes.
View Course Outcomes

Electronics Techology (ELT)

ELT 105 Basic Electricity and Electronics 3 Credits (3)
Fundamental of electricity and electronics, basic circuit devices, meters, transistors, integrated circuits and other solid state devices, computers, fiber optics, and industrial application topics. Minimum math proficiency of CCDM 103 or CCDM 104 required or math placement into CCDM 114 or higher.
Crosslist: HVAC 102 and OEET 110
View Course Outcomes

ELT 220 Electronic Communication Systems 4 Credits (4)
Principles and applications of circuits and devices used in the transmission, reception, and processing of RF, microwave, digital and telecommunications systems.
Prerequisite(s): ELT 135
Prerequisite(s)/Corequisite(s): ELT 205
View Course Outcomes

Engineering (ENGR)

ENGR 100 G Introduction to Engineering 3 Credits (3)
An introduction to the various engineering disciplines, the engineering approach to problem solving, and the design process. Projects emphasize the importance of teamwork, written & oral communication skills, as well as ethical responsibilities. (2+3P)
Prerequisite(s)/Corequisite(s): MATH 1220G or above
Repeatable: up to 3 credits
View Course Outcomes

ENGR 110 Introduction to Engineering Design 3 Credits (3)
Sketching and orthographic projection. Covers detail and assembly working drawings, dimensioning, tolerance specification, and design project. (2+3)
View Course Outcomes

ENGR 111 Mathematics for Engineering Applications 3 Credits (3)
An introduction to engineering mathematics and basic programming skills needed to perform elementary data manipulation and analysis.
Prerequisite(s): MATH 1220G
Prerequisite(s)/Corequisite(s): MATH 1250G
View Course Outcomes

ENGR 120 DC Circuit Analysis 4 Credits (4)
This course provides an introduction DC circuit analysis using Ohm's law, Kirchoff laws, Thevenin's and Norton's theorems. (3+3P)
Corequisite(s): A grade of C- or better in MATH 1250G or higher
View Course Outcomes

ENGR 130 Digital Logic 4 Credits (4)
This course introduces logic design and the basic building blocks used in digital systems, as well as introducing applications of digital integrated circuits. Topics include Numbering systems (binary & hexadecimal), Boolean algebra and digital logic theory, simple logic circuits, combinational logic, and sequential logic, and applications such as ALU (Arithmetic Logic Units), multiplexers, encoders, counters, and registers. These basic logic units are the main parts of microprocessors. Includes hands-on labs and software designs. (3P)
Prerequisite(s): A grade of C- or better in MATH 1220G or higher
View Course Outcomes

ENGR 140 Introduction to Programming and Embedded Systems 4 Credits (4)
An introduction to programming and to the field of embedded systems. Starting from the basic concepts of programming, this course uses microcontrollers, sensors, motors, and other peripheral devices to support the learning and application of the problem-solving process through embedded systems. This course focuses on reading, writing, debugging, testing, and documenting computer programs. (3+3P)
Prerequisite(s)/Corequisite(s): E T 182 or ENGR 130
View Course Outcomes

ENGR 190 Introduction to Engineering Mathematics 4 Credits (4)
Engineering applications involving involved Math topics most heavily used in first and second-year engineering courses. Topics include engineering applications of algebra, trigonometry, vectors, complex numbers, sinusoids and signals, systems of equations and matrices, derivatives, integrals and differential equations.
Prerequisite(s): A grade of C- or better in MATH 1250G or higher
View Course Outcomes

ENGR 198 Special Topics in Engineering 1-3 Credits
Directed individual study of topics in engineering. Written reports covering work required. Restricted to engineering majors. Graded S/U.
Repeatable: for a maximum of 6 credits
View Course Outcomes

ENGR 217 Manufacturing Processes 3 Credits (3)
An introduction to modern manufacturing processes and their application. Students will be introduced to manufacturing concepts such as traditional and non-traditional machining operations, tooling, material selection, thermal joining, geometric dimensioning & tolerancing, metrology, additive manufacturing, assembly and inspection, g-code, and automated manufacturing using CAM packages.
Prerequisite(s): A grade of C- or better in both, ENGR 1110 and (MATH 1220G or higher)
View Course Outcomes

ENGR 217L Manufacturing Processes Lab 1 Credit (1)
A hands-on application of the concepts introduced in ENGR 217. This lab will expose the students to hands-on exercises and manufacturing methods used in industry. (3P)
Corequisite(s): ENGR 217
View Course Outcomes

ENGR 230 AC Circuit Analysis 4 Credits (4)
This course provides an introduction to Circuit analysis techniques, RLC transients, phasors, filter response, and an introduction to discrete electronic devices. (3P)
Prerequisite(s): A grade of C- or better in both, ENGR 120 and (MATH 1440 or MATH 1521G)
View Course Outcomes

ENGR 233 Engineering Mechanics I 3 Credits (3)
Engineering mechanics using vector methods. Force systems, resultants, equilibrium, distributed forces, area moments, and friction.
Prerequisite(s): A grade of C- or better in ENGR 190 or MATH 1440 or MATH 1521G
Prerequisite(s)/Corequisite(s): PHYS 1310G or PHYS 1230G
View Course Outcomes

ENGR 234 Engineering Mechanics II 3 Credits (3)
Kinetics of particles, kinematics and kinetics rigid bodies, systems of particles, energy and momentum principles, and kinetics of rigid bodies in three dimensions.
Prerequisite(s): A grade of C- or better in M E 236 or C E 233 or ENGR 233
View Course Outcomes

Engineering Technology (E T)

E T 101 Introduction to Engineering Technology and Geomatics 1 Credit (1)
An introduction to geomatics and the various engineering technology disciplines, the engineering approach to problem solving, and the design process. Projects emphasize the importance of teamwork, written & oral communication skills, as well as ethical responsibilities.
View Course Outcomes

E T 104 Soldering Techniques 1 Credit (1)
Fundamentals of soldering, desoldering, and quality inspection of printed circuit boards. (3P)
View Course Outcomes

E T 109 Computer Drafting Fundamentals 3 Credits (3)
Introduction to principles and fundamentals of drafting using both
manual drawing techniques and computer-aided drafting (CAD)
applications. (3+2P)
Repeatable: up to 3 credits
Crosslist: DRFT 109 and C E 109
View Course Outcomes

E T 110 Introduction to 3-D Modeling (Solid Works) 3 Credits (3)
Introduction to SolidWorks, a 3-D modeling software. The foundation for
designing mechanical parts and assemblies. (2+3P)
View Course Outcomes

E T 120 Computation Software 2-3 Credits
The use of spreadsheet software in the field of engineering technology.
View Course Outcomes

E T 125 Introduction to Renewable Energy 3 Credits (3)
Renewable energy systems, including topics in thermal-solar
photovoltaic, wind, geothermal systems, and other current topics.
Theory, practical applications, safety considerations and the economics
of alternative renewable energy systems compared to conventional
systems.
View Course Outcomes

E T 143 Civil/Survey Drafting I 3 Credits (3)
Introduction to drafting in the field of Civil Engineering. Drawings,
projects, and terminologies related to topographic mapping, contour
drawings, plan, and profiles as street/highway layout. (2+2P)
Prerequisite(s): A grade of C- or better in E T 109 or DRFT 109
Repeatable: up to 3 credits
View Course Outcomes

E T 153 Fundamentals of Networking Communications 3 Credits (3)
Introduction to networking basics, including computer hardware and
software, electricity, networking terminology, protocols, LANs, WANs, OSI
model, IP addressing, and design and documentation of basic network
and structure cabling.
View Course Outcomes

E T 154 Construction Methods and Communications 3 Credits (3)
Blueprint reading, specifications, and introduction to materials used in
construction.
View Course Outcomes

E T 155 Network Operating Systems I 3 Credits (3)
Introduction to a computer network operating system. (3+1P).
Prerequisite(s): E T 120 or E T 122
View Course Outcomes

E T 156 Introduction to Information Security 2 Credits (2)
This course introduces information security terminology, historical
evolution of digital security, types of PC and network system
vulnerabilities and types of information loss. In addition, methods of
information protection and integrity, intrusion detection, and recovery of
data are introduced.
Prerequisite(s)/Corequisite(s): E T 120
View Course Outcomes

E T 160 Windows Fundamentals for IET 3 Credits (3)
Fundamental review of the Windows operating system including
installation and upgrades as well as managing applications, files, folders,
devices and maintenance.
View Course Outcomes

E T 182 Digital Logic 2 Credits (2)
The use of truth tables, Boolean equations, and diagrams to define,
simplify, and implement logic-valued functions. (1+2P).
Prerequisite(s): A grade of C- or better in MATH 1220G or higher
View Course Outcomes

E T 183 Applied DC Circuits 3 Credits (3)
Application of Ohm's law, Kirchhoff's laws, Thevenin's, and Norton's
theorems to the analysis of DC passive circuits. Embedded Lab. (2+2P).
Prerequisite(s)/Corequisite(s): MATH 1220G
View Course Outcomes

E T 183L Applied DC Circuits Lab 1 Credit (1)
DC applied circuits lab. (2P).
Corequisite(s): E T 183
View Course Outcomes

E T 184 Applied AC Circuits 1-4 Credits
Application of circuit laws and theorems to analysis of AC passive
circuits. Resonant circuit, polyphase circuit and magnetic circuit topics
are introduced. Embedded Lab. (2+2P).
Prerequisite(s): A grade of C- or better in ENGR 120
View Course Outcomes

E T 190 Applied Circuits 4 Credits (4)
Application of Ohm's law, Kirchhoff's laws, and Thevenin's theorems to
the analysis of AC and DC passive circuits. Electronic circuit topics are
introduced. Embedded lab. (3+2P)
Prerequisite(s)/Corequisite(s): A grade of C- or better in MATH 1250G or
higher
Repeatable: up to 4 credits
View Course Outcomes

E T 191 Applied Circuits Laboratory 1 Credit (1)
Applied Circuits Lab. (2P)
View Course Outcomes

E T 200 Special Topics 1-6 Credits
Directed study or project.
Repeatable: for a maximum of 6 credits
View Course Outcomes

E T 210 Intermediate 3-D Modeling (Solid Works) 3 Credits (3)
Intermediate 3-D modeling. Applied modeling of techniques to prepare for
SolidWorks certification (CSWA).
Prerequisite(s): A grade of C- or better in ENGR 110
View Course Outcomes

E T 217 Manufacturing Processes 3 Credits (3)
Introduction to manufacturing and processing, including: casting,
forming, and machining. Emphasis on creating products with the
appropriate techniques.
Prerequisite(s): E T 110 and MATH 1220G
Crosslist: I E 217
View Course Outcomes

E T 217L Manufacturing Processes Lab 1 Credit (1)
Hands-on laboratory in machine shop to apply topics from E T 217,
including: casting, forming, and machining. (3P)
Corequisite(s): E T 217
View Course Outcomes

E T 220 Internship 1-6 Credits
Internship requiring an approved number of hours of varied and progressive experience in the field of study. The scope and other requirements of the internship are stated in an individualized syllabus and through a memorandum of understanding between the faculty mentor and the industry partner.
Prerequisite(s): E T 283
Repeatable: up to 6 credits
View Course Outcomes

E T 240 Applied Statics 3 Credits (3)
Fundamental topics of applied statics, including force system analysis, equilibrium, free body diagrams, methods of joints and sections, distributed loads, friction, centroids, area moments, and shear and moment diagrams.
Prerequisite(s): PHYS 1230G or PHYS 1310G
Prerequisite(s)/Corequisite(s): MATH 1430G or MATH 1511G
View Course Outcomes

E T 241 Applied Dynamics 3 Credits (3)
The foundation for understanding particles and bodies in motion and the forces involved, including: projectile motion, Newton's Laws of Motion, conservation of energy, and impulse and momentum.
Prerequisite(s): A grade of C- or better in either E T 240 or ENGR 233
Prerequisite(s)/Corequisite(s): (MATH 1440 or MATH 1521G or MATH 1521H)
View Course Outcomes

E T 246 Electronic Devices I 4 Credits (4)
Solid-state devices including diodes, bipolar-transistors, and field effect transistors. Use of these devices in rectifier circuits, small signal and power amplifiers. (3+3P)
Prerequisite(s): A grade of C- or better in one of the following: E T 190 or E T 184 or ENGR 120
View Course Outcomes

E T 253 Networking Operating Systems II 3 Credits (3)
Introduction to a computer network operating system. (3+3P)
Prerequisite(s): E T 120 and E T 153
View Course Outcomes

E T 254 Concrete Technology 3 Credits (3)
Fundamentals of aggregates, Portland cement, and asphalt used in design and construction. (2+2P)
View Course Outcomes

E T 255 Linux System Administration 3 Credits (3)
Operating systems applications and interfacing with an introduction to systems administration. Topics include Shell Programming, Programming Tools, Database Management, System Backups, Security, Setup and Maintenance of Linux Servers.
View Course Outcomes

E T 256 Networking Operating Systems III 3 Credits (3)
Introduction to a computer network operating system. (3+1P)
Prerequisite(s): E T 253
View Course Outcomes

E T 262 Software Technology I 3 Credits (3)
An introduction to computer programming concepts as applied to engineering technology. Includes basic logic design, algorithm development, debugging and documentation. History and use of computers and their impact on society. (2+2P)
Prerequisite(s)/Corequisite(s): (E T 182 or ENGR 130) or (MATH 1250G or MATH 1430G)
View Course Outcomes

E T 272 Electronic Devices II 4 Credits (4)
Operational amplifiers, positive and negative feedback, computer aided circuit analysis. In addition circuits include integrator, differentiators and phase shift networks. (3+3P).
Prerequisite(s): A grade of C- or better in E T 246
Prerequisite(s)/Corequisite(s): MATH 1435 or MATH 1511G
View Course Outcomes

E T 273 Advanced Networking Communications 4 Credits (4)
Explores advanced networking communications to include Wireless Networking, Virtualization and Cloud Computing, Subnets and VLANs, Network Risk Management, Network Security Design, Network Performance, and WANS. The course covers the examination objectives and detailed preparation for students to take the CompTIA Network+ exam. (2+4P)
Prerequisite(s): E T 153
View Course Outcomes

E T 276 Electronic Communications 3 Credits (3)
Antennas, transmission devices, A-M and F-M transmission and detection, pulse systems, microwave systems. (2+2P)
Prerequisite(s): E T 246
View Course Outcomes

E T 280 Web Design and Multimedia 3 Credits (3)
Introduction to front-end web development including webpage design, structure, layout, positioning, responsiveness, and foundational layers of how the web works. Video, audio, and other digital presentation tools are covered.
View Course Outcomes

E T 282 Digital Electronics 4 Credits (4)
Applications of digital integrated circuits, multiplexers, counters, arithmetic circuits, and microprocessors. (3+3P).
Prerequisite(s): E T 182
Prerequisite(s)/Corequisite(s): (E T 190 or E T 184)
View Course Outcomes

E T 283 Hardware PC Maintenance 3 Credits (3)
Installing, configuring, troubleshooting, and maintaining personal computer hardware components. (3+1P)
Prerequisite(s): E T 120
View Course Outcomes

E T 284 Software PC Maintenance 3 Credits (3)
Installing, configuring, troubleshooting, and maintaining personal computer operating systems. (3+1P)
Prerequisite(s): E T 120
View Course Outcomes

E T 285 Advanced Information Security 3 Credits (3)
The course covers detailed analysis of network security, including security operations and policy adherence; internal and external vulnerabilities; methods of identifying, controlling and managing system access, and the protection of system information.
Prerequisite(s): E T 156
Prerequisite(s)/Corequisite(s): E T 283
View Course Outcomes

E T 286 Information Security Certification Preparation 4 Credits (4)
The course covers the examination objectives and detailed preparation for a certification in information security.
Prerequisite(s): E T 285
View Course Outcomes

E T 290 Networking Wireless Communication 3 Credits (3)
This course provides an introduction to wireless networking and communications. Some of the topics covered are protocols, transmission methods, and IEEE 802.11 standards. Wireless LAN (WLAN) fundamentals, devices, and security, cellular telephony, broadband, and satellite communications. (3+1P)
Prerequisite(s): E T 273
View Course Outcomes

E T 291 PC Forensics and Investigation 3 Credits (3)
Introduction to computer forensics and investigative fundamentals. Topics include understanding computer forensic and investigation law and requirements, processing crime and incident scenes, and the extraction, preservation, analysis and presentation of computer-related evidence.
Prerequisite(s): E T 120 or E T 122
View Course Outcomes

English (ENGL)

ENGL 1110G Composition I 4 Credits (4)
In this course, students will read, write, and think about a variety of issues and texts. They will develop reading and writing skills that will help with the writing required in their fields of study and other personal and professional contexts. Students will learn to analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading and writing. They will also gain an understanding of how writing and other modes of communication work together for rhetorical purposes. Students will learn to analyze the rhetorical context of any writing task and compose with purpose, audience, and genre in mind. Students will reflect on their own writing processes, learn to workshop drafts with other writers, and practice techniques for writing, revising, and editing.
Prerequisite(s): ACT standard score in English of 16 or higher, or an Accuplacer score 250 or higher, or an SAT score of 430-579 or higher or CCDE 110N with C or higher
View Course Outcomes

ENGL 1110H Composition I Honors 4 Credits (4)
In this course, students will read, write, and think about a variety of issues and texts. They will develop reading and writing skills that will help with the writing required in their fields of study and other personal and professional contexts. Students will learn to analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading and writing. They will also gain an understanding of how writing and other modes of communication work together for rhetorical purposes. Students will learn to analyze the rhetorical context of any writing task and compose with purpose, audience, and genre in mind. Students will reflect on their own writing processes, learn to workshop drafts with other writers, and practice techniques for writing, revising, and editing. Individualized assignments and independent study.
Prerequisite(s): ACT standard English score of 25 or higher, or an SAT score of 550 or higher
View Course Outcomes

ENGL 1120 Composition II 2 Credits (2)
In this course, students will explore argument in multiple genres. Research and writing practices emphasize summary, analysis, evaluation, and integration of secondary sources. Students will analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading, writing, and research. Students will sharpen their understanding of how writing and other modes of communication work together for rhetorical purposes. The emphasis of this course will be on research methods.
Prerequisite(s): successful completion of ENGL 1110G or ENGL 1110H
Learning Outcomes
1. Analyze the rhetorical situation for purpose, main ideas, support, audience, and organizational strategies in a variety of genres.
2. Employ writing processes such as planning, organizing, composing, and revising.
3. Use a variety of research methods to gather appropriate, credible information.
4. Evaluate sources, claims, and evidence for their relevance, credibility, and purpose.
5. Quote, paraphrase, and summarize sources ethically, citing and documenting them appropriately.
6. Integrate information from sources to effectively support claims as well as other purposes (to provide background information, evidence/examples, illustrate an alternative view, etc.).
7. Use an appropriate voice (including syntax and word choice).

View Course Outcomes

ENGL 1410G Introduction to Literature 3 Credits (3)
In this course, students will examine a variety of literary genres, including fiction, poetry, and drama. Students will identify common literary elements in each genre, understanding how specific elements influence meaning.
View Course Outcomes

ENGL 2130G Advanced Composition 3 Credits (3)
This course is for students who are striving for fluency, maturity, clarity and significance in their writing. It is an intermediate writing course that builds on and refines writing skills acquired in previous courses. It focuses on non-fiction writing for the professions, business, science, technical fields, academe and/or popular press. Short works of master writers are studied for ideas, style and structure.
View Course Outcomes

ENGL 2210G Professional & Technical Communication 3 Credits (3)
Professional and Technical Communication will introduce students to the different types of documents and correspondence that they will create in their professional careers. This course emphasizes the importance of audience, document design, and the use of technology in designing, developing, and delivering documents. This course will provide students with experience in professional correspondence and communicating technical information to a non-technical audience.
Prerequisite(s): Grade of C- or better in ENGL 1110G or ENGL 1110H
View Course Outcomes

ENGL 2210H Professional and Technical Communication Honors 3 Credits (3)
Professional and Technical Communication writing for Honors students will introduce students to the different types of documents and correspondence that they will create in their professional careers. This course emphasizes the importance of audience, document design, and the use of technology in designing, developing, and delivering documents. This course will provide students with experience in professional correspondence and communicating technical information to a non-technical audience. 3.5 GPA is also required.
Prerequisite(s): grade of C- or better in ENGL 1110G or the equivalent; approval of the honors college
View Course Outcomes

ENGL 2215G Advanced Technical and Professional Communication 3 Credits (3)
Theory and practice of writing in technical and professional fields, individualized to each student's field. Emphasizes efficient writing processes and effective written products. Repeatable: up to 3 credits.
View Course Outcomes

ENGL 2221G Writing in the Humanities and Social Science 3 Credits (3)
Theory and practice of writing in technical and professional fields, individualized to each student's field. Emphasizes efficient writing processes and effective written products. Repeatable: up to 3 credits.
Prerequisite(s): Grade of C- or better in ENGL 1110G or ENGL 1110H
View Course Outcomes

ENGL 2280 History of Argument 3 Credits (3)
Investigates the major figures and movements in rhetoric from the classical period to modern rhetorical theory, examining relations between rhetorical teaching and practice, culture, epistemology, and ideology.
Prerequisite(s): ENGL 1110G, or ENGL 1110GH
Learning Outcomes
1. Understand how rhetoric, argument, and persuasion work. Become familiar with the key terms and various contexts in which rhetoric, argument, and persuasion function and the contingencies that influence their use and effectiveness;
2. be familiar with the broad history and major figures of western rhetoric;
3. apply a number of approaches used to analyze and construct/ deconstruct rhetorical arguments, including (but not limited to) Aristotelian appeals and commonplaces, stasis theory, toulmin analysis, pentadic/dramatistic analysis, fallacy analysis, and Rogerian analysis;
4. complete an analysis as well as design and present a project regarding a contemporary issue or concern about which you feel deep passion and commitment; and
5. Improve general critical thinking and communication skills, both oral and written.

View Course Outcomes

ENGL 2310G Introduction to Creative Writing 3 Credits (3)
Theory and practice of writing in technical and professional fields, individualized to each student's field. Emphasizes efficient writing processes and effective written products. Repeatable: up to 3 credits.
Prerequisite(s): ENGL 1110G or ENGL 1110H
View Course Outcomes

ENGL 2381 Script Development and Storyboarding 3 Credits (3)
Examines effective writing principles for creating storyboards that communicate the overall picture of a project, timing, scene complexity, emotion and resource requirements.Crosslist: FDMA 2381.
Learning Outcomes
1. develop a story idea into a complete storyboard
2. describe and visualize the creative aspects of a media project from conception to completion
3. write a scene in the professional script format
4. deliver a professional verbal and visual presentation of a story idea to an audience
5. the ability to conceive, illustrate and plan a visual project
6. proficiency in oral, written, and visual communication via storyboarding, script writing and verbal presentations

View Course Outcomes

ENGL 2382 Narrative: Principles of Story Across the Media 3 Credits (3)
Examines the various strategies of written and visual storytelling, narrative structure and its principal components (plot, theme, character, imagery, symbolism, point of view) with an attempt to connect them to elements of contemporary forms of media expression, including screenwriting, playwriting, writing for documentaries and animation, etc.Crosslist: FDMA 2382
Learning Outcomes
1. Identify use the building blocks of storytelling: plot, theme, character, imagery,
2. Symbolism and point of view
3. Develop these building blocks into a cohesive narrative within a written document
4. Effectively communicate in different written formats
5. Create design documents for varied genres of media: narrative short, documentary,
6. Animation, commercial/industrial video, computer game
7. Describe how a written narrative can be translated into a visual medium. Course competencies
8. Demonstrate the ability to identify and use the building blocks of storytelling: Plot, theme, character, imagery, symbolism and point of view
9. Demonstrate how these building blocks work together to create a cohesive narrative within a written document
10. Demonstrate competency in effective written communication
11. Apply the elements of storytelling in creating design documents for varied formats of media: narrative short, documentary, animation, commercial/industrial video, computer game
12. Demonstrate the understanding of how a written narrative can be translated into a visual medium.

View Course Outcomes

ENGL 2520G Film as Literature 3 Credits (3)
The purpose of this course is to teach students how to analyze film as a visual text. Students will learn to analyze films, film techniques, eras, and genres. Students will also identify significant trends and developments in film-making, examining the ways in which film reflects and creates cultural trends and values. (3+3P)
View Course Outcomes

ENGL 2521 The Bible as Literature 3 Credits (3)
Develops informed readings of Hebrew and Christian scriptures. Emphasizes understanding Biblical literary forms, techniques, themes; historical, cultural contexts for interpretation; authorship, composition, audience for individual books; development of Biblical canon.
Learning Outcomes
1. Develop and articulate historically informed and textually supported arguments regarding the form and meaning of biblical texts
2. Express arguments and explication in clear, organized,
3. Understand the Jewish and Christian scriptures as cultural artifacts, using some fundamental techniques of literary analysis and interpretation, especially: thematic interpretation, stylistic analysis, narrative analysis, poetics, and the rhetorical analysis of figurative language.
4. Use socio-historically informed interpretive methods focused on these fundamental contextual questions : 1) who probably wrote and edited these texts, 2) why and how they most likely did so, 3) how their earliest audiences probably responded to them, and 4) why and how they were later combined to form the canonical Jewish and Christian bibles read today.
5. Know in detail substantial selections of representative, influential, and historically informative biblical texts
6. Distinguish literary critical and historical analysis of the Bible from those based on faith, tradition, authority, and theology
7. Recognize, understand, and analyze the forms, genres, and techniques used by biblical authors
8. Become familiar with and be able to use essential knowledge of the historical, cultural, and geographical contexts of Biblical writing
9. Learn how evaluate texts as historical documents, as well as how doing so relates to and differs from literary critical analysis and interpretation 1
10. Become familiar with common and influential scholarly, critical, and aesthetic ways of reading Biblical texts from a contemporary perspective 1
11. Understand the cultural influence of the Bible and its relevance for other areas of scholarly and artistic work

View Course Outcomes

ENGL 2610 American Literature I 3 Credits (3)
This course surveys American literature from the colonial period to the mid-nineteenth century. This course provides students with the contexts and documents necessary to understand the origins of American Literature and the aesthetic, cultural, and ideological debates central to early American culture.
Learning Outcomes
1. Recognize the traditions of American literature and their connection to issues of culture, race, class, and gender.
2. Demonstrate familiarity with a variety of major works by American authors.
3. Explore the various influences and sources of American literature.
4. Apply effective analytic and interpretive strategies to American literary works using academic conventions of citation and style.

View Course Outcomes

ENGL 2620 American Literature II 3 Credits (3)
This course surveys American literature from the mid-nineteenth century to the contemporary period. This course provides students with the contexts and documents necessary to understand American Literature and the aesthetic, cultural, and ideological debates central to American culture.
Learning Outcomes
1. Recognize the traditions of American literature and their connection to issues of culture, race, class, and gender.
2. Demonstrate familiarity with a variety of major works by American authors.
3. Explore the various influences and sources of American literature.
4. Apply effective analytic and interpretive strategies to American literary works using academic conventions of citation and style.

View Course Outcomes

ENGL 2630 British Literature I 3 Credits (3)
This course offers a study of British literature from its origins in Old English to the 18th century. This survey covers specific literary works— essays, short stories, novels, poems, and plays—as well as the social, cultural, and intellectual currents that influenced the literature.
Learning Outcomes
1. Read and discuss representative works of British writers from its origins in Old English to the 18th century to understand cultural and historical movements which influenced those writers and their works.
2. Identify the characteristics of various British literary genres, such as the essay, novel, short story, poetry, and dramatic literature.
3. Apply effective analytic and interpretive strategies to British literary works using academic conventions of citation and style.

View Course Outcomes

ENGL 2640 British Literature II 3 Credits (3)
This course offers a study of British literature from the 18th century to the present. This survey covers specific literary works—short stories, novels, poems, and plays—as well as the social, cultural, and intellectual currents that influenced the literature.
Learning Outcomes
1. Read and discuss representative works of British writers from the 18th century to the present to understand cultural and historical movements, which influenced those writers, and their works.
2. Identify the characteristics of various British literary genres, such as the essay, novel, short story, poetry, and dramatic literature.
3. Apply effective analytic and interpretive strategies to British literary works using academic conventions of citation and style.

View Course Outcomes

ENGL 2650G World Literature I 3 Credits (3)
In this course, students will read representative world masterpieces from ancient, medieval and Renaissance literature. Students will broaden their understanding of literature and their knowledge of other cultures through exploration of how literature represents individuals, ideas and customs of the world cultures. The course focuses strongly on examining the ways literature and culture intersect and define each other.
View Course Outcomes

ENGL 2675 Transatlantic Literatures 3 Credits (3)

This course tracks the production, circulation, and reception of literary works in transatlantic contexts over at least 150 years. Students examine a variety of documents to map transformations in form, genre, and medium across historical and geographic contexts. Students consider how colonization, exile, displacement, and migration have track the production, circulation, and reception of literary works in transatlantic contexts over at least 150 years reinforced or contested national literary traditions.

Learning Outcomes

1. Track the production, circulation, and reception of literary works in transatlantic contexts over at least 150 years

2. Identify and analyze a variety of documents to map transformations in form, genre, and medium across historical and geographic contexts

3. Explain how colonization, exile, displacement, and migration have reinforced or contested national literary traditions.

View Course Outcomes

ENGL 2996 Topics in English 1-3 Credits

Emphasis on a literary and/or writing subject chosen for the semester. Repeatable: for a unlimited credit under different subtitles.
View Course Outcomes

Entology/Plant Pathology/Weed Science (EPWS)

EPWS 1110G Applied Biology 3 Credits (3)

Introduction to applied biology and ecology focusing on insects, plants and pathogens in natural areas, corps and urban settings. EPWS 100L is strongly recommended to take in the same semester. Repeatable: up to 3 credits.
View Course Outcomes

EPWS 1110L Applied Biology Laboratory 1 Credit (1)

Study of applied biology and ecology of insects, plants and pathogens in natural areas, crops, and urban settings. EPWS 100 strongly recommended to take in the same semester. Repeatable: up to 1 credits.

Learning Outcomes

1. Students will learn about the Department of Entomology Plant Pathology and Weed Science and will have the opportunity to meet the Las Cruces-based faculty in the department.

2. By the end of this course students will have gained a broad understanding of the pests in a wide range of systems, their interactions with other organisms, and the methods available to minimize the influence of pests on target commodities.

View Course Outcomes

EPWS 2996 Topics in Entology/Plant Pathology/Weed Science 1-4 Credits

Special subjects and credits to be announced in the Schedule of Classes. Maximum of 4 credits per semester and a grand total of 9 credits.
View Course Outcomes

Entrepreneurship (ENTR)

ENTR 1110 Entrepreneurship 3 Credits (3)

Introduces students to the concept of entrepreneurship and to the process of business startups.

Learning Outcomes

1. Identify the unique characteristics of an entrepreneur.

2. Identify opportunities and conduct needs analysis.

3. Develop value proposition/market fit for proposed products and services.

4. Develop an appropriate business model.

5. Identify availability of necessary resources.

View Course Outcomes

Environmental Science (ENVS)

ENVS 1110G Environmental Science I 4 Credits (4)

Introduction to environmental science as related to the protection, remediation, and sustainability of land, air, water, and food resources. Emphasis on the use of the scientific method and critical thinking skills in understanding environmental issues. (3+2P)
View Course Outcomes

ENVS 2111 Environmental Engineering and Science 3 Credits (3)

Principles in environmental engineering and science: physical chemical systems and biological processes as applied to pollution control. Crosslist: C E 256..

Prerequisite(s): CHEM 1215G and MATH 1511G or ENGR 190

Learning Outcomes

1. To understand the nature of water quality parameters in the context of Civil Engineering and Environmental Science (Water Treatment/ Wastewater Treatment/Environmental Science).

2. To learn to apply engineering and scientific solutions to water quality problems.

3. To understand environmental regulations and their consequences on the design of pollution control systems.

View Course Outcomes

ENVS 2111L Environmental Engineering and Science Laboratory 1 Credit (1)

Laboratory experiments associated with the material presented in E S 2111.

Corequisite(s): ENVS 2111

Crosslist: C E 256L.Crosslist: C E 256 L

Learning Outcomes

1. List typical analyses commonly performed to evaluate physical, chemical, and microbiological parameters used to describe water quality.

2. Follow experimental procedures listed in the class laboratory manual, or other publications such as Standards Methods, to perform common water quality analyses.

3. Evaluate, analyze, and discuss experimental results and present the conclusions in the form of a professional report.

View Course Outcomes

Family and Child Studies (FCST)

FCST 1130 Interpersonal Skills in Intimate Relationships 3 Credits (3)
Developing social skills within friendships, dating relationships, marriage, parenting, and families. Repeatable: up to 3 credits.
Learning Outcomes
1. To understand several theories that explain why some people have healthy interpersonal relationships while others do not.
2. To gain insight about one's self.
3. To learn and improve upon selected relationship skills that improve quality of life.
4. To learn skills that improve interpersonal relationships.

View Course Outcomes

FCST 2110 Infancy Through Middle Childhood in the Family 3 Credits (3)
This course discusses research and theory relevant to prenatal development and the physical, mental, and socio- emotional development of the child from birth through age 12. This developmental period will be examined across different cultures and in real world contexts. Attitudes, knowledge, and skills needed for working with young children and their families will be introduced.
Learning Outcomes
1. Evaluate how genes and the environment interact to impact human development from prenatal stages through age 1
2. Assess the effects of environmental influences on the developing fetus.
3. Discuss the capacities of newborn development through age 1
4. Evaluate how individuals and couples change during the transition to parenthood.
5. Analyze the physical, cognitive, and social-emotional development of the child from birth through age 1

View Course Outcomes

FCST 2135 Adolescent Development and the Family 3 Credits (3)
Research and theory relevant to the physical, mental, social, and emotional development of the children ages 12 to 18. Attitudes, knowledge, and skills related to working with adolescents in the family system. Observation in a variety of settings may be required.
Learning Outcomes
1. Compare adolescents of today with adolescents of the past.
2. Describe the physical, cognitive, and psychosocial development of the adolescent in the family system and evaluate individual differences in development.
3. Compare and contrast ways in which culture impacts adolescent development.
4. Assess effective parenting strategies with adolescents.
5. Analyze the influence of family, peers, school, and work on adolescent development.

View Course Outcomes

FCST 2140 Adult Development and Aging 3 Credits (3)
Research and theory related to the physical, mental, social, and emotional development of older adults. Attitudes, knowledge, and skills related to working with older adults in the family system, including normative, and nonnormative transitions.
Learning Outcomes
1. Compare and contrast theories of adult development and aging and apply theories to adult behavior.
2. Distinguish the similarities and differences of physical, emotional, cognitive, and psychosocial aspects of adult development.
3. Describe multicultural factors that impact attitudes toward aging and coping with aging family members.
4. Evaluate ways in which special issues (including but limited to Alzheimer's Disease, heart disease, end of life issues) impact aging.
5. Devise a conceptualization of one's own perspective in dealing with aging and aging family members.

View Course Outcomes

Family and Consumer Sciences (FCSC)

FCSC 2250 Overview of Family and Consumer Sciences Teaching 3 Credits (3)
Overview of planning and teaching skills. Supervised experiences in observing and directing the learning of secondary family and consumer sciences students. Philosophy and history of the profession.
View Course Outcomes

FCSC 2330 Housing and Interior Design 3 Credits (3)
Investigation of types of housing and factors impacting housing decisions for families. Selection, planning, and arrangement of interior components of homes to meet the needs of the family.
View Course Outcomes

Film & Digital Media Arts (FDMA)

FDMA 1110 Film History 3 Credits (3)
This course surveys the history of cinema - investigating the process by which the original "cinema of attractions" evolved into a globally dominant form of visual storytelling. We will explore the development of cinema both as an art form and as an industry, and consider the technological, economic, cultural factors, and key international movements that shape it.
Learning Outcomes
1. Develop appreciation for the history of cinema.
2. Develop knowledge of the key eras in the history of US cinema.
3. Learn the characteristics of major movements in international cinema.
4. Explain technological innovations that were necessary for, and integral to, the advancement of cinema.
5. Recognize the various elements that go into telling a story in cinema.

View Course Outcomes

FDMA 1120 Desktop Publishing I 3 Credits (3)

This course is designed to teach introductory skills for designing and creating publications and presentations with layout software. The course will focus on graphics and typographic design, fonts, and other skills for print and web publishing. (2+2P)

Learning Outcomes

1. Demonstrate knowledge of fundamental features and navigation of desktop publishing software.

2. Combine text and images for effective communication.

3. Develop a balanced composition through use of color, contrast, and alignment.

4. Place images within a composition and wrap around text.

5. Produce documents with professional layout and typography skills.

6. Create attractive and effective designs.

7. Combine knowledge of typography, images, and design principles to produce professional print and web media.

8. Create or add to a professional design portfolio for future use.

View Course Outcomes

FDMA 1210 Digital Video Production I 3 Credits (3)

An introduction to digital video production. Students learn camera operation, lights and audio equipment. Hands-on production is completed in the studio and on location. (2+4P).

Learning Outcomes

1. Plan and produce a digital video project

2. Apply post-production workflow

3. Work in team and as individual to complete digital video projects.

View Course Outcomes

FDMA 1220 Introduction to Digital Video Editing 3 Credits (3)

In this course, students learn the basics of the post-production process for non-linear video editing. Students work with multiple video formats and create short movies for multiple distribution platforms. Skills include media management and professional terminology.

Learning Outcomes

1. Define concepts related to digital video editing.

2. Use non-linear video editing software for editing a short film

3. Enhance storytelling through the use of continuity, timing, cutaways, intercutting, compositing, transitioning, jump cutting, montaging and animating.

4. Use text, titles, transitions, video effects, sound effects, dialogue, and visual assets for digital video editing.

View Course Outcomes

FDMA 1260 Introduction to Digital Media 1-3 Credits

Explores concepts of how text, graphics, sound, images and video come together in a digital media program and researching new trends and current issues related to media applications and design. Students will be involved in teamwork, communication and workplace interaction simulation. Repeatable: up to 12 credits.

Learning Outcomes

1. Describe and identify the principal components and terminology of digital media.

2. Analyze and examine the use of digital media as a communication tool

3. Plan and implement a digital media project

4. Critique professional digital media products.

5. Create projects using a variety of digital media tools

6. Demonstrate a working knowledge of copyright and usage rights

7. Present completed projects in a professional manner for critique.

View Course Outcomes

FDMA 1360 Web Design I 3 Credits (3)

This course provides an introduction to web development techniques, theory, and design. Students will learn HTML, CSS application, and strategies for effective site navigation and design, along with industry standard web editing software to develop various websites. (2+2P)Repeatable: up to 6 credits.

Prerequisite(s): ARTS 1520 OR FDMA 1515

Learning Outcomes

1. Acquire and utilize web design terminology.

2. Create basic web pages using HTML.

3. Demonstrate how to use industry-standard, web editing software.

4. Design professional pages that are easy to navigate and quick to load.

5. Develop a basic comprehension of CSS

6. Prepare and export a variety of graphics to be used online.

7. Compare and contrast designing for web media vs. print media.

8. Analyze the importance of web presence in today's business/social climate.

View Course Outcomes

FDMA 1410 Audio Production I 3 Credits (3)

Students will learn about and apply essential tools and techniques in analog and digital audio production. Topics include acoustic science, microphones, recording and mixing techniques, analog and digital audio hardware and software, including, multi-track, computer-based recording and editing systems. (2+2P)

Prerequisite(s): FDMA 1210 and FDMA 2410

Learning Outcomes

1. Apply tools and techniques in analog and digital audio production

2. Illustrate the fundamentals of acoustic science.

3. Model professional behavior used in audio recording.

View Course Outcomes

FDMA 1415 Principles of Sound 3 Credits (3)
The creation of a professional quality original media soundtrack is possible for relatively low production/post production cost. This class is designed to give the student an overview of creating sound for a variety of digital media. Topics include acoustic principles, sound design, audio hardware, recording techniques; and editing, processing, and multi-track mixing, using software applications. (2+2P)
Prerequisite(s)/Corequisite(s): FDMA 1220
Learning Outcomes
1. Record and edit wild sound effects and synced dialogue
2. Discover, upload, and edit on-line music, ambience and sound effect loops
3. Implement audio design theories
4. Create an aesthetic soundtrack which incorporates multiple elements and dimensions
5. Design, edit, process, mix and master a synced multi-track soundtrack
6. Demonstrate capable use of digital audio production and post-production workflow
7. Produce short audio projects which meet media industry technical standards.

View Course Outcomes

FDMA 1510 Introduction to 3D Animation 3 Credits (3)
This course provides an overview of 3D animation production processes. Students will be introduced to basic story development and the creation of computer-generated assets and cinematic sequences. The course will survey specialty areas of digital animation and various software and techniques applied in entertainment and information media. Students will review and critique others animation, as well as plan and produce original animation for review by classmates and as part of a CGI demo reel.
Prerequisite(s): FDMA 2382 or FDMA 2381
Learning Outcomes
1. Demonstrate a fundamental understanding of 3D animation history and principles.
2. Analyze animation work of other artists.
3. Appropriately utilize the various media technologies for digital 3D animation.
4. Demonstrate and apply basic techniques of digital 3D animation.
5. Demonstrate and apply basic processes of creating CGI for a narrative.
6. Apply some basic strategies for developing and creating a story visually, and create original animations.
7. Present original animations to instructor and classmates for critique.
8. Create a CGI demo reel of work completed during the course.

View Course Outcomes

FDMA 1515 Introduction to Digital Image Editing - Photoshop 3 Credits (3)
In this course, students will learn how to use the tools in Adobe Photoshop to create new images and edit existing images. Tools used will include selections, layers, and adjustments, among other pixel editing tools. Basic composition and output will be emphasized in all projects. (2+2P).Repeatable: for a maximum of 6 credits.
Learning Outcomes
1. Make and refine selections
2. Adjust color and tone in an image
3. Eliminate unwanted objects in an image
4. Apply layers to organize and create effects
5. Create brushes, styles and vector shapes
6. Prepare image for print and screen output
7. Apply masking and layers to non-destructively edit an image
8. Effectively utilize blending modes and layer styles 1
9. Apply adjustment layers 1
10. Apply design principles including typography.

View Course Outcomes

FDMA 1531 Evolution of Electronic Games 3 Credits (3)
Focus on the evolution of video games and how they have shaped mainstream entertainment. (2+2P)Repeatable: up to 6 credits.
View Course Outcomes

FDMA 1535 Introduction to Illustrator 3 Credits (3)
Students receive instruction on vector graphics creation using vector illustration software. The students will create professional-quality artwork for print publishing and multimedia graphics. Instruction includes creating and manipulating basic shapes, drawing with the pen tool, using various brushes, working with type and preparing graphics for web, print, and digital publication. (2+2P).Repeatable: for a maximum of 6 credits.
Learning Outcomes
1. Apply a variety of shape blending options
2. Create and apply new gradients
3. Apply Gradient Meshes and Envelopes
4. Create symbols, brushes and vector shapes
5. Apply Pathfinder® and other effects
6. Effectively utilize the pen tool to draw and edit shapes
7. Effectively utilize Vector tools
8. Prepare image for print and screen output 1
9. Apply clipping masks. 1
10. Prepare image for use in another program 1
11. Apply design principles including typography.

View Course Outcomes

FDMA 1536 Advanced Computer Illustration 3 Credits (3)
Advanced techniques in 2D vector drawing and fundamentals of
3D illustration for use in print, web, and multimedia applications.
(2+2P)Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1535
Learning Outcomes
1. Demonstrate proficiency in using advanced features of Illustrator.
2. Identify and create different illustrator/art styles using advanced techniques for shading, perspective, light, reflection.
3. Produce high quality digital imagery incorporating basic principles of composition.
4. Create a series of illustrations demonstrating a design competency in layout foundation and illustrative moods or client/project based solutions.
5. Create high quality portfolio pieces that demonstrate an advanced knowledge of design, composition and Illustrator techniques.
6. The students will produce finished printed portfolio pieces demonstrating a comprehensive knowledge of typographical, design, illustrative and layout skills.

View Course Outcomes

FDMA 1545 Introduction to Photography & Digital Imaging 3 Credits (3)
This course is a study of the principles and techniques of photography
using digital equipment, and discusses how digital cameras, imaging
editing, and technology have changed the world of photography. Students
will learn about studies in resolution, lighting, software, editing, printing,
and web applications. They will gain fundamental knowledge in the
rapidly expanding technology of photography and imaging, and be able to
incorporate the knowledge into all areas of digital graphics. (2+2P)
Learning Outcomes
1. Exhibit proper usage of the principles and techniques of photography using digital equipment.
2. Utilize features and techniques of a digital camera with proper use of lenses, settings, and flashes.
3. Create photo collections that represent proper use of technical skills.
4. Demonstrate proficiency in planning, lighting, capturing, and distributing photographic projects which show ability to create photographs artistically and to tell a story or express an idea.
5. Utilize appropriate software to create original projects.
6. Demonstrate knowledge in post-production of photos as to sizing, sampling, resolution, and exporting.
7. Produce original projects which respect intellectual property of others.
8. Create a digital portfolio of work completed during the course.

View Course Outcomes

FDMA 1555 Introduction to the Creative Media Industry 3 Credits (3)
This class is an introductory course for students who are beginning
their understanding of Media and how it affects them and our society.
It offers a broad-stroked view of the entire industry including Marketing,
Production, History, Jobs, Design, Architecture, New Media Literacy,
and industry standards. Students will listen to experts in the field, get
involved in open discussions about the industry and use new information
to complete hands-on individual and group assignments.
Learning Outcomes
1. The basic philosophies and methods that guide people working in the Creative Media industry.
2. Knowledge of a wide variety of different jobs, qualifications and paradigms used in the industry.
3. Marketing, Production, Budgets, History, New Media, Inspiration and other aspects of the industry.
4. An accurate view of the Creative Media field.

View Course Outcomes

FDMA 1630 Principles of Design 3 Credits (3)
This course will explore how we see and use visuals to communicate
information. Students will develop critical thinking skills in applying
concepts of basic design principles. Students will apply the concepts
with hands-on and analysis assignments. These concepts will then be
applied to design for advertising, print, digital media, and web design. The
business of design will also be covered with emphasis on client relations
and networking. (2+2P).
Prerequisite(s): FDMA 1535
Learning Outcomes
1. Practice Creativity
2. Plan a Design project
3. Demonstrate the effective use of Emphasis Contrast
4. Demonstrate the effective use of Balance and Alignment
5. Demonstrate the effective use of Harmony and Repetition
6. Demonstrate the effective use of Flow, Movement, and Rhythm
7. Demonstrate the effective use of Simplicity and Economy
8. Effectively apply basic color theory
9. Demonstrate the effective use of Typography principles 1
10. Apply design principles to Screen Print Projects 1
11. Develop client relations

View Course Outcomes

FDMA 1710 2D Animation 3 Credits (3)
Students will learn the basics of digital 2D animation by working through
a variety of exercises, creating an original storyboard, and animating five
or more shots utilizing industry standard software. (2+2P).
Prerequisite(s): FDMA 1535
Learning Outcomes
1. Be able to correctly storyboard an animation scene
2. Define and demonstrate basic animation terminology and principles.
3. Produce a complete hand drawn animation using industry standard software and processes.

View Course Outcomes

FDMA 1715 2-D Compositing & FX 3 Credits (3)
This course will familiarize students with the process of compositing and creating special effects for animation using industry standard software. Students will learn how to assemble an animated scene and use advanced 3D lighting, spacing, and digital effects to achieve a dynamic, professionally rendered look..
Prerequisite(s): FDMA 2710
Learning Outcomes
1. The goal of this class is for students to learn how to use advanced compositing and effects tools in order to achieve a more dynamic and professional visual look for their animations or motion graphics.
2. By the end of the class, you should be proficient animation compositors that can assemble and synthesize a basic animation into a rendered, visually sophisticated piece.
3. Students who pass this class will have a basic to intermediate knowledge of Adobe After Effects.

View Course Outcomes

FDMA 1720 3D Character Design 3 Credits (3)
Focus on designing a character and then taking that design and building it in 3D using intermediate modeling techniques. (2+4P).Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1510 or FDMA 2530
Learning Outcomes
1. Translate concept art into a low and high resolution 3D model using proper modeling techniques
2. Use Polygon modeling techniques to create a 3D character
3. Layout UVs and utilize Adobe Photoshop to texture a model.

View Course Outcomes

FDMA 1725 3D Shading and Lighting Techniques 3 Credits (3)
Study of various global, scene and character lighting techniques, shading and shadowing, and creating atmospheres and reflections that bring computer generated 3D scenes to life. Examines environmental and studio lighting to bring real life experience into the digital production process.
Learning Outcomes
1. Students will demonstrate visual communication skills through critiques, written explanations, and storyboarding.
2. Students will be able to illustrate ideas.
3. Students will be able to storyboard animation and video projects.
4. Students will be able to create complex lighting situations in a 3d environment.
5. Students will be able to expand expertise in 3d studio as well as Maya.
6. Students will be able to produce original projects that respect intellectual property of others.

View Course Outcomes

FDMA 1996 Topics in Film and Digital Media Arts 1-4 Credits
Specific titles to be announced in the Schedule of Classes. Repeatable: for a maximum of 18 credits.
View Course Outcomes

FDMA 2111 Environmental Scene Design 3 Credits (3)
Modeling design techniques used to create environments and scenes for use in animated films and games. Investigation of both natural and architectural environments to be recreated in the virtual world.
View Course Outcomes

FDMA 2112 Environmental Modeling, Shading and Lighting 3 Credits (3)
Modeling design techniques to create natural and architectural environments to be used for animated films and gaming. Study of various lighting techniques, shading and shadowing.
Learning Outcomes
1. Understand how to model more efficiently.
2. Understand how UV texturing works.
3. Create seamless textures.
4. Model, texture, shade, and light their own object.

View Course Outcomes

FDMA 2120 Film Crew I/Introduction to Film and Media Workflow 9 Credits (9)
An introduction to the film industry. This class teaches film production processes, film crew hierarchy, film production set-safety and etiquette and provides hands-on training in industry standard film production equipment. Students complete the semester by participating as a below-the-line crew member on a short film.
Learning Outcomes
1. Explain film production processes; Interpret call sheets and deal memos, model basic on-set protocols and professional behavior
2. Assist producers and directors in completing a professional film project
3. Work effectively in production crew positions in a group environment.
4. Recognize and articulate specific film production structure, from original concept to final release.

View Course Outcomes

FDMA 2125 Film Crew II 9 Credits (9)
The second of three courses (FDMA 2120, 2125 and 2130) designed to train students to become working members of film crews. It will be taught by working film professionals. Content will be lecture and hands-on. Students complete the semester by working as part of an actual film crew as below-the-line and above-the-line crew members.
Prerequisite(s): FDMA 2120
Learning Outcomes
1. Understand film production processes used to produce a film
2. Manage craft area job functions
3. Model on-set protocols and professional behaviors
4. Assist producers and directors in completing a professional film projects

View Course Outcomes

FDMA 2144 Pre-production Management 3 Credits (3)
Pre-production planning paperwork breakdowns, budgeting, and scheduling; taking a project from start to finish from a producer's standpoint.
Learning Outcomes
1. Demonstrate proficiency in various areas of pre-production
2. Create a script breakdown, budget, production and post-production schedule, and management plan and timeline that are technically sound.
3. Use features of pre-production and project management software, to foresee and plan the pre- production, production, and post-production stages of a project
4. Demonstrate understanding of the processes of supporting and managing a project, through the pre- production, production, and post-production stages to completion
5. Work collaboratively and communicate effectively with the pre-production and management teams to produce the desired finished project.

View Course Outcomes

FDMA 2150 Desktop Publishing II 3 Credits (3)
This class will enhance and build upon student layout/design skills developed in the Introduction to Desktop Publishing course, incorporating intermediate to advanced concepts in typography and layout design. Upon completion of this course, students will be able to use page layout software to prepare a variety of documents for presentation and critique, including newsletters, instructional flyers, and other complex design/ typographic pieces. (2+2P).Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1120
Learning Outcomes
1. Build upon knowledge of design and design terminology.
2. Exhibit intermediate to advanced design principles using type, layout, and color.
3. Demonstrate skill in intermediate to advanced concepts and features of page layout software.
4. Exhibit knowledge of styles, tables, images and clipping paths and interactive documents as well as printing preparations and procedures.
5. Create layouts for print, web, and other media that demonstrate an intermediate to advanced knowledge in typography and layout design.
6. Format and produce newsletters and instructional flyers, as well as larger, complex projects such as packaging mechanicals, multiple master page documents, and books.
7. Assess works of graphic design for quality and effectiveness.
8. Utilize produced material to create or add to a design portfolio for future use.

View Course Outcomes

FDMA 2210 Digital Video Production II 3 Credits (3)
Advanced techniques of the tools and application of professional film making. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1210
Learning Outcomes
1. Demonstrate the ability to produce and manage a video project. a. Produce a script, storyboard, and production schedule for a video project designed for a specific audience.
2. Demonstrate proficiency in producing quality digital video footage and audio tracks. a. Shoot to the script and storyboard using a variety of camera and lighting techniques. b. Produce a finished complex sound track including narration, music, and sound effect.
3. Demonstrate ability to produce and edit a professional quality video project. a. Integrate all production aspects of the project including video, audio, graphics, titles, transitions, and effects. Guide the project through the final production stages.
4. Develop competency in digital video distribution using various formats and techniques. a. Distribute project in various formats which could include DVD and web posting.

View Course Outcomes

FDMA 2241 Advanced Camera Techniques 3 Credits (3)
Professional camera techniques and training for electronic news gathering and studio filmmaking. Utilizes high-end handheld shooting techniques, cranes, dollies, and Steadicam training. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1210
Learning Outcomes
1. Students knowledge of high-end video camera operation and features.
2. Students must know all the working features of the video production equipment being used during the course in order to achieve the desired footage as required by the instructor.
3. Demonstrate proficiency in producing quality digital video footage.
4. Individuals must acquire the knowledge of different shooting styles in different productions situations and use those acquired skills to produce the appropriate video footage.
5. Using the proper lighting in different on location shooting styles.
6. Skill of each individual utilizing the usage of high-end camera equipment such as dollies, cranes and Steadicam.
7. Each individual must work as a team player to create professional style video footage.

View Course Outcomes

FDMA 2285 Digital Video Production and Editing II 3 Credits (3)
Advanced features of digital video, audio/music, and titling production software. Included are color correction, vector scopes, motion effects, and advanced editing techniques used by filmmakers. (2+2P).Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1220
Learning Outcomes
  1. Intermediate to advanced video editing
  2. Create short films and training videos
  3. Create TV quality commercials
  4. Direct a news broadcast
  5. Work as a mentor to students on digital media equipment.

View Course Outcomes

FDMA 2287 Digital Design Studio 1-3 Credits
A design studio environment in which students obtain real-world experience while providing service to college and non-profit associations with faculty supervision using a variety of media. Can be used with permission to fulfill cooperative requirement. Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1630 or ARTS 1712
Learning Outcomes
  1. Demonstrate competency in the use of InDesign software.
  2. Create appropriate visual solutions based on target marketing information.
  3. Demonstrate competency in the design and production of advertising and promotional materials.
  4. Present ideas and concepts effectively and competently.
  5. Visually demonstrate design solutions to be used in a portfolio.

View Course Outcomes

FDMA 2310 History of Cinema I 3 Credits (3)
This course surveys the history of cinema - investigating the process by which the original cinema of attractions evolved into a globally dominant form of visual storytelling. We will explore the development of cinema both as an art form and as an industry, and consider the technological, economic, cultural factors, as well as many key international movements that helped shape it.
Learning Outcomes
  1. Gain a greater appreciation for the history of cinema
  2. Develop knowledge of the key eras in the history of U.S. cinema
  3. Learn the characteristics of major movements in international cinema
  4. Understand the various elements that go into telling a story in cinema: screenplay, narrative devices, director, producer, talent, production design, cinematography, editing, sound design
  5. Learn how major genres in U.S. cinema have evolved in the past 100+ years
  6. Gain a basic understanding of the operations and organization of the Hollywood film industry, from the studio system until today
  7. Gain an awareness of the shifts in the film industry that present new opportunities for independent filmmakers
  8. Understand the importance of learning about the history of cinema to the process of becoming a filmmaker
  9. Strengthen public speaking skills.

View Course Outcomes

FDMA 2311 History of Animation 3 Credits (3)
Explores the history of Animation as an art form and industry through readings, screenings, lecture and periodic guest speakers.
Learning Outcomes
  1. To expand your knowledge of the history of animation and its evolution to the modern day.
  2. To expand your ability to view animation critically and to understand its early connections to cartooning as well as its ongoing cultural presence and relevance.
  3. To expand your comfort with accessing information and completing assignments both online and independently. Canvas will be utilized for many of our readings and for some response assignments.

View Course Outcomes

FDMA 2312 History of Media Design 3 Credits (3)
An introduction to the principles of design history and theory within a chronological framework of historical and emerging media.
Learning Outcomes
  1. Introduction to visual communication. a. Defines design media. b. Discuss universal design principles and strengthen student basic design skills.
  2. Historical technological development and design. a. Prehistoric communication b. Beginnings of alphabet and written language c. Movable type and the printing press d. Industrial revolution e. Digital Age f. Designers and Trends
  3. Personalities and their influence and contributions
  4. Identify design styles and discuss the relevance of how design influences: a. Idea generation b. Trend sources c. Influences or appropriation d. Propaganda and advertising

View Course Outcomes

FDMA 2325 Advanced Photoshop 3 Credits (3)
This course expands on the Photoshop skill set to develop proficiency with selections, masking, channels, filters, color correction, painting tools, vector integration, video, special effects, and compositing techniques. The focus is 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 and students develop work suitable for portfolios. (2+2P) Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1515
Learning Outcomes
1. Create effects using advanced blending techniques
2. Effectively utilize advanced masking techniques
3. Refine Selections with advanced techniques
4. Assess Adjust color in an image
5. Utilize advanced photo enhancement techniques
6. Alter images using Photoshop painting techniques
7. Create brush presets
8. Create vector elements with paths
9. Add manipulate type on a path 1
10. Create advanced special effects 1
11. Apply vanishing point warping 1
12. Create a video clip 1
13. Apply color adjustments to video

View Course Outcomes

FDMA 2326 Digital Photography and Imaging II 3 Credits (3)
Provide understanding and skills needed for advanced digital capture, editing, optimizing and manipulating photographic images for print, web and multimedia applications. The course will prepare students to make more advanced technical and more refined aesthetic decisions relative to specific photographic applications. (2+2P)
Prerequisite(s): FDMA 1545
Learning Outcomes
1. Apply proper exposure techniques.
2. Practice effective composition techniques.
3. Demonstrate knowledge of working with Camera RAW files.
4. Demonstrate proper image adjustment and correction techniques.
5. Successfully apply the basics of HDR digital photography.
6. Apply techniques for modifying light.

View Course Outcomes

FDMA 2360 Web Design II 3 Credits (3)
In this course, students will refine their skills in coding and web graphic design as well as be introduced to methods in constructing sites that adhere to the standards of responsive web design. Students will expand their knowledge of HTML and CSS using a code editor, and they will both analyze existing websites and also construct an interactive website. (2+2P).Repeatable: up to 6 credits.
Prerequisite(s): FDMA 1360
Learning Outcomes
1. Plan and produce web design mockups.
2. Demonstrate a proficiency in HTML/CSS coding.
3. Utilize basic web scripts.
4. Integrate animation into web design
5. Create fully functional websites using one or more web editors.
6. Make a website "live."
7. Evaluate web designs for aesthetics and functionality.
8. Demonstrate the utilization of responsive design.

View Course Outcomes

FDMA 2365 Web Design for Small Business 3 Credits (3)
Create and manage well designed online business, and organized web sites using a Content Management System. Repeatable: up to 6 credits. (2+2P)
Prerequisite(s): FDMA 1360
Learning Outcomes
1. using CSS, PHP, HTML, Photoshop, and WordPress.
2. design a complete and fully functional online web business.
3. understand and develop a plan to better manage a web store/ business.
4. review basic design guidelines in preparing a variety of web applications for business.
5. develop technical skills in using various web-based solutions.
6. reinforce your knowledge of web design software.
7. introduce alternate sources of data, communication and financial solutions.

View Course Outcomes

FDMA 2370 Advanced Web Techniques 3 Credits (3)
Creating and managing complex web sites using advanced techniques and tools. Repeatable: up to 6 credits.
Learning Outcomes
1. Create webpages using Hypertext Markup Language (HTML) elements and tags
2. Format webpages using Cascading Style Sheets (CSS)
3. Validate webpage code
4. Apply industry-standard webpage design and organization principles
5. Publish a website.

View Course Outcomes

FDMA 2375 Typography 3 Credits (3)

This course introduces students to the history of typography and its emotive, symbolic and communicative aspects. Students learn how to use type in a creative and aesthetic way and develop an understanding of page composition that incorporates concept and design.Repeatable: May be taken twice.

Learning Outcomes

1. Understand the history of type
2. Use type as a communication tool as well as a design element
3. Understand the relationship between content and format
4. Make informative decisions in typeface selection.

View Course Outcomes

FDMA 2381 Storyboarding 3 Credits (3)

Examines effective writing principles to create storyboards that communicate the overall picture of a project, timing, scene complexity, emotion and resource requirements. Further, the purpose of this course is to introduce students to the principles of visual storytelling in film through the use of the storyboard. In other words, to show how storyboards are critical architectural component of the filmmaking process used as a blueprint (or guide) to communicate the complex elements of a film story. Restricted to: DFM,ANVE, G-CMI majors. Crosslist: ENGL 2381.

Learning Outcomes

1. Learn to conceive and draw original images.
2. Learn to use images to tell a story.
3. Design, develop, and order images (shots) into storyboarded scenes.
4. Understand how storyboarded sequences are a tool in the process of filmmaking.
5. Understand how the storyboard image is translated from the written page.
6. Build scenes from the scripted sequences into a storyboard.

View Course Outcomes

FDMA 2382 Principles of Story Across the Media 3 Credits (3)

The purpose of this course is to help students understand the basic elements of narrative structure (e.g. character, dramatic conflict, theme, etc.) and how these elements may be used effectively in media expression. Crosslist: ENGL 2382.

Learning Outcomes

1. Identify the elements of storytelling in scripted text or improvised performance
2. Understand how these elements work together across different media
3. Apply these elements of storytelling in original work
4. Appreciate and master these elements for independent or collaborative work.

View Course Outcomes

FDMA 2383 Writing and Storyboarding 3 Credits (3)

Learning good writing principles to create storyboards and scripts that communicate the overall picture of the project, timing, scene complexity, emotion, and resource requirements.

Learning Outcomes

1. How to create a concept for a CG project.
2. How to visualize a project, including scripting, storyboards and concept drawings.
3. How to manage a project, including scheduling and budgeting.

View Course Outcomes

FDMA 2410 Audio Production II 3 Credits (3)

Students will use skills developed in the Audio Production I course to produce audio projects utilizing a variety of analog and digital audio hardware and software, including continued use of multi-track, computer-based recording and editing systems, as well as exploring more advanced audio techniques and concepts. (2+2P)

Learning Outcomes

1. Apply analog and digital audio hardware and software in audio recording.
2. Apply common professional set-up practices of audio production facilities.
3. Produce audio projects, sync sound recordings, and audio dialogue replacement (ADR) demonstrating technical expertise.
4. Perform an audio mix and master for a final professional product.
5. Analyze and compare existing audio productions for quality.

View Course Outcomes

FDMA 2510 Introduction to Sound Design for Film 3 Credits (3)

This course is an introduction to the principles, techniques and applications of sound design and film scoring. Students learn how sound affects storytelling in a film, examine the role of sound from the script to screen, and the professional process of creating a soundtrack. Students learn how to use sound equipment in a production environment and execute basic techniques used to develop a soundtrack. Crosslist: FDMA 1415.

Prerequisite(s)/Corequisite(s): FDMA 2382

Learning Outcomes

1. Compare the properties and propagation of sound and importance of sound to the storytelling aspect of filmmaking
2. Learn the process of designing a soundtrack for film and recording live audio dialogue for use in post- production editing.
3. Learn methods of capturing sound including live audio recording, dialogue recording, Foley, orchestration and audio dialogue replacement
4. Design a soundtrack for motion media project.

View Course Outcomes

FDMA 2520 Introduction to Cinematography 3 Credits (3)
The Director of Photography (or Cinematographer), in close collaboration with the Director and Production Designer, helps determine the look of a film. This course is designed to introduce students to the technical and aesthetic fundamentals of creating, developing, and collaborating on the visual elements of storytelling, using camera framing, lensing, and lighting fundamentals such as shadows, light and color. Repeatable: up to 6 credits. only.
Prerequisite(s)/Corequisite(s): FDMA 1210 or FDMA 2382
Learning Outcomes
  1. Define and explain the fundamental concepts of cinematography, such as exposure, lighting solutions, and color temperature.
  2. Understand how cinematography brings the Director's vision to reality.
  3. Demonstrate proficiency in plotting and executing interior and exterior lighting solutions.

View Course Outcomes

FDMA 2530 Introduction to 3D Modeling 3 Credits (3)
This course will introduce 3D modeling methods and current practices. Students will learn preliminary and detailed modeling techniques using industry standard software. Methods will emphasize formal and functional aspects of modeling as they apply to mechanical, organic, and sculpted topology for application in animation, games, and information media. Repeatable: for a maximum of 6 credits.
Learning Outcomes
  1. Identify the role of a 3D modeler in a production pipeline within various fields of digital animation.
  2. Apply techniques in modeling mechanical and organic objects.
  3. Utilize tools available in professional 3D modeling software.
  4. Create simple animations and renders.
  5. Present original animations to instructor and classmates for critique.
  6. Create a demo reel of work completed during the course.

View Course Outcomes

FDMA 2535 Digital Illustration Techniques 3 Credits (3)
Introductory course examining traditional artistic expressions and translating visual art experiences into a digital art medium to enhance visual storytelling. Students acquire basic principles of drawing and painting through hands-on experience manipulating tonal value, composition, form development, light and shadow, color theory, rendering realism, and graphic design.
Learning Outcomes
  1. Be familiar with the CMI computer system, facilities, equipment and policies.
  2. Appropriately utilize the various media technologies available at CMI for digital illustration.
  3. Understand the different roles and areas of digital illustration.
  4. Understand and apply some basic techniques of digital illustration.
  5. Understand and apply some basic processes of creating pleasing images based on knowledge of traditional art principles.
  6. Begin to apply some basic strategies for developing and creating aesthetically pleasing images.

View Course Outcomes

FDMA 2550 Print Media III (Desktop Publishing III) 3 Credits (3)
Refinement of skills needed to prepare a variety of documents for print and the service bureau.
Learning Outcomes
  1. To become more proficient with InDesign in preparing a variety of documents including CD covers, flyer and long documents.
  2. To refine design process in laying out various documents.
  3. To increase knowledge of paper creation and relevant paper choices for specific projects.
  4. To increase knowledge of color and file formats.
  5. To prepare files for service bureaus, presentation and critique.
  6. To create portfolio-ready pieces.

View Course Outcomes

FDMA 2570 Creative Media Studio 3 Credits (3)
A studio environment where students specialize in creating film-festival quality and portfolio-ready projects under the supervision of faculty. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 1210 and FDMA 1220 or FDMA 2530
Learning Outcomes
  1. Students will work together to create portfolio-quality work in a studio environment. Through classroom discussion and reporting the students will collaborate to produce a professional quality "vertical slice" game concept within a defined timeline and financial budget.

View Course Outcomes

FDMA 2710 Beginning 2-D Animation 3 Credits (3)
Students will learn the basics of digital 2D animation by working through a variety of exercises, creating an original storyboard, and animating five or more shots utilizing industry standard software.
Learning Outcomes
  1. Use major software tools with ease
  2. Manage timelines through key frames
  3. Build storyboards
  4. Demonstrate knowledge of 2-D and animation terminology
  5. Produce actions, set environments and constraints for 2-D animation
  6. Render full animation

View Course Outcomes

FDMA 2715 Special Effects 3 Credits (3)
Creating advanced virtual special effects for both rigid and soft bodies. Using MEL, dynamic principles, mixing nodes, and advanced particle systems. How to drive particles over surfaces, add texture to flow, create surface tensions, and use collision events to drive texture. Study of integrating computer-generated images with real-life video and audio. (2+4P)
Prerequisite(s): FDMA 2530
View Course Outcomes

FDMA 2720 3D Animation 3 Credits (3)
Overview of the essentials and principles of 3D animation; creative methods for using industry standard tools to produce the illusion of movement for storytelling and creating 3D effects. Topics include, keyframe and curve animation, kinematics, cycle animation, camera animation, deformers, dynamics and constraints.
Prerequisite(s): FDMA 1510, FDMA 2710
Learning Outcomes
1. Clearly describe the role of an animator in cinema, gaming and related fields.
2. Recognize leading animators and their methods.
3. Demonstrate knowledge of advances in contemporary animation.
4. Utilize current industry standard animation tools.
5. Apply fundamental animation processes and techniques.

View Course Outcomes

FDMA 2725 Rigging for 3D Animation 3 Credits (3)
This course will introduce principles and practices of current 3D animation rigging. Students will develop fundamental methods necessary to create character rigs. Students will learn aesthetic, technical, and optimization concepts as they apply to organic and mechanical designs. Topics will include: hierarchies, constraints, deformation rigging, skeleton creation, skinning, forward and inverse kinematics, controls, body and facial rigging.
Prerequisite(s): FDMA 1510
Learning Outcomes
1. Understand what Rigging is and the role it plays in the world of cinema and video games.
2. Be familiar with industry professionals and their techniques and approaches to rigging.
3. Understand and be able to apply the fundamentals of rigging to industry standard applications.
4. Demonstrate ability to rig basic to intermediate machines, bipeds and quadrupeds.

View Course Outcomes

FDMA 2730 Advanced Character Animation 3 Credits (3)
Focus on complex rigging techniques as well as utilizing advanced animation functions to blend multiple animations into complex animations. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 2530
Learning Outcomes
1. Create skeletal riggings for use with a 3D model
2. Attach riggings to a 3D model using Smooth and rigid binding and refine the bindings so that they are properly weighted
3. Animate a 3D model using skeletal and vertex animation techniques

View Course Outcomes

FDMA 2735 Advanced 3D Animation Workshop A 3 Credits (3)
Program capstone. Students will utilize the skills learned in the program to produce their final animation. Group integrated projects are strongly recommended to emulate a real-work animation studio environment. (2+4P)Repeatable: for a maximum of 9 credits.
Corequisite(s): FDMA 2740
Learning Outcomes
1. Define the duties and skills sets required for a career in 3D Modeling.
2. Understand the Maya interface, the uses for all of the major modes and menus of the interface and be able to describe how to access the tools, actions and the options of those tools and actions.
3. Complete and compile a multi shot animated short.

View Course Outcomes

FDMA 2740 Advanced 3D Animation Workshop B 3 Credits (3)
Program capstone. Students will utilize the skills learned in the program to produce their final animation. Group integrated projects are strongly recommended to emulate a real-work animation studio environment. (2+4P)Repeatable: for a maximum of 9 credits.
Corequisite(s): FDMA 2735
Learning Outcomes
1. Define the duties and skills sets required for a career in 3D Modeling.
2. Understand the Maya interface, the uses for all of the major modes and menus of the interface and be able to describe how to access the tools, actions and the options of those tools and actions.
3. Complete and compile a multi shot animated short.

View Course Outcomes

FDMA 2745 Light, Shade, Render 3 Credits (3)
This course will explore the theory and practice of 3D lighting and rendering methodologies. Techniques covered will implement cameras, lighting sources, textures, surface-mapping and algorithmic rendering to produce stylized and photo realistic images. Topics covered will include direct and indirect lighting, shaders that simulate physical substances and effects, rendering multiple passes and simulating physical lens effects.
Prerequisite(s): FDMA 1510 or FDMA 2530
Learning Outcomes
1. Understand the role of lighting and surfacing to tell a story.
2. Be familiar with leading lighting artist and their approaches.
3. Utilize the software implemented in the entertainment industry.
4. Understand and apply fundamental lighting and rendering techniques.
5. Demonstrate ability to create successfully rendered scenes from concept through production.

View Course Outcomes

FDMA 2750 Digital Sculpting 3 Credits (3)
Introduce students to the 3D Sculpting programs which are the industry standard sculpting programs. Students will learn how to create complex high polygon sculpts and normal maps and transfer the models into 3D studio Max and Autodesk Maya. Repeatable: up to 6 credits.
Prerequisite(s): FDMA 2530
Learning Outcomes
1. Demonstrate communication skills through written critiques and explanations
2. Students will demonstrate visual communication skills through critiques, written explanations, and storyboarding
3. Demonstrate a working knowledge of Brush's interface
4. Demonstrate a working knowledge of Zpheres and how they are best used to create sculpts
5. Demonstrate a working knowledge of painting a mesh using Spotlight
6. Demonstrate a working knowledge of retopologizing and exporting the mesh
7. Demonstrate a working knowledge of integrating the full Zbrush pipeline into Unity and Unreal

View Course Outcomes

FDMA 2755 Drawing for Animation 3 Credits (3)
Introductory study of the human and animal form in relation to animation. Students learn fundamentals and exaggeration of the figure, as related to proportion, rhythm, mechanics, and motion. Areas of focus are: basic form, proportion, shape, contour, gesture, anatomy, portraiture, perspective, clothing effects and drawing from observation. FDMA majors.
Learning Outcomes
1. Understand what the basics of drawing the human form.
2. Have a general understanding of human anatomy as needed for the artist.
3. Be able to design the human form from imagination.

View Course Outcomes

FDMA 2760 Personal Character Development 3 Credits (3)
Focus on the development of personal character(s), from sketch to render. Develop complete biographies of character, then build, skin and animate with as many personal attributes as possible.
View Course Outcomes

FDMA 2765 Anatomical Character Design 3 Credits (3)
Focus on building anatomy-based 3D characters. Advanced study in NURBS, subdivisions, and polygon modeling techniques used to create fully functional and realist models. Repeatable: for a maximum of 6 credits.
Learning Outcomes
1. Understand the flow of character anatomy.
2. Model polygon, NURBs, and subdivision objects.
3. Gain a better understanding for geometry flow on characters.
4. Gain general knowledge of anatomical character techniques.
5. UV texture an anatomical character correctly.
6. Create anatomical characters more efficiently.
7. Sculpt detail into a character to add to its' realism.

View Course Outcomes

FDMA 2770 Critical Game Studies 3 Credits (3)
Focus on creating a complete design document utilizing techniques and standards used in the industry today. (2+2P)Repeatable: for up to 6 credits.
View Course Outcomes

FDMA 2775 Game Tools and Techniques 3 Credits (3)
Focus on the different engines and gaming technologies that power the games of today. Repeatable: for a maximum of 6 credits. (2+2P)
Prerequisite(s): FDMA 2770
Learning Outcomes
1. Students will develop rapid prototyping techniques. Through classroom exercises the students will gain competency in industry-standard game creation engines and tools, and learn to work together in groups to create rapid prototypes. This includes creating art, sound and music, and creating basic scripts within an engine.

View Course Outcomes

FDMA 2780 Gaming Platform and Standards 3 Credits (3)
Focus on the different gaming platforms and their corresponding gaming demographics and standards.Repeatable: for up to 6 credits.Restricted to: CMT majors.
Learning Outcomes
1. Break down the different types of bugs found in alpha and beta versions of games
2. Learning how to write and submit bug reports using current industry requirements
3. Communicate clearly within a team environment
4. Learn how each of the major platforms receive game submissions as well as the requirements for each platform.

View Course Outcomes

FDMA 2785 Level Design Concepts 3 Credits (3)
Focus on the design and creation of video game levels. Dealing with the challenges and pitfalls of different video game genres. (2+2P)Repeatable: for a maximum of 6 credits.
Prerequisite(s): FDMA 2770
Learning Outcomes
1. Students will develop level design skills. Through classroom exercises the students will gain a comfortable competency with designing levels both on paper and digitally. This includes creating first person shooter levels, third person levels, multiplayer level design, and more.

View Course Outcomes

FDMA 2993 Workshop in Film & Digital Media Arts 1 Credit (1)
This is a series of 1-credit workshops offering specialized and intense advanced skill training and upgrading applications of photography for commercial purposes and training in photographic skills and styles presented by a variety of professional lecturers. Repeatable: up to 7 credits.
Prerequisite(s): FDMA 1545
View Course Outcomes

FDMA 2994 Portfolio in Film & Digital Media Arts 1-3 Credits
VariesRepeatable: up to 6 credits.
View Course Outcomes

FDMA 2995 Cooperative Education in Film & Digital Media Arts 3-6 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. Repeatable: up to 9 credits. Grading: S/U Grading (S/U, Audit)
Prerequisite(s): FDMA 2125
View Course Outcomes

FDMA 2996 Topics in Film & Digital Media 1-4 Credits
Specific topics to be announced in the Schedule of Classes. Repeatable: for a maximum of 18 credits.
View Course Outcomes

FDMA 2997 Independent Study in Film & Digital Media Arts 1-3 Credits
Individual studies directed by consenting faculty with prior approval of department head. Repeatable: up to 6 credits.
Prerequisite(s): Minimum GPA of 3.0 and sophomore standing
View Course Outcomes

FDMA 2998 Field Experience in Film & Digital Media Arts 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. Graded: S/U Grading (S/U, Audit).
Repeatable: up to 9 credits
View Course Outcomes

Fire Investigation (FIRE)

FIRE 101 Firefighter I 8 Credits (8)
This course will train the student to the Firefighter I level as outlined in NFPA 1001, Standard for Firefighter Professional Qualifications. Firefighter I certification issued through the New Mexico Firefighter's Training Academy upon successful completion (IFSAC accredited). (6+6P)
Prerequisite(s)/Corequisite(s): OEEM 103 and FIRE 115
Repeatable: up to 8 credits
View Course Outcomes

FIRE 102 Fire Fighter I and II 12 Credits (12)
This course will train the student as outlined in NFPA 1001, Fire Fighter Professional Qualifications. Firefighter I & II Certification issued through the New Mexico Firefighter's Training Academy (NMFTA) upon successful completion [International Fire Service Accreditation Congress (IFSAC) & Pro Board accredited].
Prerequisite(s)/Corequisite(s): FIRE 115, FIRE 252, OEEM 103
View Course Outcomes

FIRE 104 Firefighter II 8 Credits (8)
This course will train the student to the Firefighter II level as outlined in NFPA 1001, Standard for Firefighter Professional Qualifications. Firefighter II certification issued through the New Mexico Firefighter's Training Academy upon successful completion (IFSAC accredited). (6+6P)
Prerequisite(s): FIRE 101
Prerequisite(s)/Corequisite(s): FIRE 252
Repeatable: up to 8 credits
View Course Outcomes

FIRE 112 Principles of Emergency Services 3 Credits (3)
This course provides an overview to fire protection and emergency services including career opportunities in fire protection and related fields. The organization and function of public and private fire protection services is studied including how fire departments fit as part of local government. An overview of laws and regulations affecting the fire service is explored along with specific fire protection functions and responsibilities including basic fire chemistry and physics, introduction to fire strategy and tactics and life safety initiatives.
Repeatable: up to 3 credits
View Course Outcomes

FIRE 114 Fire Behavior and Combustion 3 Credits (3)
This course explores the theories and fundamentals of how and why fires start, spread, and are controlled.
View Course Outcomes

FIRE 115 Hazardous Materials Awareness and Operations 3 Credits (3)
This course will train the student to the Hazardous Materials 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. Hazardous Materials Awareness and Operations certification issued through the New Mexico Firefighter's Training Academy upon successful completion (IFSAC accredited).
Repeatable: up to 3 credits
View Course Outcomes

FIRE 120 Fire Protection Hydraulics and Water Supply 3 Credits (3)
This course will train students on skill requirements for becoming a safe and effective fire apparatus driver/operator. The focus will be on pump operation, construction, testing, and mathematical calculation required for effective pump operation and fire control. Responsibilities of the driver/operator will be taught and assessed consistent with applicable NFPA standards and the New Mexico Firefighters' Training Academy (NMFTA) guidelines. Students who meet all course requirements will be eligible for International Fire Service Accreditation Congress (IFSAC) certification through the NMFTA.
Prerequisite(s)/Corequisite(s): FIRE 128
View Course Outcomes

FIRE 126 Fire Prevention 3 Credits (3)
This course will educate students about the principles and techniques of fire prevention and life-safety inspection and code compliance in accordance to NFPA 1031, Standard for Professional Qualifications for Fire Inspector and Plan Examiner, Level I. Students who meet all course requirements will be eligible for International Fire Service Accreditation Congress (IFSAC) certification through the New Mexico Firefighters' Training Academy (NMFTA).
View Course Outcomes

FIRE 128 Apparatus and Equipment 2 Credits (2)
The course will train students on attitude and skill requirements for becoming a safe and effective fire apparatus driver/operator. The focus will be on apparatus inspection, operation, maintenance, and specification. Responsibilities of the driver/operator will be taught and assessed consistent with applicable NFPA standards and the New Mexico Firefighters' Training Academy (NMFTA) guidelines. Students pursuing certification must posses a current and valid New Mexico driver's license. Students who meet all course requirements will be eligible for International Fire Service Accreditation Congress (IFSAC) certification through the NMFTA.
View Course Outcomes

FIRE 130 Principles of Fire and Emergency Services Safety and Survival 3 Credits (3)
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.
View Course Outcomes

FIRE 200 Special Topics 12 Credits (12)
Specific subjects to be announced in the Schedule of Classes. Course may be repeated for credit as topics change.
Repeatable: up to 12 credits
View Course Outcomes

FIRE 201 Independent Study 3 Credits (3)
Research on an approved topic to meet graduation requirements. Meets or exceeds NFPA standards.
Repeatable: for total of 9 credits
View Course Outcomes

FIRE 203 Fire and Emergency Services Administration 3 Credits (3)
This course will provide students entry-level training in company operations and administration at the first-line supervisory level. The student will learn how to effectively manage human resources and community/public relations. Students will learn about fire department organization and administration; including budgets, reports, and planning. Students will learn the process involved in fire inspection, investigation, public education, emergency service delivery, and safety, per NFPA Standard 1021, Fire Officer Professional Qualifications.
Repeatable: up to 3 credits
View Course Outcomes

FIRE 210 Building Construction for Fire Protection 3 Credits (3)
This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies.
View Course Outcomes

FIRE 220 Cooperative Experience I 3 Credits (3)
Supervised cooperative work program. Student is employed in an approved occupation and rated by the employer and instructor. Graded S/U.
Repeatable: for a maximum of 6 credits
View Course Outcomes

FIRE 221 Cooperative Experience II 3 Credits (3)
Apply advanced firefighting knowledge and skills while working with fire protection agencies. Meets or exceeds NFPA standards. Graded: S/U.
Prerequisite(s): FIRE 220
View Course Outcomes

FIRE 223 Fire Investigations I 3 Credits (3)
This course meets the requirements set forth in NFPA 1033 Professional Qualifications for Fire Investigator. This course will give a comprehensive understanding of the principles of fire investigation, scene examination, documentation, evidence collection/preservation, interview techniques, and post-incident investigations. Student who meet all course requirements are eligible for International Fire Service Accreditation Congress (IFSAC) certification through New Mexico Firefighters' Training Academy (NMFTA).
View Course Outcomes

FIRE 224 Strategy and Tactics 3 Credits (3)
Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment and extinguishing agents on the fire ground. Covers the development of systematic action plans for emergency situations. Includes recognizing and prioritizing emergency scene needs and developing related strategies, tactics and contingencies. Educates students on how resources should be deployed to implement those plans.
View Course Outcomes

FIRE 225 Fire Protection Systems 3 Credits (3)
This course provides information relating to the features and design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.
View Course Outcomes

FIRE 230 Fire Service Instructor 3 Credits (3)
View Course Outcomes

FIRE 232 Firefighter Internship 3 Credits (3)
Application of knowledge, skills and abilities in a fire service department, as a firefighter intern and integrated member of a fire affiliated agency. Prerequisites: FIRE 101, FIRE 102, FIRE 115, FIRE 202 and EMT-B. Restricted to majors.
View Course Outcomes

FIRE 233 Practical Approach to Terrorism 3 Credits (3)
Gives responder an overall safety approach in recognizing and responding to incidents involving terrorism. Presents an overview in types of harm, explosive weapons, chemical weapons, biological weapons and radiological weapons.
View Course Outcomes

FIRE 252 Vehicle Extrication 2 Credits (2)
This course will train the student to the Vehicle & Machinery Extrication level I as outlined in NFPA 1006, Standard for Technical Rescuer Professional Qualifications. Vehicle & Machinery Extrication certification issued through the New Mexico Firefighter's Training Academy upon successful completion (IFSAC accredited).
Repeatable: up to 2 credits
View Course Outcomes

First Year Experience (FYEX)

FYEX 1110 First-Year Seminar 1-3 Credits
This course is designed to help students achieve greater success in college and in life. Students will learn many proven strategies for creating greater academic, professional, and personal success. Topics may include career exploration, time management, study and test-taking strategies to adapt to different learning environments, interpersonal relationships, wellness management, financial literacy, and campus and community resources.
Learning Outcomes
  1. Recognize the ways in which s/he is responsible for her/his own experience in education.
  2. Identify, locate, and utilize available campus resources essential for academic success.
  3. Create long- and short-term goals associated with student success and career planning.
  4. Implement time management techniques to organize the semester's workload.
  5. Develop strategies to use individual strengths to succeed and reflect upon coursework and course progress in multiple classes to alter academic behaviors and create deeper meaning and learning.
  6. Apply the skills essential for analyzing and solving problems in her/his academic, professional, and personal life, which may include financial literacy and wellness management.
  7. Develop and apply essential skills such as reading, taking notes, studying, memorizing, taking tests, and self-management skills necessary for college success.
  8. Identify and revise self-defeating patterns of behavior, thought, and emotion as well as unconscious limiting beliefs.
  9. Develop supportive relationships with members of the campus community. 1
 10. Develop essential reading, writing, and critical thinking skills used in study and in research. 1
 11. Demonstrate understanding of how to use the computer for academic purposes, including learning management systems, email communications, research databases, degree audit, and other online resources.

View Course Outcomes

FYEX 1112 The Freshman Year Experience 3 Credits (3)
An introduction to the university and its resources; emphasis on development of academic and personal skills that enable freshmen to become successful learners.
Prerequisite(s): Freshman Standing Only
Learning Outcomes
  1. Appreciate the goals, methods, and values of higher education
  2. Expand intellectual development and self-direction
  3. Establish a faculty mentor relationship
  4. Enhance knowledge and practice of collaborative learning principles
  5. Establish a familiarity with campus resources and student services
  6. Develop public speaking, critical thinking, library research, and study strategies
  7. Evaluate talents and interest in relation to selecting a major and career planning
  8. Examine and clarify values
  9. Acknowledge and enhance respect for diversity

View Course Outcomes

FYEX 1115 Transition from Military to University 3 Credits (3)
Making a positive transition from military to civilian life is key to success. This course will cover a variety of topics ranging from time management to critical thinking. This course is designed to assist military and veteran students in becoming more effective learners through self-awareness, effectiveness study & learning strategies, and interpersonal skills. Skills and techniques for managing military to civilian readjustment transition issues are discussed and examined.
Learning Outcomes
  1. Demonstrate skills necessary to transition from a military to academic environment
  2. Analyze acquired military skillsets and connect to academic major and career
  3. Understand and demonstrate effective time management, test-taking strategies, stress management, and other key college success skills
  4. Identify and utilize campus resources and student services

View Course Outcomes

FYEX 1116 Managing Your Money 1 Credit (1)
Principles and strategies for effective money management. Includes financial goal setting, both short and long term. Explores the relationship between career and income earning potential. Explores issues of credit and debt management and prevention of identity theft.
Learning Outcomes
1. Demonstrate understanding of the psychology of money and how it relates to personal financial decisions
2. Create realistic short- and long-term financial goals and a personal budget
3. Comprehend and manage college finances, including types of financial aid
4. Appreciate the importance of the Free Application for Federal Student Aid (FAFSA)
5. Describe the financial aspects of career development and how they apply to their own lives, including resume, taxes, salary, benefits
6. Apply principles of student loan management
7. Demonstrate use of credit reports in the prevention identity theft
8. Identify essential elements of smart spending and borrowing
9. Recognize debt and repayment costs 1
10. Explain the basics of saving and planning for the financial future 1
11. Create focused, developed, clear discussion posts and other written work for this class

View Course Outcomes

FYEX 1117 Financial Literacy Money Matters 2 Credits (2)
This course will cover a variety of financial literacy topics ranging from budgeting to student loan repayment. This course is designed to assist students in becoming more financially literate.
Learning Outcomes
1. Master effective strategies and other skills related to financial literacy
2. Establish a familiarity with campus resources designed to foster financial literacy and wellness
3. Exhibit intellectual development and self-direction in relation to financial literacy and wellness
4. Identify financial literacy skills which best support individual financial well-being
5. Demonstrate skills and knowledge that allows the student to make informed and effective decisions with all of their financial resources.

View Course Outcomes

FYEX 1131 Personal Learning Skills I 1-3 Credits
Individualized programs for self-improvement in skill areas necessary for academic success in the university environment. Each course to bear an appropriate subtitle. Grading: S/U. Repeatable: up to 3 credits.
Learning Outcomes
1. Synthesize the importance of critical thinking through self-reflection and self-exploration
2. Analyze and apply critical thinking skills using the eight intellectual standards
3. Describe the common barriers to critical thinking and construct problem solving strategies
4. Evaluate information and knowledge to determine misinformation and inaccuracies
5. Demonstrate information literacy by recognizing when information is needed and being able to efficiently locate, accurately evaluate, effectively use, and clearly communicate the information in various formats and mediums

View Course Outcomes

FYEX 1132 Academic and Personal Effectiveness 2 Credits (2)
Learn academic self-analysis skills through the application of study and learning techniques to current course demands. Exposure to a variety of topics which enhance university and life-long learning.
Learning Outcomes
1. Students will demonstrate mastery of Student Learning Outcomes in time management, stress management, test taking, and other skills through completion of activities, quizzes, discussions, and more.
2. Students will be able to identify NMSU campus resources, including their services, location, and contact information.
3. Students will exhibit intellectual development and an improved self-direction through participation in the course.
4. Students will be able to identify and adopt those management skills which best support academic and career choices.

View Course Outcomes

FYEX 1133 Academic Reading and Study Skills 1 Credit (1)
Introduction to and practice with strategies for effective reading and studying at the college level. Provides lab.
Provides Lab
Learning Outcomes
1. Use reading strategies to synthesize texts
2. Identify rhetorical elements of texts
3. Identify and apply different study methods
4. Recognize the role of student support services for student success
5. Identify and practice effective time management skills
6. Demonstrate proficient computer skills
7. Write an effective summary

View Course Outcomes

FYEX 1134 Speed Reading 1 Credit (1)
Introduction to strategies and techniques for increasing reading rate and comprehension related to academic areas.
Learning Outcomes
1. Demonstrate an understanding of speed reading strategies and eye movement drills
2. Expand vocabulary and reading comprehension
3. Improve reading rates and develop reading techniques
4. Demonstrate an understanding of skimming techniques and scanning strategies.

View Course Outcomes

FYEX 1140 Career Exploration 1 Credit (1)
Survey of careers possible with community college associate degrees. Information on how to make a career choice.
Learning Outcomes
1. Desired career and lifestyle
2. Areas of interest
3. Skills and abilities
4. Personal values
5. Programs that match the student's interests, abilities, and values
6. Three careers that match the student's interests, abilities, values, and personality

View Course Outcomes

FYEX 1150 Diversity at the University 3 Credits (3)
In this course students will engage in discussions about diversity at the university, what it means in today's society and local community, and build on its complexity. Grading: S/U, (S/U, Audit).
Learning Outcomes
1. Acknowledge and enhance sensitivity and respect for diversity
2. Recognize and gain insight to diversity issues on college campuses
3. Analyze and interpret information about cultural differences, cultural rules, and cultural biases in their own society or about non-dominant or marginalized groups.
4. Articulate ways in which social identities such as race, class, and gender intersect to
5. influence individual life experiences and/or perspectives on and off campus.
6. Integrate, synthesize, and apply knowledge of other cultures in both a broad and focused context.

View Course Outcomes

FYEX 1160 Tutorial 1 Credit (1)
Development of specific skills required for college courses, such as note-taking, listening, and test-taking. To be taken in conjunction with a regular designated college course. Repeatable: up to 3 credits.Grading: S/U.
Learning Outcomes
1. Demonstrate the ability to organize their time in order to improve study habits.
2. Apply pre-reading strategies to improve reading concentration and comprehension.
3. Demonstrate basic understanding of the systems of the body.
4. Identify techniques to improve personal concentration and comprehension skills.
5. Identify and demonstrate listening skills.
6. Identify effective study and note taking skills.
7. Identify and demonstrate effective test-taking skills.
8. Identify critical thinking skills used in nursing.
9. Demonstrate knowledge of key terms.

View Course Outcomes

FYEX 1170 Gospel Choir 1 Credit (1)
Students will gain performance experience and exposure to urban contemporary gospel music. Open to all majors. May be taken for unlimited credit. Repeatable: for unlimited credit.
Learning Outcomes
1. Comprehended the foundation related to singing in a gospel choir setting
2. Demonstrate an understanding of the difference between the musical treble and bass clef
3. Expand vocabulary and reading comprehension of gospel music terminology.
4. Improve the speed and accuracy of music sheet and sight reading

View Course Outcomes

FYEX 1995 Cooperative Education in First Year Experience 3 Credits (3)
The Cooperative Education Course provides students with a comprehensive overview of career-related topics designed to assist with securing Cooperative Education and Internship employment. Students learn about philosophies and approaches to resumes, cover letters, interviewing, job searching, networking, and professionalism. A primary focus of the course is on experiential learning where students have opportunities to practice and implement course concepts including interviewing, networking, job searching, and document creation. In addition to exploring topics related to Cooperative Education and Internship, the course is designed to provide students with tools and strategies for successfully navigating the transition from student to employee.
Learning Outcomes
1. Demonstrate skills related to securing experiential learning experiences
2. Demonstrate knowledge related to the philosophies and approaches to resumes, cover letters, interviewing, cooperative education and internship search, and networking
3. Comprehend the importance of experiential learning experiences in relation to career development
4. Evaluate experiential learning opportunities and demonstrate comprehension of the skills and strategies necessary to transition from student to career

View Course Outcomes

FYEX 1996 Topics in First Year Experience 1-4 Credits
Covers specific study skills and critical thinking topics. Specific sub-titles to be listed in the Schedule of Classes. Repeatable: up to 8 credits.
View Course Outcomes

FYEX 2111 Critical Thinking Skills 3 Credits (3)
Introduction to critical thinking processes. Develops higher order thinking necessary to evaluate clearly, logically, and accurately one's academic and life experiences. Practical emphases on assertive thinking and perspectives.
Learning Outcomes
1. Students will raise vital questions and problems, formulating them clearly and precisely.
2. Students will gather and assess relevant information, using abstract ideas to interpret it effectively, come to well-reasoned conclusions and solutions, and them against relevant criteria and standards.
3. Students will think open-mindedly within alternative systems of thought, recognizing and assessing assumptions, implications, and practical consequences.
4. Students will communicate effectively in figuring out solutions to complex problems.

View Course Outcomes

FYEX 2994 Portfolio in First Year Experience 6 Credits (6)
Creating a portfolio that outlines professional and educational experiences. Life skills and education learned through workplace training and non-traditional education experiences will be evaluated for consideration of awarding college credit. Students will draft a life history paper, prepare a professional resume, assemble supporting documentation and evidence in support of their petition to receive college credit for prior learning. Culminating activities will include an oral presentation of the portfolio contents. Graded S/U.
Prerequisite(s): CCDE 110 N or equivalent
View Course Outcomes

Fish, Wildlife, Conservation Ecology (FWCE)

FWCE 1110G Introduction to Natural Resources Management 4 Credits (4)
This class covers historical and current issues affecting the management of renewable natural resources with an emphasis on water, soil, rangeland, forest, fish, and wildlife resources. An emphasis is placed on the scientific method and critical thinking. In the laboratory students collect and analyze field data on topics covered above and write up each unit as a laboratory report. (3+2P)Provides lab.
Provides Lab
View Course Outcomes

FWCE 1120 Contemporary Issues in Wildlife and Natural Resources Management 3 Credits (3)
Ecological, socioeconomic, and political issues surrounding the management of our natural resources with an emphasis on fish and wildlife resources.
View Course Outcomes

FWCE 2110 Principles of Fish and Wildlife Management 3 Credits (3)
Basic principles of fish and wildlife management including history, ecology, economics, and policy. Emphasis on wildlife and fisheries. Uses an ecosystem approach integrating living and nonliving resources.
Prerequisite(s): FWCE 1110G
Learning Outcomes
1. The goal of this course is to provide a firm foundation in the principles of wildlife and fisheries management.
2. Material will include a background in biological principles geared towards animal populations, characteristics and management of the habitats utilized by fish and wildlife, techniques used to study and manage animals and their habitats, and aspects of the human dimension involved in wildlife and fisheries issues.
3. This course serves as a core requirement for degrees offered in the Department of Fish, Wildlife and Conservation Ecology and as a required course for degrees in other departments such as Rangeland Resources.

View Course Outcomes

Food Science & Technology (FSTE)

FSTE 1120 ACES in the Hole Foods I 4 Credits (4)
Food production activities related to operation of ACES in the Hole Foods, a student-run food company that will give FSTE majors hands-on experience in all aspects of developing, producing and marketing food products.
Learning Outcomes
1. Apply basic scientific principles, procedures, techniques and standards in the production of food products.
2. Apply principles of sanitation and safety to the production of food products.
3. Assist in the development and evaluation of new and/or existing food products made for human consumption.
4. Prepare a resume and portfolio

View Course Outcomes

FSTE 2110G Food Science I 4 Credits (4)
The scientific study of the principles involved in the preparation and evaluation of foods. (3+2P) Repeatable: up to 4 credits.
View Course Outcomes

FSTE 2120 ACES in the Hole Foods II 4 Credits (4)
The scientific study of the principles involved in the preparation and evaluation of foods. (3+2P) Repeatable: up to 4 credits.
Learning Outcomes
1. Apply basic scientific principles, procedures, techniques and standards in the production of food products.
2. Apply principles of sanitation and safety to the production of food products.
3. Assist in the development and evaluation of new and/or existing food products made for human consumption.
4. Prepare a resume and portfolio.

View Course Outcomes

FSTE 2130G Survey of Food and Agricultural Issues 3 Credits (3)
Survey of food and agricultural issues, including: geography of food production and consumption; human-agricultural-natural resource relations; agriculture in the United States and abroad; modern agribusiness; food safety; food, agriculture, and natural resources policy; ethical questions; role and impact of technology. Crosslist: AEEC 2130G.
View Course Outcomes

FSTE 2996 Topics in Food Science and Technology 1-4 Credits
Specific topics and credits to be announced in the Schedule of Classes. Maximum of 4 credits per semester and a grand total of 9 credits.
Learning Outcomes
1. Student learn objectives vary based on topic.

View Course Outcomes

French (FREN)

FREN 1110 French I 4 Credits (4)
Intended for students with no previous exposure to French, this course develops basic listening, speaking, reading, and writing skills aiming toward the ACTFL novice-high level. This is an introductory course designed to teach the student to communicate in French in everyday situations and to develop an understanding of French and Francophone cultures through the identification of cultural products and practices, of cultural perspectives, and the ability to function at a survival level in an authentic cultural content. This course will also develop the student's sense of personal and social responsibility through the identification of social issues.
Learning Outcomes
1. Students can communicate and exchange information about familiar topics using phrases and simple sentences, sometimes supported by memorized language.
2. Students can usually handle short social interactions in everyday situations by asking and answering simple questions
3. Students can write short messages and notes on familiar topics related to everyday life.
4. Students can often understand words, phrases, and simple sentences related to everyday life.
5. Students can recognize pieces of information and sometimes understand the main topic of what is being said.
6. Students can understand familiar words, phrases, and sentences within short and simple texts related to everyday life.
7. Students can sometimes understand the main idea of what they have read.
8. Students can identify beliefs, behaviors and cultural artifacts of the French-speaking world.
9. In English, students will engage with social issues confronting the French-speaking world to develop their sense of personal and social responsibility.

View Course Outcomes

FREN 1120 French II 4 Credits (4)
A continuation of French 1, students will develop a broader foundation in skills gained during the first semester, including understanding, speaking, reading and writing French aiming toward the ACTFL intermediate-low level. This course is designed to increase student fluency in French as applied to everyday situations. Students will also learn to recognize and understand various French and Francophone products, practices, and perspectives, identifying common cultural patterns, describing basic cultural viewpoints, and further developing their sense of personal and social responsibility through the investigation of cultural issues.
Prerequisite(s): C or better in FREN 1110
Learning Outcomes
1. Students can participate in conversations on a number of familiar topics using simple sentences.
2. Students can handle short social interactions in everyday situations by asking and answering simple questions.
3. Students can write briefly about most familiar topics and present information using a series of simple sentences.
4. Students can understand the main idea in short, simple messages and presentations on familiar topics.
5. Students can understand the main idea of simple conversations that they overhear.
6. Students can understand the main idea of short and simple texts when the topic is familiar.
7. Students can describe and make comparisons between decisions about beliefs, behaviors and cultural artifacts of the French-speaking world.
8. Students will engage with social issues confronting the French-speaking world to continue to develop their sense of personal and social responsibility.

View Course Outcomes

FREN 2110 French III 3 Credits (3)
In this third semester course, students will continue to develop a broader foundation in skills gained during the first year, including understanding, speaking, reading and writing French aiming toward the ACTFL intermediate-mid level. This course is designed to teach the student to communicate in a more sustained way in areas of personal interest and in everyday situations. Students will engage in and analyze various French and Francophone products, practices, and perspectives, as well as continue to develop their sense of personal and social responsibility through comparison and contrast of cultural perspectives.
Prerequisite(s): C or better in FREN 1120
Learning Outcomes
1. Students can participate in conversations on familiar topics using sentences and series of sentences.
2. Students can engage in short social interactions in everyday situations by asking and answering a variety of questions. Students can usually say what they want to say about themselves and their everyday life.
3. Students can write on a wide variety of familiar topics using connected sentences.
4. Students can understand the main idea in messages and presentations on a variety of topics related to everyday life and personal interests and studies.
5. Students can understand the main idea of conversations that they overhear.
6. Students can understand the main idea of texts related to everyday life and personal interests or studies.
7. Students can analyze beliefs, behaviors and cultural artifacts of the French-speaking world, and discuss the nature and value of French and Francophone products, practices, and perspectives.
8. Students will engage with social issues confronting the French-speaking world to continue to develop their sense of personal and social responsibility.

View Course Outcomes

FREN 2120G French IV 3 Credits (3)
In this fourth semester course, students will continue to broaden and refine skills gained during previous semesters, including understanding, speaking, reading and writing French aiming at the ACTFL intermediate-high level. This course is designed to teach the student to communicate in a more sustained way in situations that go beyond the everyday. Students will evaluate various French and Francophone products, practices, and create ways to demonstrate their sense of personal and social responsibility through participation in cultural interaction. Repeatable: up to 3 credits.
Prerequisite(s): C- or better in FREN 2110
View Course Outcomes

Geography (GEOG)

GEOG 1110G Physical Geography 4 Credits (4)
This course introduces the physical elements of world geography through the study of climate and weather, vegetation, soils, plate tectonics, and the various types of landforms as well as the environmental cycles and the distributions of these components and their significance to humans. (3+3P)
View Course Outcomes

GEOG 1120G World Regional Geography 3 Credits (3)
Overview of the physical geography, natural resources, cultural landscapes, and current problems of the worlds major regions. Students will also examine current events at a variety of geographic scales.
View Course Outcomes

GEOG 1130G Human Geography 3 Credits (3)
This course serves as an introduction to the study of human geography. Human geography examines the dynamic and often complex relationships that exist between people as members of particular cultural groups and the geographical spaces and places in which they exist over time and in the world today.
View Course Outcomes

GEOG 2130 Map Use and Analysis 3 Credits (3)
Exploration of the cartographic medium. Development of critical map analysis and interpretation skills, and map literacy. Comprised of traditional lecture, labs, and map use projects. (2+3P)
Learning Outcomes
1. Accurately measure bearings and distances on maps.
2. Read and interpret terrain and landform representation.
3. Utilize a magnetic compass for basic land navigation and basic map making.
4. Utilize a GPS instrument for basic land navigation.
5. Recognize and describe basic physical and cultural spatial patterns portrayed on maps.
6. Analyze and interpret the significance of spatial patterns portrayed on maps.
7. Perform elementary spatial statistical analysis on geographic data.
8. Appreciate and utilize the significance of place names and cultural patterns.
9. Critically examine maps for evidence of information misuse or propagandist motives. 1
10. Recognize and utilize appropriate map categories, symbols, projections, and coordinate systems to effectively and accurately portray, read, analyze, and interpret geographic data.

View Course Outcomes

GEOG 2996 Topics in Geography 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
Repeatable: for a maximum of 12 credits.
View Course Outcomes

Geology (GEOL)

GEOL 1110G Physical Geology 4 Credits (4)
Physical Geology is an introduction to our dynamic Earth introducing students to the materials that make up Earth (rocks and minerals) and the processes that create and modify the features of our planet. The course will help students learn how mountains are formed, how volcanoes erupt, where earthquakes occur, and how water, wind, and ice can shape landscapes. Students will also develop a basic understanding of the ways humans have altered the planet including our impact on natural resources and global climate change. (3+3P)
View Course Outcomes

GEOL 1150 Introduction to Rocks & Minerals 3 Credits (3)
This course is an introduction to the characteristics and the formation of the three main types of rocks, the rock- forming minerals, and important ore minerals. An outline of Plate Tectonics (Continental Drift) will give students the basis to understand how many of these rocks and minerals form. In laboratory exercises, students will gain practice in describing and identifying hand-specimens of the main types of rocks and minerals. (2+3P)
Prerequisite(s)/Corequisite(s): GEOL 1110G
Learning Outcomes
1. The student Identify the main rock-forming minerals from each mineral group as demonstrated by scoring a total of 70% or more on the relevant laboratory exercise component. Studying minerals, the student will: a. Identify the main silicate minerals in hand specimens. b. Describe the environments in which these minerals form. c. Identify the rock types in which these minerals are found. d. Identify the main carbonate minerals in hand specimens. e. Describe the environments in which these minerals form. f. Identify the rock types in which these minerals are found. g. Identify the main sulphide minerals in hand specimens. h. Describe the environments in which these minerals form. i. Identify the rock types in which these minerals are found. j. Identify the main sulphate minerals in hand specimens. k. Describe the environments in which these minerals form. l. Identify the rock types in which these minerals are found. m. Identify the main halide minerals in hand specimens. n. Describe the environments in which these minerals form. o. Identify the rock types in which these minerals are found. p. Identify the main oxide minerals in hand specimens. q. Describe the environments in which these minerals form. r. Identify the rock types in which these minerals are found. s. Identify the main native elements in hand specimens. t. Describe the environments in which these minerals form. u. Identify the rock types in which these minerals are found.
2. The student will understand the structure, composition, and genesis of rocks by identifying the principal igneous, sedimentary, and metamorphic rocks, as demonstrated by scoring a total of 70% or more on the relevant laboratory exercise components.
3. Studying rocks, the student will: a. Define the principal igneous processes and features, identify the most common igneous rocks and their constituting minerals in hand specimens, and discuss their origin and interpretation. b. Describe the principles of sedimentary processes and features, identify the most common sedimentary rocks in hand specimens, and discuss their origin and interpretation. c. Describe the principles of metamorphic processes and features, identify the most common metamorphic rocks and constituting minerals in hand specimens, and discuss their origin and interpretation.

View Course Outcomes

GEOL 2130 Introduction to Meteorology 4 Credits (4)
Introduction to Earths atmosphere and the dynamic world of weather as it happens. Working with current meteorological data delivered via the Internet and coordinated with learning investigations keyed to the current weather; and via study of select archives. (3+3P)
Learning Outcomes
1. Recall, describe, or explain the various elements of the Earth's atmosphere, Earth's relation to the sun, incoming solar radiation, the ozone layer, the primary temperature controls, and the unequal heating of land and water.
2. Recall, describe, or explain weather variables and parameters.
3. Recall, describe, or explain air masses, pressure systems, the various fronts and associated types of storms, weather symbols, monsoons, the various forms of precipitation, along with causes and effects of lightning.
4. Recall, describe, or explain the hydrologic cycle, the characteristics and influences of the oceans and continents on the weather, the Southern Oscillation (i.e., El Nino), and the effects of land/water distribution.
5. Recall, describe, or explain specific impacts by humans on weather, climate, and on the ecosystem at large.
6. Evaluate and interpret information from maps, diagrams, remote sensing devices, graphs, and tables.
7. Apply critical thinking skills such as inductive, deductive, and mathematical reasoning to solve problems using the scientific method.
8. Recognize and discuss the effect of human activity on climate, climate change and the greenhouse effect.
9. Synthesize information from external, current sources and personal observations and discuss their relationships to class material.

View Course Outcomes

GEOL 2996 Topics in Geology 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
Repeatable: for a maximum of 12 credits.
View Course Outcomes

German (GRMN)

GRMN 1110 German I 4 Credits (4)
Intended for students with no previous exposure to German, this course develops basic listening, speaking, reading, and writing skills aiming toward the ACTFL novice-mid level. This is an introductory course designed to teach the student to communicate in German in everyday situations and to develop an understanding of German cultures through the identification of cultural products and practices, of cultural perspectives, and the ability to function at a survival level in an authentic cultural content. This course will also develop the student's sense of personal and social responsibility through the identification of social issues.
Learning Outcomes
1. Students can communicate on very familiar topics using a variety of words and phrases that they have practiced and memorized.
2. Students can write lists and memorized phrases on familiar topics.
3. Students can recognize some familiar words and phrases when they hear them spoken.
4. Students can recognize some letters or characters.
5. Students can understand some learned or memorized words and phrases when they read.
6. Students can identify beliefs, behaviors and cultural artifacts of the German-speaking world.
7. In English, students will engage with social issues confronting the German-speaking world to develop their sense of personal and social responsibility.

View Course Outcomes

GRMN 1120 German II 4 Credits (4)

A continuation of German 1, students will develop a broader foundation in skills gained during the first semester, including understanding, speaking, reading and writing German aiming toward the ACTFL novice-high level. This course is designed to increase student fluency in German as applied to everyday situations. Students will also learn to recognize and understand various German products, practices, and perspectives, identifying common cultural patterns, describing basic cultural viewpoints, and further developing their sense of personal and social responsibility through the investigation of cultural issues.

Learning Outcomes

1. Students can communicate and exchange information about familiar topics using phrases and simple sentences, sometimes supported by memorized language.
2. Students can usually handle short social interactions in everyday situations by asking and answering simple questions.
3. Students can write short messages and notes on familiar topics related to everyday life.
4. Students can often understand words, phrases, and simple sentences related to everyday life.
5. Students can recognize pieces of information and sometimes understand the main topic of what is being said.
6. Students can understand familiar words, phrases, and sentences within short and simple texts related to everyday life.
7. Students can sometimes understand the main idea of what they have read.
8. Students can describe and make comparisons between decisions about beliefs, behaviors and cultural artifacts of the German-speaking world.
9. Students will engage with social issues confronting the German-speaking world to continue to develop their sense of personal and social responsibility.

View Course Outcomes

GRMN 2110 German III 3 Credits (3)

In this third semester course, students will continue to develop a broader foundation in skills gained during the first two semesters, including understanding, speaking, reading and writing German aiming toward the ACTFL intermediate-low level. This course is designed to teach the student to communicate in a more sustained way in areas of personal interest and in everyday situations. Students will engage in and analyze various German products, practices, and perspectives, as well as continue to develop their sense of personal and social responsibility through comparison and contrast of cultural perspectives.

Learning Outcomes

1. Students can participate in conversations on a number of familiar topics using simple sentences.
2. Students can handle short social interactions in everyday situations by asking and answering simple questions.
3. Students can write briefly about most familiar topics and present information using a series of simple sentences.
4. Students can understand the main idea in short, simple messages and presentations on familiar topics.
5. Students can understand the main idea of simple conversations that they overhear.
6. Students can understand the main idea of short and simple texts when the topic is familiar.
7. Students can analyze beliefs, behaviors and cultural artifacts of the German-speaking world, and discuss the nature and value of German products, practices, and perspectives.
8. Students will engage with social issues confronting the German-speaking world to continue to develop their sense of personal and social responsibility.

View Course Outcomes

GRMN 2120 German IV 3 Credits (3)
In this fourth semester course, students will continue to broaden and refine skills gained during previous semesters, including understanding, speaking, reading and writing German aiming at the ACTFL intermediate-mid level. This course is designed to teach the student to communicate in a more sustained way in situations that go beyond the everyday. Students will evaluate various German products, practices, and create ways to demonstrate their sense of personal and social responsibility through participation in cultural interaction.

Learning Outcomes

1. Students can participate in conversations on familiar topics using sentences and series of sentences.

2. Students can engage in short social interactions in everyday situations by asking and answering a variety of questions. Students can usually say what they want to say about themselves and their everyday life.

3. Students can write on a wide variety of familiar topics using connected sentences.

4. Students can understand the main idea in messages and presentations on a variety of topics related to everyday life and personal interests and studies.

5. Students can understand the main idea of conversations that they overhear.

6. Students can understand the main idea of texts related to everyday life and personal interests or studies.

7. Students can analyze beliefs, behaviors and cultural artifacts of the German-speaking world, and recognize and discuss the representations and controversies of German products, practices, and perspectives.

8. Students will engage with social issues confronting the German-speaking world to create ways to demonstrate their sense of personal and social responsibility.

View Course Outcomes

Health Info Technology (HIT)

HIT 110 Electronic Health Records 3 Credits (3)
Current electronic health record principles, methods and procedures, and computerized medical record concepts and software applications will be introduced.
View Course Outcomes

HIT 120 Health Information Introduction to Pharmacology 3 Credits (3)
Introduction to the principles of pharmacology, including drug terminology; drug origins, forms, and actions; routes of administration; as well as the use of generic name drugs, trade name drugs and categories of drugs to treat multiple and specific body systems.
Repeatable: up to 3 credits
Crosslist: NURS 120
Learning Outcomes

1. Summarize major drug standard and legislation requiring legal responsibilities of the health care practitioner when dispensing medications.

2. Describe the major drug classification systems

3. Analyze the sources of drugs and their pharmacokinetic processes and variables that affect drug action and effects

4. Identify drug forms, routes of delivery, and the supplies and techniques necessary for safe and appropriate administration.

5. Apply the principals that support the moral, ethical, and legal responsibilities of the health care practioner when administering medications safely and accurately

6. Assess the four parenteral routes, application of each and specific injection types and sites

7. Identify precautions that should be taken when administering medications and various demographics, and in particular, for older adults

8. Identify the primary routes of poisoning and the procedures, therapies and preventive measures involved in patient care and education

9. Identify commonly used medications 1

10. Outline the sources, mechanism of action, and indications for specific drug therapies 1

11. List the appropriate dosages for several drugs 1

12. Describe the side effects, precautions, contraindications, and interactions for specific medications 1

13. Identify recent actions taken by government and by manufacturers for specific drugs.

View Course Outcomes

HIT 130 Health Information Technology Anatomy & Physiology 3 Credits (3)
An introductory course in the basics of human structure and function. Body systems are examined as to how they relate to proper code selection and as part of the functioning of the body as a whole.
View Course Outcomes

HIT 140 Health Information Introduction to Pathophysiology 3 Credits (3)
Introduction to the nature of disease and its effect on body systems. Disease processes affecting the human body via an integrated approach to specific disease entities will be presented including a review of normal functions of the appropriate body systems. Diseases will be studied in relation to their etiology, pathology, physical signs and symptoms, diagnostic procedures, complications, treatment modalities and prognosis.
Learning Outcomes
  1. Describe basic disease concepts, including mechanisms of disease, neoplasms, inflammation, and infection
  2. Examine the basic anatomy and physiology of the body systems, etiology of various diseases and conditions, important signs and symptoms of disorders, common diagnostics, typical course and management of disorders, preventive measures, and the effects of aging
  3. Identify the terminology, etiology, signs and symptoms, common diagnostics, typical course and management of disorders, and preventive measures associated with genetic and developmental disorders, childhood diseases, and mental health disorders
  4. Recognize important medical terminology related to the understanding of human diseases
  5. State the drug classifications and examples of medications in each class used to treat diseases, disorders and conditions related to each body system.

View Course Outcomes

HIT 150 Introduction to Medical Terminology 3 Credits (3)
The study and understanding of medical terminology as it relates to diseases, their causes and effects, and the terminology used in various medical specialties. Emphasis will be placed on learning the basic elements of medical words, appropriate spelling and use of medical terms, and use of medical abbreviations.
Repeatable: up to 3 credits
Crosslist: NURS 150, AHS 120 and BOT 150
Learning Outcomes
  1. Effective communication skills in reading, writing, listening and speaking.
  2. Basic critical thinking skills include problem identification, evidence acquisition, evidence evaluation, and reasoning/conclusion.
  3. An understanding of personal and social responsibility.
  4. Apply the fundamental concepts of quantitative reasoning in mathematics and science.
  5. Appropriate information and digital literacy and skills for personal and professional use.

View Course Outcomes

HIT 158 Advanced Medical Terminology 3 Credits (3)
Builds upon the concepts covered in HIT 150 or AHS 120 providing greater understanding of how to properly use and apply medical terminology used in the various health fields. Medical terminology associated with the body system's anatomy and physiology, pathology, diagnostic and therapeutic procedures, pharmacology, and abbreviations will be emphasized.
Prerequisite(s): HIT 150 or AHS 120
Learning Outcomes
  1. Provide the student with an advanced knowledge and understanding of medical terms.
  2. Prepare the advanced student for a career in the healthcare field.
  3. State the derivation of most healthcare terms.
  4. Use the rules given to build and spell healthcare terms and build singular terms to their plural forms.
  5. Recognize and recall an introductory word bank of prefixes, suffixes, and combining forms and their respective meanings.
  6. Recognize and use terms associated with the organization of the body, positional and directional vocabulary, body.
  7. Recognize and use terms related to the anatomy, physiology, pathology and procedures for: the musculoskeletal system, integumentary system, digestive system, genitourinary system, pregnancy, childbirth, immune system, circulatory system, respiratory system, nervous system, mental health, eyes, ears, and endocrine system.

View Course Outcomes

HIT 221 Internship I 3 Credits (3)
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. C- or better is required for this course. Restricted to: BOT, HIT majors.
View Course Outcomes

HIT 228 Medical Insurance Billing 3 Credits (3)
Comprehensive overview of the insurance specialist's roll and responsibilities. Concepts and applications that will assist the student in understanding the steps necessary for successfully completing the insurance claim filing and reimbursement processes for various insurance carriers, both private and government, will be emphasized.
Prerequisite(s): HIT/NURS 150; OATS 150
View Course Outcomes

HIT 240 Health Information Quality Management 3 Credits (3)
Introduction to basic concepts of quality improvement and performance improvement as they apply to health record systems and the health care industry. Quality assessment and improvement standards and requirements of licensing, accrediting fiscal and other regulatory agencies will be presented.
View Course Outcomes

HIT 248 Medical Coding I 3 Credits (3)
Comprehensive overview of the fundamentals, coding conventions, and principles of selecting the most appropriate ICD-10-CM/PCS diagnostic and procedure codes. The most recent version of ICD-10-CM/PCS and an in depth study of current Official Coding Guidelines for coding and reporting will be emphasized. (2+2P)
Prerequisite(s): OATS 228
Repeatable: up to 3 credits
View Course Outcomes

HIT 255 Special Topics 3 Credits (3)
Specific topics to be announced in the Schedule of Classes.
Repeatable: up to 6 credits
View Course Outcomes

HIT 258 Medical Coding II 3 Credits (3)
Continuation of Medical Coding I. Comprehensive overview of the coding and reporting guidelines, fundamentals, coding conventions, and principles of selecting the most appropriate CPT and HCPCS procedural codes for all medical specialties. The most recent version of CPT and a continued study of the ICD-10-CM/PCS coding conventions and principles will be emphasized. Designed as a medical coding capstone course.
Prerequisite(s): HIT 248
Repeatable: up to 3 credits
View Course Outcomes

HIT 268 Health Information System 3 Credits (3)
Overview of health data management, work planning, and organization principles; an introduction to health care information systems; and review of the fundamentals of information systems for managerial, clinical support, and information systems.
View Course Outcomes

Heating/AC/Refrigeration (HVAC)

HVAC 102 Fundamentals of Electricity 4 Credits (4)
Introduction to electricity theory, OHM's Law, circuits, AC/DC, and practical applications. (3+2P)
View Course Outcomes

History (HIST)

HIST 1105G Making History 3 Credits (3)
General introduction to history: how historians carry out research and develop interpretations about the past.
View Course Outcomes

HIST 1110G United States History I 3 Credits (3)
The primary objective of this course is to serve as an introduction to the history of the United States from the pre-colonial period to the immediate aftermath of the Civil War. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of the United States within the context of world societies.
View Course Outcomes

HIST 1120G United States History II 3 Credits (3)
The primary objective of this course is to serve as an introduction to the history of the United States from reconstruction to the present. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of the United States within the context of world societies.
View Course Outcomes

HIST 1122 History of Latinos in the U.S. 3 Credits (3)
This course will explore major themes that influence and characterize the experiences of various Hispanic and Latino populations in the regions of North America encompassing the contemporary United States. Through course lessons, readings, mixed media, and discussions, students will develop an appreciation for the diverse Latino groups that are estimated to comprise nearly 30% of the U.S. population by 2050. The elements of this course are designed to inform students on the key historical events and trends of culture, economics, immigration, politics, religion, and social life from pre-European contact up to the present day.
Learning Outcomes
1. Students will be able to explain in their work how core concepts, events, and institutions in the history of Latino populations in the U.S., and how those cultures changed over the course of the centuries from the pre-colonial period to present. Bloom Taxonomy's Cognitive Process: Remember and Understand

2. Students will distinguish between primary and secondary sources, identify, and evaluate evidence, and empathize with people in their historical context. Bloom Taxonomy's Cognitive Process: Analyze, Remember, Evaluate, Create

3. Students will summarize and appraise diverse cultural, ethnic, and linguistic manifestations of Latino populations in the U.S. in order to construct past events. Bloom Taxonomy's Cognitive Process: Understand, Evaluate, Apply

4. Students will identify historical arguments in a variety of sources and engage with critical topics in the historical study of Latino populations in the U.S., including gender, class, and sexuality, while also evaluating credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: Remember, Understand, Evaluate

5. Students will create well-supported historical arguments and narratives that demonstrate an awareness of genre and audience. Bloom Taxonomy's Cognitive Process: Create, Apply

6. Students will apply historical knowledge and historical thinking in order to infer what drives and motivates the Latino experience in the U.S. in both past and present. Bloom Taxonomy's Cognitive Process: Apply, Analyze

View Course Outcomes

HIST 1130G World History I 3 Credits (3)
The primary objective of this course is to serve as an introduction to global history from ancient times to the 16th century. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of world societies. Repeatable: up to 3 credits.
View Course Outcomes

HIST 1140G World History II 3 Credits (3)
The primary objective of this course is to serve as an introduction to global history from the 16th century to the present. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of world societies. Repeatable: up to 3 credits.
View Course Outcomes

HIST 1150G Western Civilization I 3 Credits (3)
This course is a chronological treatment of the history of the western world from ancient times to the early modern era. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of western civilization within the context of world societies. Selective attention will be given to non-western civilizations which impact and influence the development of western civilization.
View Course Outcomes

HIST 1160G Western Civilization II 3 Credits (3)
This course is a chronological treatment of the history of the western world from the early modern era to the present. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of western civilization within the context of world societies. Selective attention will be given to non-western civilizations which impact and influence the development of western civilization.
View Course Outcomes

HIST 1170 Survey of Early Latin America 3 Credits (3)
The primary objective of this course is to serve as a survey of the history of Latin America from pre-Columbian times through independence. This course will explore the contributions of Indigenous peoples, Africans, and Europeans to the creation of Latin America's diverse societies. The elements of this course are designed to inform students on the major events and trends that are essential to the understanding of the history of Latin America within the context of world societies.
Learning Outcomes
1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of Latin America from pre-Columbian times through independence. Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context. Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events. Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience. Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present." Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE 19

View Course Outcomes

HIST 1180 Survey of Modern Latin America 3 Credits (3)
The primary objective of this course is to serve as a survey of the history of Latin America from independence to the present. This course will explore the contributions of Indigenous peoples, Africans, and Europeans to the creation of Latin America's diverse societies. The elements of this course are designed to inform students on the major events and trends that are essential to the understanding of the history of Latin America within the context of world societies.
Learning Outcomes
1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of Latin America from independence to the present. Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context. Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events. Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience. Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present." Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE 20

View Course Outcomes

HIST 2110 Survey of New Mexico History 3 Credits (3)
The primary objective of this course is to serve as an introduction to the history of New Mexico from the pre- Columbian times to the present day. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of New Mexico within the context of the Americas.
Learning Outcomes
1. Students will be able to EXPLAIN in their work how humans in the past shaped their own unique historical moments and were shaped by those moments, and how those cultures changed over the course of the centuries for the history of New Mexico from pre-Columbian times to the present day. Bloom Taxonomy's Cognitive Process: REMEMBER AND UNDERSTAND
2. Students will DISTINGUISH between primary and secondary sources, IDENTIFY and EVALUATE evidence and EMPATHIZE with people in their historical context. Bloom Taxonomy's Cognitive Process: ANALYZE, REMEMBER, EVALUATE, CREATE
3. Students will SUMMARIZE and APPRAISE different historical interpretations and evidence in order to CONSTRUCT past events. Bloom Taxonomy's Cognitive Process: UNDERSTAND, EVALUATE, APPLY
4. Students will IDENTIFY historical arguments in a variety of sources and EXPLAIN how they were constructed, EVALUATING credibility, perspective, and relevance. Bloom Taxonomy's Cognitive Process: REMEMBER, UNDERSTAND, EVALUATE
5. Students will CREATE well-supported historical arguments and narratives that demonstrate an awareness of audience. Bloom Taxonomy's Cognitive Process: CREATE, APPLY
6. Students will APPLY historical knowledge and historical thinking "in order to infer what drives and motivates human behavior in both past and present." Bloom Taxonomy's Cognitive Process: APPLY, ANALYZE
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View Course Outcomes

HIST 2245G Islamic Civilizations to 1800 3 Credits (3)
History of Islamic civilizations to 1800.
View Course Outcomes

HIST 2246G Islamic Civilizations since 1800 3 Credits (3)
History of Islamic civilizations since 1800.
View Course Outcomes

HIST 2250G East Asia to 1600 3 Credits (3)
History of China, Korea, Vietnam, and Japan from earliest times through the sixteenth century. Emphasis on cultural and political developments and their social and economic contexts, and the interaction between East Asian societies.
View Course Outcomes

HIST 2251G East Asia since 1600 3 Credits (3)
History of China, Korea, Vietnam, and Japan from the sixteenth through the twentieth centuries. Emphasis on internal development of each country, as well as the social and political impact of Western Imperialism, and the emergence of each country's unique version of modern society.
View Course Outcomes

HIST 2996 Topics in History 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
View Course Outcomes

Honors (HNRS)

HNRS 1110 Journeys of Discovery 1 Credit (1)
Weekly conversations among students and a faculty member; organized around a particular subject and a small selection of readings.
Prerequisite(s): Honors eligible
Learning Outcomes
1. Students will comprehend and condense information to contribute to class discussions.
2. Students will develop public speaking and presentation skills based on research conducted in and outside of class.
3. Students will expand upon collaborative skills as both group presentations and group written reports.

View Course Outcomes

HNRS 1115 Honors First Year Seminar 3 Credits (3)
Weekly conversations among students and a faculty member; organized around a particular subject and a small selection of readings.
Learning Outcomes
1. Demonstrate critical thought about the nature of knowledge, learning, and student development in the contemporary University.
2. Explain how key concepts and principles serve as the foundation for the Honors College mission and values.
3. Create a plan for their experiences at university, in and out of the classroom, that will maximize their academic achievement and personal success beyond graduation.

View Course Outcomes

HNRS 1135G Introduction to Biological Anthropology 3 Credits (3)
This course provides a basic introduction to the broad field of biological anthropology. The research interests of biological anthropologists include the history and development of modern evolutionary biology, molecular and population genetics, modern primates, the primate and human fossil record, and modern human biological diversity.
View Course Outcomes

HNRS 1135L Introduction to Biological Anthropology Lab 1 Credit (1)
This laboratory course expands on the topics covered in lecture course and uses scientific methods and principles to examine evidence for the process of evolution, the nature of heredity, human evolutionary history and family tree relationships, primate ecology and behavior, and modern human diversity. Hands-on experience with fossil and skeletal material will be an important part of the learning process.
Learning Outcomes
1. Demonstrate an understanding of the scientific method.
2. Employ principles of Mendelian genetics to determine genotype and phenotype probabilities, and calculate gene, genotype, and phenotype frequencies using the Hardy-Weinberg Equilibrium formula.
3. Demonstrate an understanding of cell structure and functions.
4. Use common lab and anthropometric equipment such as a compound microscope and calipers.
5. Discuss primate evolution and compare and contrast members of the Primate order in terms of structure, behavior, and phylogeny.
6. Classify hominid species based upon selected traits such as anatomical changes associated with bipedalism, changes in the size and structure of the brain, and the development of culture.
7. Locate and describe the major bones of the human skeleton and identify characteristics of human skeletons or skulls such as gender, age, and ancestry.
8. Discuss current research in genome analysis of various hominid populations.

View Course Outcomes

HNRS 2110G The Present in the Past: Contemporary Issues and their Historical Roots 3 Credits (3)
This course will take todays concerns, trends, and customs and contextualize them in the past, explaining their historical origins and development. As an example, we will examine the history of celebrity and how celebrities -- from Lord Byron to the Kardashians made an impact on their contemporaries and the broader society of their time. This reading- and writing-intensive course will help students develop skills related to critical thinking, logical argumentation, and written and oral communication.
View Course Outcomes

HNRS 2111 Successful Fellowship Writing 1 Credit (1)
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
Crosslist: HON 314, for freshmen and sophomores
Learning Outcomes
1. Review of Prestigious International and National scholarships
2. Best practices in preparing competitive proposals and applications
3. Effective strategies for writing compelling Executive summaries, Resumes, and Personal Statements

View Course Outcomes

HNRS 2114G Music in Time and Space 3 Credits (3)
Introduction to all forms of Music. Through our auditory senses and intellectual faculties music is an ideal means for intelligent and humanistic examination of peoples and cultures, and for the enhancement of life. Types of music covered include classical, jazz, rock and roll, and world music. Music videos, live in-class performances, evening concerts, and lectures will be used as a basis for discussions and research.
View Course Outcomes

HNRS 2115G Encounters with Art 3 Credits (3)
A multicultural examination of the principles and philosophies of the visual arts and the ideas expressed through them.75
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3
View Course Outcomes

HNRS 2116G Earth, Time and Life 4 Credits (4)
Historical and critical examination of women's contributions worldwide with emphasis on the issues of representation that have contributed to exclusion and marginalization of women and their achievements.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2117G The World of the Renaissance: Discovering the Modern 3 Credits (3)
An introduction to the literature and thought of Renaissance Europe. Humanism and the Reformation will be approached through the intensive study of major writers such as Petrarch, Machiavelli, Luther, Erasmus, Montaigne, and Shakespeare.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2120G Foundations of Western Culture 3 Credits (3)
Critical reading of seminal texts relating to the foundations of culture and values in Western civilization, from ancient Greece to about 1700. Focus on the development of concepts of nature, human nature, and the state.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2130G Shakespeare on Film 3 Credits (3)
How do Shakespeare's plays continue to speak to us through the medium of film? Written in a time of rapid social change. Shakespeare's plays invited audiences to think critically about the relationship between the self and others and to question conventions. Performances of Shakespeare have long been used to call out social injustice, from western anti-Semitism prior to World War II (The Merchant of Venice), to civil rights-era white supremacy in the US and apartheid in South African (Othello), and authoritarianism in the Arab Spring (Richard III). This course focuses on post-1980 Hollywood film versions of Shakespeare's plays and a few prior landmark adaptations around the world, examining how they use Shakespeare as a medium for debate and even a catalyst for social change.
View Course Outcomes

HNRS 2140G Plato and the Discovery of Philosophy 3 Credits (3)
Examines arguments and theories found in the Platonic dialogues with a view to determining the nature and value of philosophy both from Plato's point of view and absolutely.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2141G Bamboo and Silk: The Fabric of Chinese Literature 3 Credits (3)
Introductory survey of traditional and modern Chinese prose and poetry in translation with emphasis on genre, theme, and social/historical context.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2145G Celtic Literature 3 Credits (3)
This course provides an overview of the most important early literary works of the so-called Celtic nations, principally Ireland and Wales, from a literary and historical approach. This literature stems from the period 600-1200 and ends with the development of the Romances under influence from the French.
View Course Outcomes

HNRS 2160G New Testament as Literature 3 Credits (3)
Literature of the New Testament examined from a literary perspective. Emphasis on translation history of the New Testament, generic features of gospel, epistle and apocalypse, precedent literary models, problems of authorship, classification of New Testament texts.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2161G Window of Humanity 3 Credits (3)
Anthropology is the most humanistic of the sciences, and the most scientific of the humanities. This course will use anthropological perspectives to examine the human experience from our earliest origins, through the experiences of contemporary societies. We will gain insights into the influence of both culture and biology on shaping our shared human universals, and on the many ways in which human groups are diverse.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2165G Introduction to Humanities in the 21st Century 3 Credits (3)
An exploration of the humanities, of their intrinsic and extrinsic values, and of the skills and habits of mind they cultivate.
View Course Outcomes

HNRS 2170G The Human Mind 3 Credits (3)
The primary course objective is to develop an appreciation of the variety and complexity of problems that are solved by the human mind. The course explores how problems are solved by a combined computational analysis (computational theory of mind), and evolutionary (evolution by natural selection) perspective. The mind is what the brain does (i.e. information processing) and the brain is a computational device that is a product of evolution by natural selection. Note that this is not a neuroscience course, we will be focusing on the mind (what the brain does) rather than on the brain.
View Course Outcomes

HNRS 2171G The Worlds of Arthur 3 Credits (3)
Arthurian texts and traditions from medieval chronicles to contemporary literature. Emphasis on both the continuities of the Arthurian tradition and the diversity of genres, media, and cultures that have given expression to the legend.
View Course Outcomes

HNRS 2172G Archaeology: Search for the Past 3 Credits (3)
A critical evaluation of various approaches to understanding prehistory and history. The methods and theories of legitimate archaeology are contrasted with fantastic claims that invoke extraterrestrials, global catastrophes, transoceanic voyages, and extra-sensory perception. Repeatable: up to 3 credits.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2173G Medieval Understandings: Literature and Culture in the Middle Ages 3 Credits (3)
Intensive, interdisciplinary introduction to the thought and culture of medieval Europe. Core texts will include works by St. Augustine, Marie de France, and Dante, as well as anonymous works such as Sir Gawain and the Green Knight, all supplemented by study of medieval art, architecture, philosophy, and social history.
View Course Outcomes

HNRS 2175G Principles of Human Communication Honors 3 Credits (3)
Study and practice of interpersonal, small group, and presentational skills essential to effective social, business, and professional interaction.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2176 Acting for Everyone 3 Credits (3)
To provide fundamental training in acting techniques, including stage voice and movement, improvisation, ensemble building, characterization, emotion exploration and basic performance analysis. The course will provide a correlation between theatre skills and everyday life skills and seek to encourage an appreciation for the art of theatre.
Learning Outcomes
1. Improve effectiveness of oral communication.
2. Enhance creativity and appreciation of theatre.
3. Build confidence and expressiveness.

View Course Outcomes

HNRS 2178G Theatre: Beginnings to Broadway 3 Credits (3)
Intercultural and historical overview of live theatre production and performance, including history, literature and professionals. Students attend and report on stage productions.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2180G Citizen and State Great Political Issues 3 Credits (3)
The fundamental questions of politics: why and how political societies are organized, what values they express, and how well they satisfy those normative goals and the differing conceptions of citizenship, representation, and freedom.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2185G Democracies, Despots and Daily Life 3 Credits (3)
This course will offer students the chance to read firsthand accounts of ordinary citizens' lives under different political systems, from the earliest age to the present day. This reading- and writing-intensive course will help students develop skills related to critical thinking, logical argumentation, and written and oral communication.
View Course Outcomes

HNRS 2190G Claiming a Multiracial Past 3 Credits (3)
Survey of history of the United States in the nineteenth and twentieth centuries, with an emphasis on multicultural social and cultural history. Focus on understanding American history from the point of view of dispossessed, impoverished, and disenfranchised Americans who have fought to claim both their rights as Americans and American past.
Prerequisite(s): An ACT score of 26 or higher; or a combination of an ACT score of 24-25 with a High School GPA of 3.75; or a cumulative GPA of 3.5 or higher
View Course Outcomes

HNRS 2996 Topics in Honors 1-3 Credits
Special course offerings, with unique titles listed in Schedule of Classes.
Repeatable: up to 6 credits
View Course Outcomes

Horticulture (HORT)

HORT 1110 Introduction to Horticulture 3 Credits (3)
An introduction to principles and practices of horticulture as a science and its practical applications. Includes an introduction to plant anatomy, classification and identification, physiology, genetics, and propagation as they apply to horticulture.
Learning Outcomes
1. Demonstrate an understanding of basic plant biology concepts in plant morphology, anatomy, taxonomy, physiology, reproduction, and genetics.
2. Recognize plant responses to biotic and abiotic environmental conditions.
3. Students will facilitate plant growth, solve problems, and demonstrate principles revealed with hormone, propagation, nutrition, water, and soil modification.
4. Understand and apply general horticulture principles and practices.
5. Understand career opportunities in horticulture.

View Course Outcomes

HORT 1115G Introductory Plant Science 4 Credits (4)
Introduction to the physical, biological, and chemical principles underlying plant growth and development in managed ecosystems. In the laboratory portion of the class, students perform experiments demonstrating the principles covered in lecture. The course uses economic plants and agriculturally relevant ecosystems to demonstrate basic principles. Appropriate for nonscience majors. (3+2P)Crosslist: AGRO 1110G. Provides lab.
Provides Lab
View Course Outcomes

HORT 2110 Ornamental Plants I 4 Credits (4)
This covers identification, botanical characteristics, culture, and landscape uses of woody plants. Emphasis will be on deciduous trees, native shrubs, and evergreens. (2+3P)
Learning Outcomes
1. Given 35 ornamental plants selected from the course's plant list, 100% of students will be expected to correctly identify the genus, species, and common names of the plants with 70% accuracy.
2. Given plants selected from the course's plant list, 100% students will be expected to identify to landscape use of those plants with 85% accuracy.

View Course Outcomes

HORT 2120 Ornamental Plants II 4 Credits (4)
Identification, botanical characteristics, culture, and landscape uses of woody plants. Emphasis on flowering trees, cacti, and members of the pea and rose families. (2+3P)
Learning Outcomes
1. Given 35 ornamental plants selected from the course's plant list, 100% of students will be expected to correctly identify the genus, species, and common names of the plants with 70% accuracy.
2. Given plants selected from the course's plant list, 100% students will be expected to identify to landscape use of those plants with 85% accuracy.

View Course Outcomes

HORT 2130 Floral Quality Evaluation and Design 2 Credits (2)
Critical hands-on evaluation of the quality of cut and potted floral and tropical foliage crops, their specific merits and faults, and fundamentals of floral design. (1+2P)
Learning Outcomes
1. Identify common floriculture crops or know resourcing to help identify the crop.
2. Evaluate quality (merit and fault) of common floriculture crops, based on industry standards and merit. Pi Alpha Xi and American Floral Endowment standards will be used for the purpose of this class.
3. Have a basic understanding of the floriculture industry and identify career pathways within the industry.
4. Know, understand, creatively interpret, and execute basic principles of design in regard to floral design.
5. Use interpersonal communication, problem solving, basic math, and marketing during cash and carry "lab" time (flower sales) in developing job ready skills in floristry.
6. Layer principles of design, marketing, sales, and time management to create floral art in real-world scenarios.

View Course Outcomes

HORT 2160 Plant Propagation 3 Credits (3)
Practical methods of propagating horticultural plants by seed, cuttings, layering, grafting, division and tissue culture. Examination of relevant physiological processes involved with successful plant propagation techniques. (2+2P)
Crosslist: AGRO 2160
Learning Outcomes
1. Practical methods of propagating plants by seed, cuttings, layering, grafting, division, and tissue culture through experiential, "hands-on" laboratories.
2. . Relevant physiological principles involved in propagating horticultural plants through lecture discussions and readings.

View Course Outcomes

HORT 2990 Practicum in Horticulture 1 Credit (1)
Varies.
View Course Outcomes

HORT 2996 Topics in Horticulture 1-4 Credits
Varies.
View Course Outcomes

Hospitality and Tourism (HOST)

HOST 155 Special Topics 1-3 Credits
Specific subjects to be announced in the Schedule of Classes.
View Course Outcomes

HOST 201 Introduction to Hospitality Industry 3 Credits (3)
Overview of hospitality industry; organization and operation of lodging, food and beverage, and travel and tourism segments; focus on career opportunities and future trends of hospitality industry.
View Course Outcomes

HOST 202 Front Office Operations 3 Credits (3)
Hotel/motel front office procedures detailing flow of business, beginning with reservations and extending to the night audit process.
View Course Outcomes

HOST 203 Hospitality Operations Cost Control 3 Credits (3)
Management of Food & Beverage facilities using cost control techniques. Functional training in menu analysis and development with all phases of product flow through a Food & Beverage organization explored.
View Course Outcomes

HOST 204 Promotion of Hospitality Services 3 Credits (3)
Organization of hotel marketing functions; developing a marketing plan to sell the varied services of the hotel/motel property.
View Course Outcomes

HOST 205 Housekeeping, Maintenance, and Security 3 Credits (3)
Function of housekeeping departments, including personnel, sanitation, maintenance, and materials. A survey of security procedures to include guest protection and internal security of hotel/motel assets.
View Course Outcomes

HOST 206 Travel and Tourism Operations 3 Credits (3)
Transportation, wholesale and retail operations, attractions, the traveler, tourism development, and operational characteristics of tourism business.
View Course Outcomes

HOST 208 Hospitality Supervision 3 Credits (3)
Strategies for directing, leading, managing change and resolving conflict. Prepares students to meet expectations of management, guests, employees, and governmental agencies.
View Course Outcomes

HOST 210 Catering and Banquet Operations 3 Credits (3)
Teaches the basics of catering and banquet operations, including computer coordination, planning, set up, service, and completion.
View Course Outcomes

HOST 214 Purchasing and Kitchen Management 3 Credits (3)
Technical purchasing concepts, product selection, and specifications. Safety and sanitation as they relate to food service establishments. Prepares student for work with HACCP programs.
Prerequisite(s): HOST 203
Repeatable: up to 3 credits
View Course Outcomes

HOST 216 Event, Conference and Convention Operations 3 Credits (3)
The ability to successfully plan, organize, arrange, and execute special events is critical to the success of many hospitality organizations. This course gives the student a grounding in the skills necessary to achieve success in this area. A variety of events are discussed and the similarities and differences with conferences and conventions are explored. Students are taught to organize and plan events of varying type and durations. Sales, logistics, and organizing skills are emphasized.
View Course Outcomes

HOST 219 Safety, Security and Sanitation in Hospitality Operations 3 Credits (3)
It is the responsibility of the manager to provide appropriate security, sanitation, and safety precautions in hospitality operations. Preparation for internal and external disasters is an important task for the Hospitality Manager. This course uses the National Restaurant Association ServSafe training material.
View Course Outcomes

HOST 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. Restricted to: HOST majors. Graded: S/U Grading (S/U, Audit)
Repeatable: up to 3 credits
View Course Outcomes

HOST 222 Cooperative Experience II 3 Credits (3)
Continuation of HOST 221. Restricted to majors. Graded: S/U. Restricted to HOST majors.
Prerequisite(s): HOST 221
View Course Outcomes

HOST 239 Introduction to Hotel Management 3 Credits (3)
This course covers basic management functions in hotels, resorts, Boutique Hotels, Bed & Breakfast establishments, and other lodging operations. All aspects of the operation are covered including guest management, operations, and sales and marketing.
View Course Outcomes

HOST 255 Special Topics 3 Credits (3)
Specific subjects to be announced in the Schedule of Classes.
Repeatable: up to 9 credits
View Course Outcomes

HOST 298 Independent Study 1-3 Credits
Individual studies directed by consenting faculty with prior approval of department chair.
Prerequisite(s): Minimum 3.0 GPA and sophomore standing
Repeatable: for a maximum of 3 credits
View Course Outcomes

Hotel/Restaurant/Tourism Management (HRTM)

HRTM 1110 Freshman Orientation 3 Credits (3)
Orientation to college life, including available resources and methods to promote success. Open to all freshmen and transfer students. Graded S/U.
Learning Outcomes
1. Identify career opportunities in hospitality and tourism.
2. Understand skills and characteristics desired by potential employers of Hotel, Restaurant and Tourism students.
3. Develop greater appreciation of current trends in the hospitality and tourism industry.
4. Become more familiar with faculty and staff in the School of Hotel, Restaurant and Tourism Management and resources available to students in the department.
5. Refine written and verbal communication skills.

View Course Outcomes

HRTM 1120G Introduction to Tourism 3 Credits (3)
Survey of travel and tourism development and operating characteristics.
View Course Outcomes

HRTM 1130 Introduction to Hospitality Management 3 Credits (3)
Overview of the major segments of the hospitality industry, with a focus on basic management principles.
Learning Outcomes
1. Understand the concept of management contracts and franchising.
2. Recognize and understand needed leadership qualities to achieve organizational objectives.
3. Understand the hospitality industry within the global environment.
4. Identify company and industry trends.
5. Understand the functions of all departments in a hospitality organization (restaurant, hotel, club, etc.).
6. Apply the concepts of convention management, meeting and event planning, and casino management.
7. Understand the concepts of quick and institutional/contract foodservice management.
8. Understand the principles of bar management and compare and contrast wines, beers and distilled spirits.
9. Manage the process of service delivery. 1
10. Identify and solve managerial problems 1
11. Manage a diverse workforce and develop positive employee relations to reduce turnover.

View Course Outcomes

HRTM 2110 Safety, Sanitation and Health in the Hospitality Industry 1 Credit (1)
Addresses public health, HACCP, and food safety responsibilities in the hospitality industry. Sanitation certification test allows students to receive national ServSafe Food Protection Manager Certification.
Learning Outcomes
1. Identify the hazards to safe food and the foods at risk in a foodservice operation.
2. Identify and discuss the Hazard Analysis Critical Control Point (HACCP) system and be able to design a HACCP flowchart.
3. Demonstrate knowledge of how to protect food during purchasing, receiving, storing, preparing, holding, and serving.
4. Discuss the procedures for ensuring sanitary equipment, facilities, and food-handling practices.
5. Explain how to set-up cleaning, safety, pest control, crisis management, and training programs.

View Course Outcomes

HRTM 2120 Food Production and Service Fundamentals 3 Credits (3)
Basic overview of food service systems including menu management, purchasing and production. The course includes basic principles of food fabrication and production. Topics include knife skills, culinary terminology, product identification, quality standards, nutritional cooking theory and application of food preparation techniques. The course includes laboratory aspects and demonstration of basic food production techniques, service styles, practices and procedures in food service operations including culinary math. This course provides students with an understanding of food service sanitation and culinary nutrition. Completion of a national certification examination is required. Provides lab.
Prerequisite(s): HRTM 1130 or FSTE 2110G
Prerequisite(s)/Corequisite(s): HRTM 2110
Provides Lab
Learning Outcomes
1. Demonstrate use of standard recipes and how to reduce and increase their yields.
2. Demonstrate basic culinary knife cuts, basic fabrication and mise en place
3. Demonstrate basic cookery techniques of dry, moist and a combination of heat
4. Demonstrate the proper plating and garnishing of foods
5. Describe proper personal behaviors required for the safe handling of food
6. Identify and properly operate kitchen equipment.
7. Pass the ServSafe Exam
8. Describe the three forms of food contaminants and preventative measures.
9. Demonstrate how to properly "set" a table for service 1
10. Demonstrate how to provide dining room service with proper etiquette 1
11. Demonstrate safe work habits, identify safety hazards, and employ preventative safety measures. 1
12. Maintain positive relations with fellow students and faculty through teamwork. 1
13. Exhibit appropriate work habits and attitudes; demonstrate a willingness to compromise. 1
14. Demonstrate a positive attitude, conversation skills, personal hygiene and work attire.

View Course Outcomes

HRTM 2130 Hotel Operations I 3 Credits (3)
Analysis of hotel operations to include: guest services, reservations, reception, guest/city ledger and the night audit. Repeatable: up to 3 credits.
Prerequisite(s): HRTM 1130
Learning Outcomes
1. Outline the history, magnitude and culture of the hotel industry
2. Define and identify hotel ownership and operational structures
3. Outline the organization and structure of a hotel and resort.
4. Describe and calculate the components and processes of room reservation forecasting, pricing and revenue management.
5. Outline and explain the flow of the guest from pre-arrival through arrival, room occupancy and departure.
6. Demonstrate the procedures and processes for Guest Accounting, the City Ledger, Guest Credit and the Night Audit.
7. Discuss problem solving and guest service associated with the front office and other departments of the hotel and resort.
8. Forecast impacts of technology to the guest services and hotel operations
9. Describe the day to day activities and responsibilities of a Hotel Front Office Manager or a Hotel Assistant General Manager (AGM).

View Course Outcomes

HRTM 2996 Topics in Hotel, Restaurant, & Tourism Management 1-4 Credits
Specific subjects and credits to be assigned on a semester basis for both lecture and laboratory assignments. Repeatable: for a maximum of 4 credits.Provides lab.
Provides Lab
Learning Outcomes
1. Develop knowledge of and skills in specific areas of importance for the hospitality and tourism industry.
2. Refine written and verbal communication skills.
3. Perform research and secondary data analysis on a specific hospitality and tourism industry segment or industry trend.

View Course Outcomes

Human Services (HMSV)

HMSV 2110 Case Management 3 Credits (3)
This course introduces students to the concept of case management, how it is used in human services, and skills necessary to function effectively as case managers. The emphasis is on the client assessment process, service planning and delivery, and client advocacy. Topics introduced include observation, data collection, documentation, and reporting of client behaviors, identification and referral to appropriate services, monitoring, planning, and evaluation. This course provides student with basic knowledge and beginning case management skills. Repeatable: up to 3 credits.
Prerequisite(s): PSYC 1110G and SOWK 2110G
Learning Outcomes
1. Define the purpose of case management and explain the role of the case manager
2. Explain the process of case management and what it entails
3. Explain the ethical, professional and legal responsibilities of case managers
4. Describe several settings within which case management takes place
5. Apply principles of client record management, and protect client rights to privacy and confidentiality
6. Use data to determine the appropriate referral service to professional, agencies, community programs or other resource, and clearly and specifically explain the referral service's role in treatment and contact information
7. Apply standards of clinical evaluation, including establishing rapport, data gathering and screening, analysis of substance abuse implications, treatment possibilities, initial actions, and documentation of findings and treatment recommendations
8. Incorporate individual and cultural relevance in concert with established situation-specific policies and procedures for crisis management

View Course Outcomes

Industrial Engineering (I E)

I E 151 Computational Methods in Industrial Engineering 3 Credits (3)
History, social implications, and application of computers and an introduction to computer programming, word processing, and database management systems. Satisfies General Education computer science requirement.
Prerequisite(s): MATH 1220G
View Course Outcomes

I E 217 Manufacturing Processes 3 Credits (3)
Introduction to manufacturing and processing, including: casting, forming, and machining. Emphasis on creating products with the appropriate techniques.
Prerequisite(s): E T 110 and MATH 1220G
Crosslist: E T 217
View Course Outcomes

Industrial Maintenance (INMT)

INMT 133 Process Technology and Systems 4 Credits (4)
Provides instruction in the use of common process equipment. Students will use appropriate terminology and identify process equipment components such as piping and tubing, valves, pumps, compressors, turbines, motors, engines, heat exchangers, heaters, furnaces, boilers, filters dryers and other miscellaneous vessels. Included are the basic functions, scientific principles and symbols. Students will identify components on typical Process Flow Diagrams and Process and Instrument Diagrams.
View Course Outcomes

INMT 134 Maintenance Principles 4 Credits (4)
The course is an introduction to the maintenance of equipment utilizing mechanical, electrical and instrumentation concepts. Topics include: hand tools, bearing fundamentals, equipment lubrication, material handling, electrical safety, battery systems, diagrams, electrical production and distribution, transformers, breakers, switches, AC and DC motors, motor controllers and operations, and introduction to automation and instrumentation control.
View Course Outcomes

INMT 165 Equipment Processes 4 Credits (4)
This course introduces power transmission equipment and machinery components, including belt/chain driven equipment, speed reducers, variable speed drives, couplings, clutches, and conveying equipment. Students will learn the operation, maintenance, and troubleshooting for these types of equipment. The course also includes Overhead Crane Certification and Safety.
View Course Outcomes

INMT 205 Programmable Logic Controllers and Applications 4 Credits (4)
Students learn about programmable logic controllers; architecture; programming, interfacing, and applications. Hands-on experience on modern commercial PLC units is the main component.
Prerequisite(s): BCIS 1110
View Course Outcomes

INMT 223 Electrical Repairs 4 Credits (4)
This course outlines for students the types of problems that occur in electrical machinery and systems. The course covers trouble-shooting and diagnosis, preventative maintenance, and how to make necessary repairs.
View Course Outcomes

INMT 235 Mechanical Drives I 4 Credits (4)
This course teaches the fundamentals of mechanical transmission systems used in industrial, agricultural, and mobile applications. Students will learn industrial relevant skills including how to: operate, install and analyze performance, and design basic transmission systems using chains, feed-belts, spur gears, bearings, and couplings. Vibration analysis will be used to determine when to perform maintenance of power transmission components. The course also covers power transmission safety, and introduction to belt and chain drives (applications, installations, and tensioning), and introduction to gear drives, coupling, and bearing, basic troubleshooting, blueprint and print reading, learning the basics of electrical drives and PDM and PM.
View Course Outcomes

INMT 237 Hydraulics I 2 Credits (2)
This course teaches fundamentals of hydraulic systems used in industry mobile application. Students learn the basic theory of application of hydraulic and electricity as it applies to hydraulics. Covered in the course are basic systems, principles of flow, pressure, viscosity, filtration, and colling. Also covered are basic components such as motor, pumps, cylinders, piping and control and relief valves. Troubleshooting strategies are discussed, along with blueprint and print reading, and PDM and PM. Industry, relevant skills including how to operate, install, analyze performance, and design basic hydraulic systems, reviewing intermediate hydraulic components and system applications.
View Course Outcomes

INMT 261 Pump Operations I 4 Credits (4)
This course teaches how to select, operate, install, maintain and repair the many types of pumps used by industry. Students learn the theory and practical application of all types of processed pumps and pipe systems. It covers types, components, and systems operation. It also covers troubleshooting for flow loss and cavitation. Students learn how to select, operate, install, maintain and repair the many types of pumps used by industry. Other topics covered include: Net Positive Suction Head, pump flow/head measurement, pressure head conversion, pressure flow characteristics, cavitation, series/parallel pump operation, mechanical seal/stuffing box maintenance, multi stage operation and construction, positive displacement pumps, turbine, diaphragm, peristaltic, piston, gear, and magnetic pump systems.
View Course Outcomes

INMT 262 Piping Systems 2 Credits (2)
This course teaches students how to install, maintain and troubleshoot fluid systems such as how to select, size, identify, install a variety of types of piping, fittings, and valves. Measurement techniques from basic to precision measurement, gauging, including the fundamentals of dimensioning and tolerancing will taught.
View Course Outcomes

INMT 263 Mechanical Drives II 4 Credits (4)
This course teaches the bearings and gears used in heavy duty mechanical transmission systems. This course will emphasize linear access drives, clutches, and brakes. In addition, this course teaches how to set up, operate and apply laser shaft alignment to a variety of industrial applications. This course is a study of the basic concepts and procedures for the maintenance and operations of pumps, turbines, seals, bearings, and compressors. The course will provide the student with the knowledge and skills necessary to perform proper maintenance, repair, replacement and selection of pumps, turbines, seals, bearings and compressors. Also covered are advanced gearbox, coupling and bearings, precision alignment (shaft, flange, and sheave), as well as basic vibration analysis and thermography as troubleshooting and RCA aids.
View Course Outcomes

INMT 264 Rigging 2 Credits (2)
This course teaches how to safely move loads of different shapes and sizes using a variety of different methods. Students will lift loads and demonstrate how to move it. Students will use hoists, slings, ropes and fittings to learn how to safely lift a wide variety of loads. Included are weight estimation, lifting rules, load ratings (sling, wire, ropes and hoists).
View Course Outcomes

INMT 265 Hydraulics II 2 Credits (2)
This course teaches advanced hydraulics systems. The student will learn operation of advanced hydraulic systems applications, equipment installation, performance analysis of motors and pumps, accumulators, control, relief and check valve, equipment maintenance, and system design. The course covers accumulators, sequence valves, pilot circuits and unloader valves. Students learn more troubleshooting, hydraulic drives and other applications.
View Course Outcomes

INMT 267 Pump Operations II 2 Credits (2)
This course teaches the student the disassembly, inspection and reassembly of centrifugal and positive displacement pumps. This course allows the student to identify and replace worn or broken components of pumps, and learn predictive and preventive maintenance principles. Lockout of the pump will be performed in addition to measurements and alignment.
View Course Outcomes

Instrument & Control Technology (INST)

INST 133 Process Technology and Systems 4 Credits (4)
Provides instruction in the use of common process equipment. Students will use appropriate terminology and identify process equipment components such as piping and tubing, valves, pumps, compressors, turbines, motors, engines, heat exchangers, heaters, furnaces, boilers, filters dryers and other miscellaneous vessels. Included are the basic functions, scientific principles and symbols. Students will identify components on typical Process Flow Diagrams and Process and Instrument Diagrams. Restricted to: Instrumentation and Control Technology majors
View Course Outcomes

INST 165 Equipment Processes 4 Credits (4)
This course introduces Thermal Energy and Mechanical alignment in equipment and machinery components. Students will learn the operation, maintenance, and troubleshooting of these types of equipment. Restricted to: Instrumentation and Control majors.
View Course Outcomes

INST 205 Programmable Logic Controllers and Applications 4 Credits (4)
This learning system is set up in a self-directed format where students can proceed forward at their own pace. The directions are provided in a series of Learning Activity Packets (LAPs), which include text and lab activity directions. LAPs book will be handed out at the start of every class day and must be returned before the class day begins. This learning system can be used as a stand-alone teaching learning system within any class to give hands-on experience in electrical systems. Computer Literacy and internet literacy is required to enroll in this course. Restricted to: Instrumentation and Control Technology majors.
View Course Outcomes

INST 251 Instrumentation and Measurement 5 Credits (5)
The overall aim of this course is to present the students with the basic principles and techniques required for the design and analysis of measurement systems. The course introduces the theory of measurement as well as the sensors and instruments typically used for measuring various physical quantities.
View Course Outcomes

Integrated Natural Sciences (NSC)

Japanese (JAPN)

JAPN 1110 Japanese I 4 Credits (4)
This course focuses on the basics of the Japanese language with a balanced approach to the development of four skills: listening, speaking, reading and writing. The course is designed to teach students to communicate with Japanese socially and to utilize culturally appropriate manners to engage in Japanese daily life. While conversational skills are emphasized, the student will also be introduced to the various Japanese scripts.
Learning Outcomes
1. Become introduced to the sound system of the Japanese language.
2. Gain a basic understanding of Japanese scripts.
3. Learn and utilize vocabulary needed for basic conversation.
4. Converse and write on topics related to immediate personal needs, greetings, introductions, personal data, daily routines and school.
5. Comprehend both artificial and authentic written and aural texts of short length on familiar topics.
6. Comprehend and use essential grammar concepts.
7. Identify patterns of cultural behavior or customs in Japan, including gestures, greetings, and body language.
8. Gain the ability to converse using Japanese idiomatic expressions.

View Course Outcomes

JAPN 1120 Japanese II 4 Credits (4)
This course focuses on building upon the basics of the Japanese language with a balanced approach to the development of four skills: listening, speaking, reading and writing. The course is designed to teach students to communicate with Japanese socially and to utilize culturally appropriate manners to engage in Japanese daily life. Along with further developing conversational skills, the student will also continue to learn about and utilize various Japanese scripts.
Learning Outcomes
1. Understand and utilize in more depth the sound system of the Japanese language.
2. Gain a greater understanding of Japanese scripts.
3. Utilize expanded vocabulary in conversation.
4. Converse and write on topics related to personal, social, geographical, and political life.
5. Comprehend both artificial and authentic written and aural texts of longer, but still brief length, such as personal letters, messages, journals, and narrative accounts.
6. Comprehend and use essential and more complex grammatical concepts.
7. Continue to develop a sense of culturally appropriate conduct.
8. Build upon the ability to converse using Japanese idiomatic expressions.

View Course Outcomes

JAPN 2110 Japanese III 3 Credits (3)
This course is designed for students who have completed 12 credit hours or the equivalent of Japanese study. This course continues to expand vocabulary, grammar and 209 Kanji to deal with daily activities. Its objective is to teach students to communicate in a meaningful way using all four language skills: speaking, listening comprehension, reading and writing. Students will be able to manage not-complicated daily situation. Students will attain ACTFL intermediate-low level in four skills.
Learning Outcomes
1. participate in conversations on familiar topics, such as applying part-time job, gift giving/receiving, planning a trip, lost and found, using sentences and short series of sentences.
2. handle short social interactions in everyday situations by asking and answering a variety of questions.
3. usually say what they want to say about themselves and their everyday life.
4. write on a variety of familiar topics in Japanese characters using connected sentences.
5. understand the main idea in messages and presentations in Japanese on a variety of topics related to everyday life and personal interests and studies.
6. sometimes understand the main idea of conversations that they overhear.
7. understand the main idea of texts in Japanese characters related to everyday life and personal interests or studies.
8. describe and make comparisons between cultures about beliefs, behaviors and cultural artifacts in Japan.

View Course Outcomes

JAPN 2120 Japanese IV 3 Credits (3)
This course is designed for students who have completed 15 credit hours or the equivalent of Japanese study. This course continues to expand vocabulary, grammar and 271 Kanji to deal with not-complicated daily situation with ease. Also, students acquire a competence for Japanese pragmatic usage. This course follows ACTFL language guidelines, integrating the five C's: communication, cultures, connections, comparisons and communities, to offer the student a well-rounded classroom experience. Students will attain ACTFL intermediate-mid level in four skills.
Learning Outcomes
1. participate with ease and confidence in conversations on familiar topics, such as relationships, par-time job, shopping with a variety of request, meeting socially superiors.
2. usually describe people, places, and things, and talk about events and experiences in various time frames.
3. handle social interactions in everyday situations, sometimes even when there is an unexpected complication.
4. write about topics related to school, work, and community in a generally organized way in Japanese characters.
5. write some simple paragraphs in Japanese characters about events and experiences in various time frames.
6. easily understand the main idea in messages and presentations on a variety of topics related to everyday life and personal interests and studies.
7. usually understand a few details of what they overhear in conversations, even when something unexpected is expressed.
8. sometimes follow what they hear about events and experiences in various time frames.
9. understand the main idea of texts in Japanese characters with topics related to everyday life, personal interests, and studies, as well as sometimes follow stories and descriptions about events and experiences in various time frames. 1
10. describe and make comparisons between cultures about beliefs, behaviors and cultural artifact in Japan. 1
11. start using languages in a culturally appropriate way based on the understanding of cultural similarities and differences, including the use of "honorific" and "humble" expression.

View Course Outcomes

Library Science (LIBR)

LIBR 1110 Introduction to Research 1 Credit (1)
The goal of this course is to provide students with techniques and tools to become better researchers. This course introduces students to the research process, and the organization, location, and evaluation of information.
Learning Outcomes
1. Develop a research plan based on an information need.
2. Find information efficiently and effectively using a variety of search tools.
3. Evaluate the reliability of an information resource.
4. Practice ethical behavior in using information.

View Course Outcomes

LIBR 1111 Introduction to Information Literacy in an Electronic Environment 3 Credits (3)
Introduction to the basics of the research process; the organization, location and evaluation of information using print, non-print and electronic resources; and techniques of effective personal information management in a computerized setting. Uses a combination of active and hands-on learning methods as well as lectures.
Learning Outcomes
1. Develop a discipline-specific research guide based on an established subject area.
2. Select appropriate information sources and use them to find information efficiently.
3. Evaluate information and its sources.
4. Practice ethical behavior in using information.

View Course Outcomes

Linguistics (LING)

LING 2110G Introduction to the Study of Language and Linguistics 3 Credits (3)
This course presents an introduction to the study of language through the basic aspects of linguistic analysis: the sound system (phonetics and phonology), the structure of words and sentences (morphology and syntax), and the ways in which language is used to convey meaning (semantics and pragmatics). In addition, the course will investigate how language is acquired and stored in the brain, and how differences in speech styles and dialects reflect different social and cultural backgrounds of individual speakers.
View Course Outcomes

Management (MGMT)

MGMT 2110 Principles of Management 3 Credits (3)
An introduction to the basic theory of management including the functions of planning, organizing, staffing, leading, and controlling, while considering management's ethical and social responsibilities.
Learning Outcomes
1. Explain the major functions of management including planning, organizing, communications, controlling, motivating, leading, and staffing.
2. Recognize major developments in the history of management thought.
3. Describe the basic managerial processes including decision-making and other key skills necessary for managers to perform their roles.
4. Identify an organization's stakeholders and the importance of social and ethical responsibility of managers.
5. Explain the formulation and implementation of strategic planning, including the relationship between goals, plans, vision statements, and mission statements.
6. Describe the strategies managers use to help organizations adapt to changing internal and external environments.
7. Explain organizational change, forces for change, sources of resistance to change, and the techniques managers can use to implement and facilitate change.

View Course Outcomes

Marketing (MKTG)

MKTG 180 Level 1, PGA's PGM Education Program (Part 1) 3 Credits (3)
Level 1 Part 1 of the PGA PGM Education Program. Introduction to the Policies and Procedures of the PGA Golf Mgt. Program and the PGA of America. Students will complete the PGA Qualifying Level, Facility Management 1A (Tournament Ops A, Rules of Golf B, and Career Enhancement B), and the corresponding Work Experience Activities. Additional course fee required. MKTG majors.
View Course Outcomes

MKTG 181 Level 1, PGA's PGM Education Program (Part 2) 3 Credits (3)
Level 1 Part 2 of the PGA PGM Education Program. This class will focus on Teaching and Coaching 1, the corresponding PGA Work Experience Activities, and PGA Teaching Seminars. Additional course fee required. MKTG majors.
View Course Outcomes

MKTG 280 Level 1, PGA's PGM Education Program (Part 3) 3 Credits (3)
Level 1 Part 3 of the PGA PGM Education Program. This class will focus on Facility Management 1B (Business Planning A, Customer Relations A, Golf Car A, Merchandising A, Turfgrass A), Level 1 Checkpoint Exams, and the corresponding PGA Work Experience Activities. Students will also be required to provide an internship evaluation report. Additional course fee required. MKTG majors.
View Course Outcomes

MKTG 281 Level 2, PGA's PGM Education Program (Part 1) 3 Credits (3)
Level 2 Part 1 of the PGA PGM Education Program. This class will focus on Teaching and Coaching 2, Teaching and Coaching Seminars, and the corresponding PGA Work Experience Activities. Additional course fee required. MKTG majors.
View Course Outcomes

MKTG 1210 Advertising 3 Credits (3)
A survey of currently available advertising media. A psychological approach to consumer persuasion; applied techniques in media selection, layout mechanics, production methods, and campaign structures.
Prerequisite(s): MKTG 2110
Learning Outcomes
1. Define advertising and the relevant application of psychology in delivering the message.
2. Explain the importance of various advertising media in the marketing mix.
3. Identify and explain the social, ethical and legal issues advertisers must consider.
4. Describe the significance of the marketing function in business.
5. Explain the importance of advertising and other marketing communication tools.
6. Demonstrate application of the planning process as it applies to marketing and advertising.
7. Describe the factors that ae weighted when considering the use of radio and television in the creative advertising mix.
8. Describe the relationship between market segment, consumer behavior and selection of advertising campaign types.
9. List the alternative means of reaching a target market and the technical challenges of each.

View Course Outcomes

MKTG 1220 Small Business Marketing 3 Credits (3)
An overview of public relations principles, practices and purposes as applied to small business. Topics include basics of news release writing, media awareness, development and maintenance of a positive public image, branding, ethical marketing, and the relationships of public relations with advertising and marketing. Methods and practices used in small business are explored.
Prerequisite(s): MKTG 2110
Learning Outcomes
1. Explain the importance of creating and sustaining a positive public awareness and image.
2. Identify public relations practices as they relate to the management and marketing processes.
3. Define branding and discuss its importance for small business.
4. Describe the value of business event management and promotion for small business.
5. Discuss how media relations, public relations, advertising and marketing efforts are interrelated and the importance of each.

View Course Outcomes

MKTG 2110 Principles of Marketing 3 Credits (3)
Survey of modern marketing concepts and practices focusing on the marketing mix: product, pricing, promotion, and distribution strategies. Topics include; the marketing environment, consumer behavior, marketing research, target marketing, and the ethical and social responsibilities of marketers. Repeatable: up to 6 credits.
Prerequisite(s): BUSA 1110
Learning Outcomes
1. Describe the professional, ethical, and social responsibilities of marketers.
2. Explain the role of the product in the marketing mix, including the product life cycle, the relevance of product innovation, and product classifications.
3. Illustrate the role of promotion in the marketing mix, including the communication process and the promotional mix.
4. Explain the role of price in the marketing mix, including pricing objectives, pricing policies, and pricing methods.
5. Describe the operation of channels of distribution and supply chains, including functions of intermediaries and degrees of coverage.
6. Define the concepts of target markets and market segmentation with respect to elements of the marketing mix.
7. Explain the importance of market research and information systems in supporting marketing decision- making.
8. Describe the dynamic environment(s) in which marketing decisions must be made.

View Course Outcomes

MKTG 2220 Digital Marketing 3 Credits (3)
This course focuses on planning to create and market a website. Internal 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.
Prerequisite(s): MKTG 2110
Learning Outcomes

1. Describe how search engines work. (Use knowledge to make recommendations to a website on how it can improve its organic search rankings – perform search engine optimization)

2. Describe the various methods of online display advertising.

3. Determine the appropriate key performance indicators (KPIs) for any type of website.

4. Describe and implement best practices in marketing to a database of current and potential customers via email.

5. Utilize knowledge of social media tactics to design an effective social media campaign.

6. Implement online reputation management tactics to improve the online reputation of a brand.

7. Develop and present a digital marketing plan for a small, local business.

View Course Outcomes

Mathematics (MATH)

MATH 120 INTERMEDIATE ALGEBRA 3 Credits (3)
View Course Outcomes

MATH 1130G Survey of Mathematics 3 Credits (3)
This course will develop students' ability to work with and interpret numerical data, to apply logical and symbolic analysis to a variety of problems, and/or to model phenomena with mathematical or logical reasoning. Topics include financial mathematics used in everyday life situations, statistics, and optional topics from a wide array of authentic contexts.
Prerequisite(s): adequate scoring on the Mathematics Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in CCDM 113 N or CCDM 114 N
View Course Outcomes

MATH 1134 Fundamentals of Elementary Mathematics I 3 Credits (3)
Numbers and the four operations of arithmetic. Understanding and comparing multiple representations of numbers and operations, in particular how these representations build from whole numbers to integers to fractions and decimals. Applying properties of numbers and operations in contextual situations. Reasoning, communicating, and problem solving with numbers and operations. Applications to ratio, and connections with algebra. Taught primarily through student activities and investigations.
Prerequisite(s): adequate soring on the Mathematics Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in MATH 1215 or higher.Restricted to: EDUC, EPAR,E ED,ECED majors
Learning Outcomes

1. As future elementary teachers you will be teaching mathematics to children.

2. In order to teach a subject well you need not only to know the material that you will teach, but you need to know more than what you will teach, and know it well, in order to be able to answer questions, understand student reasoning, give alternate explanations when your students do not understand something, and be able to adjust to changes in the mathematical curriculum.

3. Furthermore, even if you hope to teach a given grade, you should be prepared to teach a variety of grades since what a person ends up teaching is often not what they planned to do.

4. We will explore ideas of arithmetic in a way to help you improve your mathematical ability, gain confidence in your ability, introduce to you different ideas and models, and to see a variety of mathematical activities that are appropriate for people of all ages.

5. Everything we study will be done with the aim of developing your ability to relate to the mathematics of elementary school and to help children develop mathematical understanding.

View Course Outcomes

MATH 1215 Intermediate Algebra 3 Credits (3)
A study of linear and quadratic functions, and an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. A development of strategies for solving single-variable equations and contextual problems.
Prerequisite(s): adequate scoring on the Mathematic Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in CCDM 113 N or CCDM 114 N
Learning Outcomes

1. Demonstrate appropriate use of basic function language and notation.

2. Convert between equivalent forms of algebraic expressions.

3. Solve single-variable equations of the types listed above.

4. Interpret and communicate algebraic solutions graphically and numerically.

5. Demonstrate contextual problem-solving skills that include setting up and solving problems and interpreting solutions in context.

6. Apply appropriate problem-solving methods from among algebraic, graphical, and numerical.

View Course Outcomes

MATH 1217 General Supplemental Instruction I 1 Credit (1)
Collaborative workshop for students enrolled in Intermediate Algebra.
Graded: S/U Grading. (2P).
Corequisite(s): MATH 1215
Learning Outcomes
  1. Implement study skills specific to mathematics by being able to identify, define, memorize, and analyze key terms and concepts.
  2. Create and use math study guides and other visual aids.
  3. Apply study skills to master concepts introduced in MATH 121
  4. Utilize technology such as "My Math Lab" and other software programs in order to support learning in MATH 121

View Course Outcomes

MATH 1220G College Algebra 3 Credits (3)
The study of equations, functions and graphs, reviewing linear and quadratic functions, and concentrating on polynomial, rational, exponential and logarithmic functions. Emphasizes algebraic problem solving skills and graphical representation of functions.
Prerequisite(s): adequate scoring on the Mathematics Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in MATH 1215 or higher
View Course Outcomes

MATH 1221 General Supplemental Instruction II 1 Credit (1)
Collaborative workshop for students enrolled in College Algebra. Graded: S/U Grading (S/U, Audit). (2P)
Corequisite(s): MATH 1220G
Learning Outcomes
  1. Students will be able to define and evaluate the trigonometric functions as functions of angle in both degree and radian measure using the definitions in terms of x, y, and r; as the ratio of sides of a right triangle; using the unit circle; using reference angles, commonly used (0 o, 30 o, 45 o, 60 o, 90o) angles and using a calculator.
  2. Students will be able to solve right triangles. They will be able to draw a sketch in an applied problem when necessary.
  3. Students will be able to solve non-right triangles using the law of sines and the law of cosines.
  4. Students will be able to prove trigonometric identities and apply addition and subtraction, double-angle, half-angle and power reduction formulas.
  5. Students will be able to graph the six trigonometric functions, their transformations and their inverses.
  6. Students will be able to use algebraic methods, including the use of identities and inverses, to solve trigonometric equations and demonstrate connections to graphical and numerical representations of the solutions.
  7. Students will be able to add and subtract vectors in two dimensions. They will be able to use the dot product to project one vector onto another and to determine the angle between two vectors. They will be able to solve a variety of word problems using vectors.
  8. Students will be able to work with polar coordinates; this includes graphing in polar coordinates and transforming an equation with polar coordinates into one with rectangular coordinates, and vice versa.
  9. Students will be to work with the trigonometric form of complex numbers, including using De Moivre's formula.

View Course Outcomes

MATH 1250G Trigonometry & Pre-Calculus 4 Credits (4)
Trigonometry & Pre-Calculus includes the study of functions in general with emphasis on the elementary functions: algebraic, exponential, logarithmic, trigonometric and inverse trigonometric functions. Topics include rates of change, limits, systems of equations, conic sections, sequences and series, trigonometric equations and identities, complex number, vectors, and applications. Note: 80% of course must include 80% of Trigonometry SLOs and 80% of Pre-Calculus SLOs.
Prerequisite(s): adequate scoring on the Mathematics Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in MATH 1220G or higher
View Course Outcomes

MATH 1350G Introduction to Statistics 3 Credits (3)
This course discusses the fundamentals of descriptive and inferential statistics. Students will gain introductions to topics such as descriptive statistics, probability and basic probability models used in statistics, sampling and statistical inference, and techniques for the visual presentation of numerical data. These concepts will be illustrated by examples from a variety of fields.
View Course Outcomes

MATH 1430G Applications of Calculus I 3 Credits (3)
An algebraic and graphical study of derivatives and integrals, with an emphasis on applications to business, social science, economics and the sciences.(2+2P)
Prerequisite(s): adequate scoring on the Mathematics Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in MATH 1220G or higher
View Course Outcomes

MATH 1435 Applications of Calculus I 3 Credits (3)
Intuitive differential calculus with applications to engineering.
Prerequisite(s): C- or better in MATH 1250G
Learning Outcomes
  1. Find limits algebraically and graphically and use limits to analyze continuity.
  2. Find the derivative of a function by applying appropriate techniques (limit of the difference quotient, general derivative rules, product rule, quotient rule, chain rule, and higher order derivatives).
  3. Learn derivative rules for polynomial, exponential, logarithmic, trigonometric and inverse trigonometric functions.
  4. Perform implicit differentiation. Use implicit differentiation to solve related rate application problems.
  5. Find the maxima, minima, points of inflections, and determine concavity of a function by applying the first and second derivatives. Use these results to sketch graphs of functions and to solve optimization problems in context.
  6. Find partial derivatives and find maxima, minima in three dimensions.
  7. Find the linear approximation of a function.
  8. Find Maclaurin and Taylor series.
  9. Find limits via L'Hospital's rule. 1
  10. Communicate mathematical information using proper notation and verbal explanations.

View Course Outcomes

MATH 1440 Applications of Calculus II 3 Credits (3)
Topics in this second course of Applications of Calculus include functions of several variables, techniques of integration, an introduction to basic differential equations, and other applications.
Prerequisite(s): C or better in MATH 1435 or in MATH 1521G, or in MATH 1521H
Learning Outcomes
  1. Find definite and indefinite integrals using integration by parts, integral tables, and numerical integration.
  2. Analyze multivariable functions using partial derivatives and double integrals, and apply these techniques to applications such as optimization, least squares, and volumes.
  3. Solve differential equations graphically, numerically, and algebraically using separation of variables, and apply differential equations in context.
  4. Apply differentiation and integration to other areas, for example to Taylor polynomials and Taylor series, probability, trigonometric functions, etc.

View Course Outcomes

MATH 1511G Calculus and Analytic Geometry I 4 Credits (4)
Limits and continuity, theory and computation of derivatives, applications of derivatives, extreme values, critical points, derivative tests, LHopitals Rule.
Prerequisite(s): adequate scoring on the Mathematics Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in MATH 1250G or higher
View Course Outcomes

MATH 1521G Calculus and Analytic Geometry II 4 Credits (4)
Riemann sums, the definite integral, antiderivatives, fundamental theorems, techniques of integration, applications of integrals, improper integrals, Taylor polynomials, sequences and series, power series and Taylor series.Repeatable: up to 4 credits.
Prerequisite(s): C- or better in MATH 1511G
View Course Outcomes

MATH 1521H Calculus and Analytic Geometry II Honors 4 Credits (4)
A more advanced treatment of the material of MATH 1521G with additional topics. (3+1P)
View Course Outcomes

MATH 1531 Introduction to Higher Mathematics 3 Credits (3)
Logic; sets, relations, and functions; introduction to mathematical proofs.
Prerequisite(s): C- or better in MATH 1521G or MATH 1521H
Learning Outcomes
  1. The primary objective of this course is to serve as a bridge between the calculus courses you have taken, where the focus is on computations and solving problems, to more abstract mathematics courses.
  2. In particular, we will discuss logical reasoning, definitions, proofs, and certain basic building blocks such as sets, functions, and relations.
  3. By the end of the course, you should be able to understand and construct well-- written proofs of basic mathematical arguments involving simple properties of the real numbers, integers, sets, functions, and relations using universal and existential quantifiers, absolute values and inequalities, modular arithmetic, and proof by induction.

View Course Outcomes

MATH 1996 Topics in Mathematics 1-3 Credits
Topics to be announced in the Schedule of Classes. Repeatable: Maximum of 3 credits per semester. Up to 6 credits.
View Course Outcomes

MATH 2134G Fundamentals of Elementary Math II 3 Credits (3)
Geometry and measurement. Multiple approaches to solving problems and understanding concepts in geometry. Analyzing and constructing two- and three-dimensional shapes. Measurable attributes, including angle, length, area, and volume. Understanding and applying units and unit conversions. Transformations, congruence, and symmetry. Scale factor and similarity. Coordinate geometry and connections with algebra. Reasoning and communicating about geometric concepts. Taught primarily through student activities and investigations. Repeatable: up to 3 credits.
Prerequisite(s): C- or better in MATH 1134
View Course Outcomes

MATH 2234 Fundamentals of Elementary Mathematics III 3 Credits (3)
Probability, statistics, ratios, and proportional relationships. Experimental and theoretical probability. Collecting, analyzing, and displaying data, including measurement data. Multiple approaches to solving problems involving proportional relationships, with connections to number and operation, geometry and measurement, and algebra. Understanding data in professional contexts of teaching. Taught primarily through student activities and investigations. Repeatable: up to 3 credits.
Prerequisite(s): C- or better in MATH 2134G
Learning Outcomes
  1. In order to teach a subject well you need not only to know the material that you will teach, but you need to know more than what you will teach, and know it well, in order to be able to answer questions, give alternate explanations when your students do not understand something, and be able to adjust to changes in the mathematical curriculum.
  2. Furthermore, even if you hope to teach a certain grade, you should be prepared to teach anything between kindergarten and 8th grade.
  3. You also need to be aware of where a student is coming from in order to make adjustments in their curriculum.
  4. A strong elementary school teacher must understand where his/her students are headed in order to most effectively direct them there.
  5. This is especially true in mathematics, where students continue to build on the concepts they learn each year.

View Course Outcomes

MATH 2350G Statistical Methods 3 Credits (3)
Exploratory data analysis. Introduction to probability, random variables and probability distributions. Concepts of Central Limit Theorem and Sampling Distributions such as sample mean and sample proportion. Estimation and hypothesis testing single population parameter for means and proportions and difference of two population parameters for means and proportions. Analysis categorical data for goodness of fit. Fitting simple linear regression model and inference for regression parameters. Analysis of variance for several population means. Techniques in data analysis using statistical packages.
Prerequisite(s): adequate scoring on the Mathematics Placement Exam, or any ACT/SAT and GPA combination that is considered equivalent, or a C- or better in MATH 1215 or higher
View Course Outcomes

MATH 2415 Introduction to Linear Algebra 3 Credits (3)
Systems of equations, matrices, vector spaces and linear transformations. Applications to computer science.
Prerequisite(s): Grade of C- or better in MATH 1521G or MATH 1521H
View Course Outcomes

MATH 2530G Calculus III 3 Credits (3)
Continuation of Calculus II including multivariate and vector calculus, level curves and surfaces, partial derivatives, gradient, directional derivatives, tangent planes, optimization, multiple integrals in Cartesian, cylindrical and spherical coordinate systems.
Prerequisite(s): Grade of C- or better in MATH 1521G
View Course Outcomes

MATH 2992 Directed Study 3 Credits (3)
Varies.Graded: S/U. Repeatable: for a maximum of 6 credits.
View Course Outcomes

MATH 2996 Topics in Mathematics 1-3 Credits
View Course Outcomes

Mechanical Engineering (M E)

M E 159 Graphical Communication and Design 2 Credits (2)
Sketching and orthographic projection. Covers detail and assembly working drawings, dimensioning, tolerance specification, and design projects. (1+3P)
Prerequisite(s)/Corequisite(s): MATH 1250G
View Course Outcomes

M E 210 Electronics and System Engineering 3 Credits (3)
Introduction to microcontrollers, measurement systems, motion actuators, sensors, electric circuits, and electronic devices and interfacing. Students required to work individually and in teams to design and test simple electromechanical systems. (2+3P)
Prerequisite(s): C- or better grade in MATH 1521G or ENGR 190
Repeatable: up to 3 credits
View Course Outcomes

M E 222 Introduction to Product Development 3 Credits (3)
Introduction to modern methods used in the realization of products. Traditional manufacturing processes, such as metal stamping, turning, milling, and casting are reviewed. Modern methods of rapid prototyping and model making are discussed in context of computer-aided design. Techniques for joining metals, plastics, and composites are discussed. Role of quality control is introduced. (2+3P)
Prerequisite(s): C- or better grades in M E 159 or E T 110
Repeatable: up to 3 credits
View Course Outcomes

M E 228 Engineering Analysis 3 Credits (3)
Introduction to engineering analysis with emphasis on engineering applications. Topics include ordinary differential equations, linear algebra, and vector calculus with focus on analytical methods.
Prerequisite(s): C- or better grades in MATH 2530G
Repeatable: up to 3 credits
View Course Outcomes

M E 234 Mechanics Dynamics 3 Credits (3)
Kinematics and dynamic behavior of solid bodies utilizing vector methods.
Prerequisite(s): C E 233
Prerequisite(s)/Corequisite(s): MATH 2530G
View Course Outcomes

M E 236 Engineering Mechanics I 3 Credits (3)
Force systems, resultants, equilibrium, distributed forces, area moments, friction, and kinematics of particles.
Prerequisite(s): MATH 1521G or MATH 1521H
Prerequisite(s)/Corequisite(s): PHYS 1310G
Repeatable: up to 3 credits
View Course Outcomes

M E 237 Engineering Mechanics II 3 Credits (3)
Kinetics of particles, kinematics and kinetics rigid bodies, systems of particles, energy and momentum principles, and kinetics of rigid bodies in three dimensions.
Prerequisite(s): M E 236
Prerequisite(s)/Corequisite(s): MATH 2530G
Repeatable: up to 3 credits
View Course Outcomes

M E 240 Thermodynamics 3 Credits (3)
First and second laws of thermodynamics, irreversibility and availability, applications to pure substances and ideal gases.
Prerequisite(s): C- or better grades in PHYS 1310G
Repeatable: up to 3 credits
View Course Outcomes

M E 261 Mechanical Engineering Problem Solving 3 Credits (3)
Introduction to programming syntax, logic, and structure. Numerical techniques for root finding, solution of linear and nonlinear systems of equations, integration, differentiation, and solution of ordinary differential equations will be covered. Multi function computer algorithms will be developed to solve engineering problems. (2+3P)
Prerequisite(s): C- or better grades in MATH 1521G or MATH 1521H or ENGR 190
Repeatable: up to 3 credits
View Course Outcomes

Music (MUSC)

MUSC 1110G Music Appreciation: Jazz 3 Credits (3)
This course explores the ideas of music in society and its cultural relevance and is designed to increase the students' appreciation of music as well as to enhance their listening skills. Students are introduced to various periods, styles, and composers of music and become acquainted with knowledge and appreciation of Jazz from various cultures and times.
View Course Outcomes

MUSC 1130G Music Appreciation: Western Music 3 Credits (3)
This course explores the ideas of music in society and its cultural relevance and is designed to increase the students' appreciation of music as well as to enhance their listening skills. Students are introduced to various periods, styles, and composers of music and become acquainted with knowledge and appreciation of Western music from various cultures and times.
View Course Outcomes

MUSC 1210 Fundamentals of Music for Non-majors 3 Credits (3)
A beginning course in the fundamentals of music, this course includes notation, scales, key signatures and intervals. Aural comprehension is introduced through singing intervals, scales and triads and dictating simple rhythmic and melodic patterns and students explore the basic components of music. Traditional Grading with RR.
Learning Outcomes
1. Demonstrate and apply standard notation of pitch, rhythm, scales, intervals, key signatures, triads, and simple melodic and harmonic composition
2. Develop and improve basic aural skills
3. Read musical notation
4. Improve and expand understanding of fundamental musical techniques and concepts

View Course Outcomes

MUSC 1220 Fundamentals of Piano for non-music majors 3 Credits (3)
This course will include instruction for non-music majors in beginning keyboarding skills. Students will develop their keyboard skills through practice and study of fundamentals.
Learning Outcomes
1. Develop technical skills in both hands to allow for ease in movement around the keyboard
2. Develop growth in reading rhythmic melodic and harmonic music
3. Demonstrate improved performance ability
4. Demonstrate knowledge of all major and minor scales, triads, chord progressions, and four-part harmony
5. Explain the importance of proper keyboarding practices

View Course Outcomes

MUSC 1310 Recital Attendance 0.5 Credits (0.5)
This course is for music students to attend and participate in a good number of convocation, concert, and recital performances, creating a wider appreciation for the performing arts. Music and Music Education majors. (1P) S/U Grading with RR. Repeatable: up to 4 credits.
Learning Outcomes
1. Encourage student observation of serious music
2. Provide opportunities for public performances
3. To create a greater sense of community within the student body

View Course Outcomes

MUSC 1410 Introduction to Music Education 2 Credits (2)
This course is an overview of teaching in the music classroom through readings and observations. Students will be introduced to the skills needed to become a reflective educator, develop observation techniques, and demonstrate knowledge of the current state of the profession.
Learning Outcomes
1. Make observations and analyze the current state of musical education in public schools
2. Describe characteristics of good teaching in music
3. Articulate a personal philosophy of music education
4. Reflect on personal strengths and weaknesses as a teacher of music

View Course Outcomes

MUSC 1440 Class Voice I 1 Credit (1)
Group instruction in voice and vocal pedagogy for instrumental Music Education majors, offering basic principles of healthy vocal production with particular attention to diction, development of vocal range, and the ability to impart that knowledge to elementary, junior and/or high school age students. Repeatable: up to 1 credit. Restricted to: M ED majors.Graded: RR
Learning Outcomes
1. Provide the basic understanding of healthy vocal production. Including, but is not limited to, the following topics: Expanding vocal range; Learning how to practice and learn songs effectively and efficiently; Provide basic understanding of vocal pedagogy; Introduction to diction
2. Aims to equip students with the ability to impart that knowledge to elementary, junior and/or high school age students.

View Course Outcomes

MUSC 1450 Ear Training I 1 Credit (1)
To develop the ability to accurately hear, identify, sing and notate musical elements including rhythm, melody, intervals and harmony Traditional Grading with RR.
Prerequisite(s): A C or better in MUSC 1210
Learning Outcomes
1. Counting rhythms at sight using the Eastman Counting System
2. Singing melodies at sight using solfege syllables
3. Writing out rhythmic patterns
4. Writing out melodic patterns
5. Identifying and singing intervals
6. Identifying and singing chord / triad qualities

View Course Outcomes

MUSC 1451 Ear Training II 1 Credit (1)
To develop the ability to accurately hear, identify, sing and notate musical elements including rhythm, melody, intervals and harmony.
Prerequisite(s): Grade of C- or better in MUSC 1450
Learning Outcomes
1. Counting rhythms at sight using the Eastman Counting System
2. Singing melodies at sight using solfege syllables
3. Writing out rhythmic patterns
4. Writing out melodic patterns
5. Identifying and singing intervals
6. Identifying and singing chord / triad qualities

View Course Outcomes

MUSC 1460 Music Theory I 3 Credits (3)
Introduction to vocabulary and syntax of 4-voice 18th c. chorale music through study and harmonic analysis.
Prerequisite(s): A C or better in MUSC 1210
Learning Outcomes
1. To learn the vocabulary and syntax of 4-voice 18th c. chorale music through study and harmonic analysis

View Course Outcomes

MUSC 1461 Music Theory II 3 Credits (3)
Expansion of vocabulary and syntax of 4-voice 18th c. chorale music through study, harmonic analysis, and part writing.
Prerequisite(s): Grade of C or better in MUSC 1460
Learning Outcomes
1. To expand and apply the vocabulary and syntax of 4-voice, 18th c. chorale music through study, harmonic analysis, and part writing.

View Course Outcomes

MUSC 1470 Functional Piano I 2 Credits (2)
Scales, chords, memorization. Harmonization of simple melodies with the ability to play simple melodies and rhythms. Restricted to music majors. No S/U option. Repeatable: for unlimited credit.
Learning Outcomes
1. 5 finger hand position in all keys
2. I-IV-I-V7-I cadences in all keys
3. One octave scales with hands together in C, G, D and F (major and minor)
4. Root position cross--over triads, solid and broken (major and minor)
5. Simple sight reading, harmonizing and transposition
6. Prepared pieces from the textbook
7. Simple improvisation
8. Play 2 simple vocal exercises
9. Identify intervals, key signatures and chords 1
10. Correct posture and hand position 1
11. Musical issues such as phrasing, slurs and dynamics 1
12. Good practice habits and techniques

View Course Outcomes

MUSC 1471 Functional Piano II 2 Credits (2)
Scales, chords, memorization. Harmonization of simple melodies with the ability to play simple melodies and rhythms. Restricted to music majors. No S/U option. Repeatable: for unlimited credit.
Prerequisite(s): MUSC 1470
Learning Outcomes
1. Two octave scales with hands separate in C, G, D, A, E, B and F (major and minor)
2. I-IV-I-V-V7-I cadences in above mentioned keys in root position and 1st inversion
3. Simple sight reading, harmonization and transposition
4. Prepared pieces from the book
5. Simple improvisation
6. Identify intervals, key signatures and chords
7. Correct posture and hand position
8. Musical issues such as phrasing, slurs and dynamics
9. Good practice habits and techniques

View Course Outcomes

MUSC 1472 Functional Piano III 2 Credits (2)
For music majors preparing for the Piano Proficiency Examination. May be taken for unlimited credit. Restricted to music majors. No S/U option.
Prerequisite(s): MUSC 1471.Repeatable: for unlimited credit
Learning Outcomes
1. Keys learned in previous semesters, adding F# and C# (D flat)
2. Secondary dominant chords added to cadence patterns
3. Two-octave,, root position arpeggios, major and minor
4. Intro to chord charts, harmonization
5. More difficult sight--reading and transpositions
6. More difficult prepared pieces
7. Accompany a piece for any instrument on the Mid--Term Recital (required

View Course Outcomes

MUSC 1992 Applied Music 1 Credit (1)
Private or group instruction for non-music majors, secondary instruments, and music majors preparing for 200-level applied music. May be taken for unlimited credit.
View Course Outcomes

MUSC 2110 Chamber Ensemble 1 Credit (1)
This course is an exploration of chamber ensembles, allowing students to develop their abilities with their instruments in a group setting. Students will gain a broader understanding of chamber ensemble through study of musical history, as well as various practice exercises and performances. Repeatable: up to 16 credits.
Prerequisite(s): by audition only
Learning Outcomes
1. Improve performance skills
2. Develop and improve performance skills in a group setting
3. Develop understanding and interpretation within the context of music history
4. Refine and improve technical ability
5. Demonstrate proper technique and usage

View Course Outcomes

MUSC 2120 Major Ensemble 1 Credit (1)
This course is an exploration of major ensembles, allowing students to develop their abilities with their instruments in a group setting. Students will gain a broader understanding of major ensemble through study of musical history, as well as various practice exercises and performances. Repeatable: up to 10 credits.
Prerequisite(s): by audition only
Learning Outcomes
1. Improve performance skills
2. Develop and improve performance skills in a group setting
3. Develop understanding and interpretation within the context of music history
4. Refine and improve technical ability
5. Demonstrate proper technique and usage

View Course Outcomes

MUSC 2130 Jazz Ensemble 1 Credit (1)
This course is an exploration of jazz ensembles, allowing students to develop their abilities with their instruments in a group setting. Students will gain a broader understanding of jazz ensemble through study of musical history, as well as various practice exercises and performances. Repeatable: up to 10 credits.
Prerequisite(s): By audition only
Learning Outcomes
  1. Improve performance skills
  2. Develop and improve performance skills in a group setting
  3. Develop understanding and interpretation within the context of music history
  4. Refine and improve technical ability
  5. Demonstrate proper technique and usage
  6. Develop and improve improvisation skills

View Course Outcomes

MUSC 2132 Percussion Ensemble 1 Credit (1)
Study and performance of contemporary percussion ensemble literature. Repeatable: up to 5 credits.
Prerequisite(s): by audition only
Learning Outcomes
  1. Improve performance skills
  2. Develop and improve performance skills in a group setting
  3. Develop understanding and interpretation within the context of music history
  4. Refine and improve technical ability
  5. Demonstrate proper technique and usage

View Course Outcomes

MUSC 2151 An Introduction to World Music, Jazz and Music Research 3 Credits (3)
Introduces world music and jazz within a historical and cultural context, considering significant musical figures, forms, genres, styles, and representative works. A major component will be the development of effective research and scholarly writing skills for the music major or minor. Music majors and minors. Repeatable: up to 3 credits.
Learning Outcomes
  1. This course will cover fundamental concepts and styles associated with world music (ethnomusicology), jazz and popular music, an overview of the Western European tradition, and an intense focus on research and writing about music.
  2. Emphasis will be placed on writing skills as they apply to the college experience in general and the world of music education and performance in particular.
  3. Students will become acquainted with the diverse ways cultures create and are affected by their respective musical arts.
  4. Focus will be on style evolution, forms, genres, composers, literature, and, where appropriate, performers.

View Course Outcomes

MUSC 2210 Diction I 2 Credits (2)
This course is designed to prepare students for singing in multiple languages using concepts of the International Phonetic Alphabet. Students will work to master the basics of phonetic singing to improve their overall musical abilities.
Learning Outcomes
  1. Correctly and consistently form vowel and consonant sounds when speaking and singing in multiple languages
  2. Correctly and consistently transcribe texts in multiple languages using the International Phonetic Alphabet
  3. Understand and explain the International Phonetic Alphabet's usage and symbols
  4. Develop and apply the concept of lyric diction to singing
  5. Gain fluency, accuracy, and confidence in pronunciation of sung text

View Course Outcomes

MUSC 2220 Diction II 2 Credits (2)
This course serves as a continuing study in the concepts of the International Phonetic Alphabet. Students will continue to improve and practice their diction to develop their singing and musical abilities in order to begin the mastery of lyric diction. Restricted to music majors.
Prerequisite(s): MUSC 2210
Learning Outcomes
  1. Correctly and consistently form vowel and consonant sounds when speaking and singing in multiple languages
  2. Correctly and consistently transcribe texts in multiple languages using the International Phonetic Alphabet
  3. Understand and explain the International Phonetic Alphabet's usage and symbols
  4. Develop and apply the concept of lyric diction to singing.
  5. Gain fluency, accuracy, and confidence in pronunciation of sung text.
  6. Demonstrate ability to notate song texts according to IPA standards

View Course Outcomes

MUSC 2240 Music History and Literature: Antiquity through Baroque 3 Credits (3)
Surveys Western art music within a historical and cultural context, considering significant musical figures, forms, genres, styles, and representative works from antiquity through the end of the Baroque era. An additional emphasis will be given to effective research and scholarly writing skills. MUSC majors.
Prerequisite(s): A grade of C- or better in MUSC 1450, 1460, and 2151
Learning Outcomes
  1. The purpose of the course is to survey the beginning history of music from the earliest ancient times through the Baroque period, ca. 175

View Course Outcomes

MUSC 2310 Sound and Music Technology 1 Credit (1)
This course serves as an overview of current technologies and principles for the recording and production of sound, and the use of computer-based technologies for the production of music. MUSC majors. Traditional Grading with RR.
Prerequisite(s): MUSC 1460
Learning Outcomes
1. Demonstrate fundamental knowledge of techniques and practices of music recording and production
2. Demonstrate ability to properly use computer based technologies to produce and record music
3. Demonstrate ability to create music recordings
4. Work with a variety of recording, production, and sound reinforcement tools
5. Apply basic and mixed editing techniques
6. Use audio editing and file management techniques
7. Demonstrate knowledge of music technology vocabulary
8. Explain and understand the development of various music technologies

View Course Outcomes

MUSC 2451 Ear Training III 1 Credit (1)
Continuation of MUSC 1451, advanced sight singing, dictation.
Prerequisite(s): Grade of C- or better in MUSC 1451
Learning Outcomes
1. Count rhythms at sight using the Eastman Counting System
2. Sing melodies at sight and prepared using Solfege syllables
3. Write out rhythmic patterns
4. Write out melodic patterns
5. Identify and singing intervals
6. Identify and sing chord / triad qualities
7. Write out harmonic dictation

View Course Outcomes

MUSC 2452 Ear Training IV 1 Credit (1)
Continuation of MUS 2451, advanced sight singing, dictation.
Prerequisite(s): Grade of C or better in MUSC 2451 and MUSC 2460
Learning Outcomes
1. Count rhythms at sight using the Eastman Counting System
2. Sing scales and sequences as assigned for the level
3. Sing melodies at sight using solfege syllables
4. Write out rhythmic patterns in both simple and compound meters
5. Write out melodic patterns in both major and minor tonalities
6. Identify, label and sing intervals
7. Identify, label and sing chords and extended harmonic qualities, i.e., V7 and inversions
8. Write out harmonic progressions in both two- and four-part forms including secondary dominants and modulations.
9. Accurately detect melodic and rhythmic errors in dictation examples

View Course Outcomes

MUSC 2460 Music Theory III 3 Credits (3)
Analysis of Baroque and Classical Music. Vocabulary and syntax of 18th and 19th c. Western art music through study, chordal/formal analysis, and composition.
Prerequisite(s): Grade of C or better in MUSC 1461
Learning Outcomes
1. To learn and apply the vocabulary and syntax of 18th and 19th c. Western art music through study, chordal/formal analysis, and composition.
2. Topics covered include: a. Two-Voice Eighteenth Century Counterpoint b. Fugue c. Borrowed Chords d. Neapolitan 6th Chords e. Augmented 6th Chords f. Sonata Form g. Rondo Form.

View Course Outcomes

MUSC 2461 Music Theory IV 3 Credits (3)
Analysis of Romantic, Post-Romantic, Impressionist, and Twelve-Tone Music. Vocabulary and syntax of late 19th and early 20th c. Western art music through study, micro/macro analysis, and composition.
Prerequisite(s): Grade of C or better in MUSC 2460
Learning Outcomes
1. To learn and apply the vocabulary and syntax of late 19th and early 20th c. music through study, micro/macro analysis, and composition.

View Course Outcomes

MUSC 2470 Functional Piano IV 2 Credits (2)
For music majors preparing for Piano Proficiency Examination. May be taken for unlimited credit. Restricted to music majors. No S/U option.
Prerequisite(s): MUSC 1472
Learning Outcomes
1. Keys learned in previous semesters, adding A flat, E flat, and B flat
2. Secondary dominant chords added to cadence patterns, all inversions
3. Arpeggios, all inversions
4. More difficult sight--reading and transpositions
5. More difficult prepared pieces
6. Four-part pieces (hymns)
7. Accompany a piece for any instrument on the Mid--Term Recital (required) Score reading and transposition

View Course Outcomes

MUSC 2510 Applied Music I 4 Credits (4)
Individual instruction to develop technique, musicianship, performance and improvisational skills, as well as knowledge of significant repertoire. Music and Music Education majors. Traditional Grading with RR.
Prerequisite(s): Audition
Repeatable: up to 16 credits
Learning Outcomes
1. These courses are not expected to transfer, and students will have to take a placement test upon transfer.

View Course Outcomes

MUSC 2992 Applied Music I 3 Credits (3)
Individual instruction to develop technique, musicianship, performance and improvisational skills, as well as knowledge of significant repertoire. Restricted to: Music and Music Education major. Grading: Traditional with RR.
Repeatable: up to 16 credits
View Course Outcomes

MUSC 2993 Workshop in Music 1 Credit (1)
Study, translation, analysis, rehearsal and performance of opera. Repeatable: up to 10 credits.
Prerequisite(s): by audition only
View Course Outcomes

MUSC 2996 Topics in Music 1-3 Credits
Emphasis on special areas of music; designed for highly motivated students. Repeatable: unlimited credit.
View Course Outcomes

Natural Gas Engine Compression (NGEC)

NGEC 133 Natural Gas Engine Repair Technology 5 Credits (5)
This course will cover the engine fundamentals, cylinder head and valve trains, engine block, engine servicing, lubrication and cooling Systems. Restricted to: Natural Gas Engine Compression majors.
View Course Outcomes

NGEC 175 Natural Gas Compressions Technology I 4 Credits (4)
This course delivers an introduction to the theory, application, rotary, and centrifugal natural gas compressor including operating principles, maintenance, and repair of the reciprocating, identification of the component parts and their functions, methods of balancing, and lubrication systems, and design characteristics. This course will also include calculations of gas flow, compressor sizing, rod loads, compressor analysis charts and horsepower ratings. In addition, this course will cover safety, precision measurement, use of the manuals, use of tools, and proper adjustments will be included with overhaul exercises. Restricted to: Natural Gas Engine Compression majors.
View Course Outcomes

NGEC 185 Natural Gas Compression Technology II 4 Credits (4)
This course delivers the principles of operation for natural gas engines and compressors. It includes process of startup and shutdown of natural gas compressor skid. Restricted to: Natural Gas Engine Compression majors.
Prerequisite(s): Grade of C or better in NGEC 175
View Course Outcomes

NGEC 245 Natural Gas Engine Management and Control Technology 5 Credits (5)
This course delivers operational and application studies of Engine Management System Fundamentals, Sensors, Engine Inspection, and Engine Management Fault Investigation. Restricted to: Natural Gas Engine Compression majors.
View Course Outcomes

NGEC 246 Fuel and Emissions Technology 5 Credits (5)
This course delivers operational and application studies of Engine Management System Fundamentals, Sensors, Engine Inspection, and Engine Management Fault Investigation. Restricted to: Natural Gas Engine Compression majors.
View Course Outcomes

NGEC 295 Special Topics 2 Credits (2)
Topics are to be announced in the Schedule of Classes. The topic and project are to be discussed and implemented between faculty member and student. Student gives presentation to class at the end of the term of study. All-Natural Gas Compression Technology classes in the NGEC Program must be completed or in progress before enrolling in this course. Natural Gas Engine Compression majors.
View Course Outcomes

Nursing (NURS)

NURS 120 Introduction to Pharmacology 3 Credits (3)
General principles of pharmacology including methods of administration, effect on the body, interactions with other drugs, and classification of drugs. Focus on the health care provider's role in safe pharmacologic intervention.
Repeatable: up to 3 credits
Crosslist: HIT 120
Learning Outcomes
1. Have advanced knowledge and understanding of medical terms.
2. Prepared for a career in the healthcare field.
3. State the derivation of most health care terms.
4. Use the rules given to build and spell healthcare terms and build singular terms to their plural form.
5. Recognize and recall an introductory word bank of prefixes, suffixes, and combining forms of their respective meanings.
6. Recognize and use terms related to the anatomy, physiology and procedures for the various body systems.

View Course Outcomes

NURS 130 Foundations of Pharmacology 3 Credits (3)
This course provides the nursing student with an introduction to the foundations of pharmacology including: science of drug action, principles of medication administration, accurate calculation of drug doses, medication therapy across the lifespan, application of medications to treat health alterations, normal and adverse responses by the client to medication therapy, medication safety, medication regulation, national patient safety goals, and appropriate nursing interventions to achieve the desired goals of medication therapy. Only students who have been admitted to the nursing program may enroll in this course. Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 147 & NURS 149
View Course Outcomes

NURS 134 Foundation of Nursing Skills and Assessment 3 Credits (3)
This course provides nursing students with introductory nursing knowledge related to performance of nursing skills and assessment including: techniques of fundamental nursing care, basic and intermediate nursing skills, and foundational physical assessment techniques associated with care across the lifespan. Open to students who have been accepted into the nursing program. (1+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 136 & NURS 137 or permission of the Program Director
View Course Outcomes

NURS 136 Foundations of Nursing Practice 6 Credits (6)

This course will introduce the nursing student to foundational theoretical concepts of professional nursing practice, the nursing process, and foundational nursing skills. It includes developmental concepts related to clients across the lifespan. Clinical experiences in the simulation lab, long-term care, the community, and rehabilitation settings will provide the student with the opportunity to apply learned skills to provide total care to meet needs of one adult client and to develop care planning skills related to actual problems. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.

Corequisite(s): NURS 134, NURS 137

View Course Outcomes

NURS 137 Care of Geriatric Patient 3 Credits (3)

This course will introduce the nursing student to foundational concepts of age-appropriate/specific care of the older adult who represents the largest population of individuals placing demands on the healthcare system. It includes basic and complex concepts and issues related to care of the older client across the care continuum, provision of cost-effective care in a resource sparse environment. Only students who have been admitted to the nursing program may enroll in this course. Students must be admitted into the nursing program to enroll in this course. NURS majors.

Corequisite(s): NURS 134 & NURS 136

View Course Outcomes

NURS 140 Pathophysiology for Allied Health Professionals 3 Credits (3)

Introduction to the nature of disease and its effect on body systems. Deals with the disease processes affecting the human body via an integrated approach to specific disease entities. 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, complication, treatment modalities, and prognosis. Restricted to Allied Health and Health Information Technology majors.

Learning Outcomes

1. Describe basic disease concepts, including mechanisms of disease, neoplasms, inflammation, and infection

2. Examine the basic anatomy and physiology of the body systems, etiology of various diseases and conditions, important signs and symptoms of disorders, common diagnostics, typical course and management of disorders, preventive measures, and the effects of aging

3. Identify the terminology, etiology, signs and symptoms, common diagnostics, typical course and management of disorders, and preventive measures associated with genetic and developmental disorders, childhood diseases, and mental health disorders

4. Recognize important medical terminology related to the understanding of human diseases

5. State the drug classifications and examples of medications in each class used to treat diseases, disorders and conditions related to each body system

NURS 146 Common Health Deviations 6 Credits (6)

Common health deviations and the manner by which they alter various body functions are explored. The role of the licensed practical nurse in assisting clients with common health deviations is presented. Ethical and legal implications and the role of the practical nurse are also considered. The licensed practical nursing student will utilize the application of knowledge to client care situation both in the subacute and acute care settings. The nursing process is presented as guide for coordinating client care. Grade of C or better. Restricted to: NURSING majors. (4+6P)

Prerequisite(s): NURS 153, NURS 156, NURS 154, NURS 157, and NURS 210 or consent of program director

Repeatable: up to 6 credits

View Course Outcomes

NURS 147 Adult Health I 6 Credits (6)

This course focuses on application of the nursing process and theoretical concepts of care for adults with commonly occurring health problems. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to continue development of: prioritization skills, proficiency in performance of nursing skills, collaborative skills with clients, families, peers and health care team members, care planning skills related to patient actual, psychosocial, and potential problems in the delivery of total nursing care to meet needs of one adult client. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.

Corequisite(s): NURS 130, NURS 147 lab, & NURS 149

View Course Outcomes

NURS 149 Mental Health Nursing 3 Credits (3)

This course will allow the nursing student to develop skills necessary to provide nursing care for clients with mental health problems in various health care settings including: common mental health disorders, psychosocial dysfunction, psychosocial safety/substance abuse issues, violence, suicide, restraints, developmental age related pathophysiology, psychopharmacology, cultural/religious considerations, grief/loss, promotion of mental health, and therapeutic communication. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to develop ability to develop: proficiency in performance of nursing skills, collaborative skills with clients, families, peers and health care team members, care planning skills related to patient actual, psychosocial, and potential problems in the delivery of total nursing care to meet needs of one client across the life span with acute/chronic mental health needs. Students must be concurrently enrolled in both the lecture and lab sections of this course. Only students who have been admitted to the nursing program may enroll in this course. (2+3P) Students must be admitted into the Nursing Program in order to enroll in the course. NUR majors.

Corequisite(s): NURS 130, NURS 147, & NURS 149L

View Course Outcomes

View Course Outcomes

NURS 150 Medical Terminology 3 Credits (3)
Understanding of the basic elements of medical words. Use of medical abbreviations. Crosslisted with: BOT 150, AHS 120 and HIT 150.
Repeatable: up to 3 credits
Crosslist: OEHO 120 and BOT 150
Learning Outcomes
1. Demonstrate proficient interpretation of medical abbreviations
2. Explain the importance of utilizing medical terms/abbreviations in the medical field
3. Define medical terms correctly
4. Interpret medical language including roots, prefixes and suffixes
5. Pronounce medical terms correctly
6. Spell medical terms correctly

View Course Outcomes

NURS 153 Medication and Dosage Calculation 1 Credit (1)
Techniques of dosage calculation for medication and fluid administration. RR applicable. Students must meet SENMC basic skills requirement in mathematics to enroll in this course.
Corequisite(s): NURS 156 and NURS 154
Learning Outcomes
1. Utilize the nursing process, clinical judgment, evidenced based information and knowledge from the arts and sciences to provide safe client centered care.
2. Coordinate and collaborate effectively through verbal, nonverbal, and technological means with individuals, families and the interdisciplinary team.
3. Integrate accountability and responsibility for practice within the legal and ethical standards of the nursing profession.
4. Apply the principles of delegation, management and leadership in providing client centered care.
5. Participate in activities that promote professional development and personal growth.

View Course Outcomes

NURS 154 Physical Assessment 2 Credits (2)
Beginning techniques of physical assessment by systems will be presented using the nursing process as a guide for providing safe client centered care throughout the life span. Grade of C or better is required. Restricted to: NURSING majors.
Prerequisite(s): BIOL 1130 or BIOL 2210
Corequisite(s): NURS 153, NURS 156
Repeatable: up to 2 credits
Learning Outcomes
1. Discuss the purpose, guidelines, safety factors, and equipment necessary for performing a physical exam. (1, 4)
2. Discuss and demonstrate techniques necessary to facilitate communication to obtain a health history. (1, 2)
3. Identify and demonstrate correct documentation of each body system. (1)
4. Define ethical/legal implications as they relate to documentation and the physical assessment exam. (1, 3)
5. Identify and discuss the nutritional implications as they relate to the physical assessment exam. (1, 2)
6. Recognize key terms, exam techniques, and the anatomy and physiology on the assessment of each body system. (1)
7. Discuss developmental and cultural differences in performing a physical assessment. (1, 2)
8. Identify and discuss components of the nursing process focusing on assessment and beginning to recognize self-care deficits. (1)
9. Identify opportunities to promote self-care assessment within the physical exam. (1) 1
10. Identify methods by which airing behaviors facilitate the nurse-patient relationship in the performance of a physical assessment. (1, 5)

View Course Outcomes

NURS 155 Special Topics 2 Credits (2)
Specific subjects to be announced in the Schedule of Classes.
Learning Outcomes
1. Demonstrate the ability to organize their time to improve study habits.
2. Identify effective study strategies
3. Incorporate interventions into the plan of care while remaining aware of the cultural, spiritual and ethical needs of the client
4. Demonstrates skill in using client care technologies that support safe client care.
5. Demonstrate effective writing skills by using information systems.
6. Demonstrate clinical judgement and problem solving skills by utilizing the nursing process as a guide in providing nursing care and rationale to clients with simple health deviations

View Course Outcomes

NURS 156 Basic Nursing Theory and Practice 6 Credits (6)
Introduction to the nursing profession and the beginning skills of nursing practice as it relates to normalcy. The nursing process is presented as a means of guiding the student in providing safe client centered care. Ethical and legal aspects of nursing practice are also included. Basic clinical nursing skills will be presented and practiced in the nursing lab. The student will perform these skills with clients in an actual health care setting. Consent of Program Director requires. Restricted to: NURSING majors. (4+6P)
Corequisite(s): NURS 153, NURS 154
Repeatable: up to 6 credits
Learning Outcomes
1. Utilize the nursing process, clinical judgment, evidenced based information and knowledge from the arts and sciences to provide safe client centered care.
2. Coordinate and collaborate effectively through verbal, nonverbal, and technological means with individuals, families and the interdisciplinary team.
3. Integrate accountability and responsibility for practice within the legal and ethical standards of the nursing profession.
4. Apply the principles of delegation, management and leadership in providing client centered care.
5. Participate in activities that promote professional development and personal growth.

View Course Outcomes

NURS 157 Maternal/Child Health Deviations 8 Credits (8)
This course introduces the student to the concepts and principles of nursing care of the family from conception to adolescence. Utilizing the assessment, analyzing, planning, and implementation phases of the nursing process (the Care map), the student focuses on the supportive-educative nursing system to assist members of the family in meeting self-care requisites and how they are affected by the health deviations common to each developmental level beginning with conception and ending with adolescence. Knowledge gained in theoretical instruction is then applied to the patient care situation. After an introduction to the necessary clinical skills in the campus laboratory setting, students will participate in clinical experiences with the focus on the family from conception to adolescence. The assessment, analysis, planning, and implementation phases of the nursing process are emphasized as a tool to assist patients in meeting universal and developmental self-care requisites. Utilizing the nursing process, the student provides safe, client-centered care to diverse clients and families. Theoretical instruction is applied to client care situations. Students collaborate with clients, families, and the interdisciplinary team in meeting health care needs. Experiences may occur in the physician's office, local health department, day care centers, schools, or the hospital. Grade of C or better required. Restricted to: NURSING majors. (6+6P)
Prerequisite(s): NURS 156, NURS 153, and NURS 154
Corequisite(s): NURS 210
Learning Outcomes
1. Determine how values of clients, families and medical personnel impact the involvement of clients in their health care related to maternal/child and pediatric clients.
2. Implement individualized client care utilizing an evidenced based approach related to maternal/child and pediatric clients.
3. Choose health protection, health promotion, and disease prevention strategies in the care of maternal/child and pediatric clients.
4. Apply the scope, risk factors, physiologic processes, and clinical management strategies to maternal/child and pediatric clients.
5. Choose resources for continuity of client care related to maternal/child and pediatric clients.
6. Give examples of significant information to report to other disciplines.
7. Apply the principles of delegation in the provision of client care with maternal/child and pediatric clients.
8. Utilize evidenced based information to implement a plan of care and employ nursing interventions for maternal/child and pediatric clients.
9. Use the principles of ethical practice in the delivery of nursing care for maternal/child and pediatric clients. 1
10. Apply policies, procedures and standards of care related to maternal/child and pediatric in the provision of client care. 1
11. Apply nursing interventions to reduce risk of harm to self and others related to maternal/child and pediatric clients. 1
12. Choose available technology for delivery of nursing care related to maternal/child and pediatric clients.

View Course Outcomes

NURS 201 Special Topics 1 Credit (1)
Specific topics to be announced in the Schedule of Classes.
Prerequisite(s): admission to the nursing program
Repeatable: for a maximum of 10 credits
View Course Outcomes

NURS 209 Independent Study 1 Credit (1)
Individual studies to meet identified student needs.
Prerequisite(s): admission to the nursing program
Repeatable: for a maximum of 10 credits
View Course Outcomes

NURS 210 Pharmacological Requisites of the Childbearing Family 1 Credit (1)
Basic concepts of pharmacology including pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, and their relationship to nursing care will be discussed focusing on medications commonly utilized with the childbearing family. Medication classes to be discussed include labor and delivery, analgesic, vitamins, respiratory, gynecological, endocrine, and anti-microbial/anti-infective drugs. Grade of C or better required.
Prerequisite(s): NURS 153, NURS 154 and NURS 156
Corequisite(s): NURS 157
View Course Outcomes

NURS 211 Pharmacological Requisites of Simple Health Deviations 1 Credit (1)
Basic concepts of pharmacology including pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, and their relationship to nursing care are addressed focusing on medications related to the psychiatric, gastrointestinal, musculoskeletal, gynecological, hematological, and anti-neoplastic client. Grade of C or better required.
Prerequisite(s): BIOL 2210 and BIOL 2225 and NURS 153, NURS 154, NURS 156, NURS 157 and NURS 210
Corequisite(s): NURS 246 and NURS 258
Learning Outcomes
1. Identify and discuss each of the major classifications of drugs and drugs within the class, including the pharmacokinetics and pharmacodynamics involved for the following body systems: (PSLO: 1, 4) a. Central Nervous System b. Immune/Hematological c. Gastrointestinal d. Musculoskeletal

2. Discuss the relationship between the use of pharmaceuticals and the treatment of disease in clients with health deviations. (PSLO: 1, 2, 4)

3. Discuss the importance of client education as it relates to each classification of drug presented, especially in preventing drug-drug and food drug interactions. (PSLO: 1, 2)

4. Describe the role of the nurse in safe medication administration to clients with simple health deviations. (PSLO: 2, 3)

View Course Outcomes

NURS 212 Pharmacological Requisites of Complex Health Deviations 1 Credit (1)
Basic concepts of pharmacology including pharmacokinetics, pharmacodynamics, and pharmacotherapeutics, and their relationship to nursing care is examined focusing on medications related to complex health deviations. Drug classes to be discussed include cardiovascular, renal, endocrine, and neurological. Grade of C or better required.
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 246, NURS 258, NURS 210 and NURS 211
Corequisite(s): NURS 256 and NURS 260
View Course Outcomes

NURS 224 Maternal Child Nursing 5 Credits (5)
This course provides the intermediate nursing student with an in-depth review of care of the childbearing woman, family structures and roles, and nursing care of the child from birth through adolescence. Emphasis includes the care of pre-partum, intra-partum and postpartum clients, the neonate and health deviations in pediatric clients. Clinical experiences in the simulation lab, the community, and acute care settings will provide the student with the opportunity to apply learned skills to provide total care to meet needs of up to two adult, neonatal, or pediatric clients and to apply care planning skills related to actual, psychosocial and potential problems. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+3P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 235, & NURS 236
View Course Outcomes

NURS 226 Adult Health II 6 Credits (6)
This course focuses on application of nursing process and theoretical concepts of care for adults with complex health alterations. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to apply: prioritization skills, maintain proficiency in performance of nursing skills, collaborative skills with clients, families, peers and health care team members, and care planning skills related to patient actual, psychosocial, and potential problems in the delivery of nursing care to meet needs of three adult clients. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program may enroll in this course. (4+6P) Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 224 & NURS 235
View Course Outcomes

NURS 235 Nursing Leadership and Management 1 Credit (1)
This course introduces the intermediate nursing student to professional practice principles of nursing leadership and management including: health policy and politics, fiscal management & budgeting, conflict management, decision making, interdisciplinary practice, working with teams, roles in disaster planning and management, application of standards of care to risk management, organization of care delivery, health care systems, processes, and practice environments. Students must be admitted into the Nursing Program to enroll in this course. NUR majors.
Corequisite(s): NURS 224,NURS 226
Repeatable: up to 1 credits
View Course Outcomes

NURS 236 Nursing Preceptorship - Adult Health III 6 Credits (6)

This course is the final course involving care of the patient with acute or chronic illness. It focuses on care of patients with complex or multi-system problems allowing the graduating nursing student to discuss and apply all the skills learned in previous nursing courses. After successfully passing the HESI exam, students have clinical practice with preceptor in various health care settings. Selected clinical learning experiences in the simulation lab, acute care, and community settings will allow the student to: organize care of a group of clients, maintain proficiency in performance of nursing skills, collaborate with clients, families, peers and health care team members, and support care planning skills related to patient actual, psychosocial, and potential problems in the delivery of nursing care to meet needs of the preceptors group of clients. Students must be concurrently enrolled in both the lecture and lab sections of the course. Only students who have been admitted to the nursing program and have successfully completed all level 1, 2 and 3 nursing courses may enroll in this course. Clinical may include inpatient or outpatient care, days, evenings, nights, or weekend experiences. Students are required to work the preceptors assigned schedule. NCLEX Review must be done concurrently. Students must be admitted into the Nursing Program to enroll in this course. NUR majors. (2+12P)

Corequisite(s): NURS 201

View Course Outcomes

NURS 246 Health Deviations I 7 Credits (7)

Introduction to medical/surgical clients, whose health care needs are routine and predictable. Focus is on simple health deviations, including concepts relative to health promotion and maintenance. The nursing process is utilized to provide evidenced based, safe client centered care. Students are expected to apply clinical judgment, communicate and collaborate with clients and the interdisciplinary team in providing care for a group of two to three clients. Grade of C or better required. Restricted to: Nursing majors. (4+9p)

Prerequisite(s): NURS 153, NURS 156, NURS 154, NURS 157 and NURS 210

Corequisite(s): NURS 211, NURS 258

Repeatable: up to 7 credits

Learning Outcomes

1. Incorporate interventions into the plan of care while remaining aware of the cultural, spiritual and ethical needs of the client (1)
2. Utilize the beginning skills of interpersonal relations in establishing a therapeutic relationship with diverse clients and families. (2)
3. Demonstrates skill in using client care technologies that support safe client care. (2)
4. Demonstrate effective writing skills by using information systems and writing the entire nursing process at a level of 76% or better. (1)
5. Demonstrate clinical judgement and problem solving skills by utilizing the nursing process as a guide in providing nursing care and rationale to clients with simple health deviations (1)
6. Assist members of the interdisciplinary team in the planning of safe client care and evidence based practice outcomes for clients with simple health deviations. (1)
7. Operate within the ethical and legal responsibilities of nursing and society as they relate to the client with simple health deviations. (3)
8. Utilize knowledge from current research studies and evidence based practice applicable to the care of clients when assessing, analyzing, planning, implementing, and evaluating nursing care. (1).
9. Demonstrate behavior that reflects the values and ethics of the nursing profession. (3) a. Integrate the client's value system, culture, or religious beliefs while maintaining a non-judgmental attitude. b. Select to be respectful and courteous. c. Share compassion and empathy. d. Integrate therapeutic interpersonal skills. e. Integrate genuine concern for the client and his/her welfare. f. Select discharge planning as one method of preparing the client for self-care. g. Integrate the concepts of confidentiality and privacy at all times. h. Share a commitment and ownership to nursing. i. Promote safety and quality improvement as an advocate of nursing care. 1
10. Demonstrate knowledge of delegation, management, and leadership skills. (4)

View Course Outcomes

NURS 256 Health Deviations II 8 Credits (8)
Concepts and principles applied to clients with complex health deviations. Building upon knowledge gained in NURS 246, focus will be on acutely ill clients. The nursing process continues to serve as a guide to provide safe, client centered care. The student collaborates with the interdisciplinary team in all aspects of client care. Student experiences the role of the staff nurse under the guidance and direction of the nursing instructor. Grade of C or better required. Restricted to: Nursing majors. (6+12P)
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 210, NURS 211, NURS 246, and NURS 258.Corequisite(s): NURS 212, NURS 260
Repeatable: up to 8 credits
View Course Outcomes

NURS 258 Psychosocial Requisites: A Deficit Approach 3 Credits (3)
Nursing theory and practice as it relates to the care of the client experiencing psychosocial health deviations. The role of the nurse is discussed along with the ethical and legal aspects of care for the client with psychosocial disorders. Building upon the communication skills of listening and responding, the student develops the therapeutic skills of interpersonal relationships. Grade of C or better is required. Restricted to: Nursing majors. (2+3P)
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 210, and NURS 246
Corequisite(s): NURS 211, NURS 246
Repeatable: up to 3 credits
Learning Outcomes
1. Describe the effects of psychosocial deviations on the client's ability to maintain self-care (1,2)
2. Describe therapeutic communication and explain how to employ therapeutic interpersonal skills in the nurse-client relationship (1,2)
3. Analyze the influence of cultural elements on his/her attitudes and behaviors toward mental health and mental illness (1, 3)
4. Utilize the nursing process to assist client's experiencing psychosocial health deviations (1,4)
5. Identify nursing interventions to meet the safety needs of the client with a psychosocial health deviation (1,4)
6. Analyze the legal and ethical issues regarding the client with a psychosocial health deviation (3,5)

View Course Outcomes

NURS 260 Management of Patients with Health Deviations 2 Credits (2)
A capstone course to the nursing program in which principles in management and delegation to less prepared personnel is explored. A review of leadership roles, legal issues, quality initiatives, informatics and scope of practice is included. Preparation for the NCLEX is an integral portion of the course. Grade of C or better is required. Restricted to: Nursing majors.
Prerequisite(s): NURS 153, NURS 154, NURS 156, NURS 157, NURS 210, NURS 211, NURS 246, and NURS 258
Corequisite(s): NURS 212, NURS 256
Repeatable: up to 2 credits
Learning Outcomes
1. Discuss nursing practice concepts relevant to the practice of professional nursing.
2. Evaluate principles of quality improvement and safety into nursing practice within healthcare organizations and systems.
3. Apply leadership concepts through the application of policies that apply to healthcare delivery.
4. Promote a culture of safety through anticipating and eliminating potentially harmful situations.
5. Collaborate in systems analysis when clinical errors or near misses occur to reduce harm, minimize blame, and encourage transparency.
6. Integrate evidence in determining best clinical practice.
7. Demonstrate basic knowledge of healthcare policy, finance, and regulatory environments, including local, state, national, and global healthcare trends.
8. Use an ethical framework to evaluate the impact of policies of healthcare, especially for venerable populations.

View Course Outcomes

NURS 1110 Pre-Nursing Freshman Seminar 1 Credit (1)
This Freshman seminar provides an introduction to the university and its resources, an orientation to the pre-nursing curriculum, and overview of concepts for professional nursing practice. Emphasis is placed on exploring the nurse's role as an integral member of the healthcare team across multiple contexts and settings, and developing a professional identity. Consent of Instructor required.
View Course Outcomes

Nursing Assistant (NA)

NA 101 Nursing Assistant Theory and Lab 6 Credits (6)
Nurse aide skills with emphasis on a bio-psychosocial-cultural approach to client care. Practice of these skills is provided in the laboratory as well as at a clinical site. Successful completion of the course prepares and qualifies the student to take the NACES certification examination. Requires a C or better to pass. (5+2P)
View Course Outcomes

NA 102 Sterile Processing Technician 4 Credits (4)
This course will prepare the student to work as a Sterile Processing Technician, performing critical functions that support both the hospital and Operating Room. The student will learn about infection control, instrument reprocessing, decontamination, disinfection, and sterilization. All critical aspects of sterile processing will be covered to include applicable standards and regulations. This field is constantly evolving and those desiring to work in this profession must ensure that they stay abreast of the science behind the discipline. (3+3P)
Prerequisite(s): CCDE 110 N General Composition Placement exam scores, or specific course work
View Course Outcomes

NA 104 Nursing Assistant Fundamentals 3 Credits (3)
This course prepares students for employment as a Nursing Assistant in a Long Term Care Facility. Theory and basic nursing care skills will be taught with an emphasis being placed on the psychosocial-cultural approach to client care. Students will learn communication skills, basic anatomy and physiology, growth and development, infection control, body mechanics, basic nutrition, client/resident elimination needs, the client/resident unit, vital signs, range of motion exercises, bed making, rehabilitation and restorative care, client admission and discharge, common health problems, dealing with death and dying, and basic medical terminology. NA 104 and NA 104L (laboratory) must be successfully completed with a C- or better in order to continue to NA 105 Nursing Assistant Clinical. NA 105 must also be successfully completed with a C- or better to be eligible to take the state certification competency examination. Attendance is required to meet the federal requirements for training hours and content prior to direct contact with a patient/resident and the state competency examination. Students must test out of all CCDE and CCDR courses and eligible to take ENGL 1110G to enroll in this course.
Corequisite(s): NA 104 L
View Course Outcomes

NA 104 L Nursing Assistant Fundamentals Lab 1 Credit (1)
This course prepares students for employment as a Nursing Assistant in a Long Term Care Facility. Students will learn and demonstrate personal care skills including bathing, grooming, dressing, toileting, assisting with eating and hydration, skin care, transfers and positioning. Students will also learn and demonstrate the use of assistive devices, and how to maintain resident safety, dignity and privacy. NA 104 & NA 104L must be successfully completed with a C- or greater in order to continue to NA 105 Clinical. NA 105 must be successfully completed with a C- or greater to be eligible to take the state certification competency examination. (3P)
Prerequisite(s): English Accuplacer score of 200 or greater or CCDE 110N, and reading Accuplacer score of 200 or greater or CCDR 105N
Prerequisite(s)/Corequisite(s): NA 104
View Course Outcomes

NA 105 Nursing Assistant Clinicals 4 Credits (4)
Extension of basic fundamentals of personal care, including theory, skills and clinical experience leading to the certified Nursing Assistant Examination at the conclusion of the semester. Continuation of NA 104. Requires a C or better to pass. (3+3P)
Prerequisite(s): C or better in NA 104
View Course Outcomes

NA 109 Phlebotomist Basic 4 Credits (4)
This course provides the latest information, techniques, skills, and equipment for blood and specimen collection based on the standards of the Clinical and Laboratory Standards Institute, Needlestick Prevention Act, Joint Commission 2008 National Patient Safety Goals, OSHA and CDC. An advanced skills lab is included in the course to provide a hands-on practice experience and a 30 hour practicum in a supervised work environment collecting blood and specimens on actual patients for laboratory tests. Attendance is mandatory. Prepares students for employment as a phlebotomist in health care settings. Requires a C or better to pass. Upon successful completion of the course, student has the opportunity to test for National Healthcareer Certification. (2+4P)
Prerequisite(s)/Corequisite(s): BIOL 1130 or BIOL 2225
View Course Outcomes

NA 110 Electrocardiogram Technician Basic 4 Credits (4)
Prepares students for employment as an Electrocardiogram Technician. Includes basic theory of the cardiovascular system, cardiac rhythm interpretation, 12 lead ECG lead placement, and ECG equipment trouble shooting. The course includes an advanced skills laboratory for hands-on practice and 16 hours of supervised clinical in the work environment assisting with ECG testing. Attendance is mandatory. Course requires a grade of C or better to pass. Upon successful completion of course, student has the opportunity to test for National Healthcareer Certification. (3+2P)
View Course Outcomes

NA 111 Alzheimer/Dementia Care Focus 3 Credits (3)
Students will learn respectful care of Alzheimer/Dementia persons while ensuring their dignity, maximizing safe independence focusing on strengths and abilities.
Prerequisite(s)/Corequisite(s): NA 104 or NA 101
View Course Outcomes

NA 113 Sterile Processing Practicum 5 Credits (5)
This course will allow students to get hands on training in the Sterile Processing Department. They will perform critical functions learned in the Sterile Processing Technician course. They will apply principles of medical asepsis and infection control and by the end of the practicum be able to independently function in all work areas of the Sterile Processing Department. This field is constantly evolving and those desiring to work in this procession must ensure that they stay abreast of the science behind the discipline. (1+4P)
Prerequisite(s): CCDE 110 N
Prerequisite(s)/Corequisite(s): NA 102
View Course Outcomes

NA 115 Phlebotomist Technician 6 Credits (6)
Basic theory and skills of phlebotomy following OSHA and Center for Disease Control guidelines. Prepares students for the requirements of testing for the ASCP certi?cation exam and employment in a healthcare organization as a phlebotomist in licensed settings. Laboratory hours include infection control skills & practice, patient assessment & teaching, and practice in venipuncture. Clinical time includes clinical laboratory processes and operations, patient assessment, venipuncture, and exposure to clinical policies and procedures. Upon successful completion students are workforce ready. Requires C or better to pass. (3+6p)
Learning Outcomes
1. Collection and process blood and biological specimens for analysis in a safe manner, while adhering to healthcare regulations and facility protocol.
2. Identify variables that affect procedures and results; take appropriate corrective action when needed.
3. Monitor quality control of specimens and work environment.
4. Perform preventive and corrective maintenance on equipment and instruments; refer to the appropriate vendor for repairs.
5. Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, supervisors, and other healthcare professionals.
6. Uphold exemplary patient care standards.
7. Meet requirements to sit for the Phlebotomist Certification Exam, including 100 clinical hours (10 lab hours + 90 rotation hours) and 100 successful unassisted venipuncture.

View Course Outcomes

NA 204 Patient Care Technician 4 Credits (4)
This course will prepare Certified Nursing Assistants (CNAs) to work in the acute care setting through an expansion of their existing basic skill set. Students will acquire expanded acute care skills, critical thinking skills, and knowledge in caring for patients of all ages. (3+3P) Currently CNA certified.
Prerequisite(s): (NA 104, NA 105, NA 109, NA 110, AHS 120, and (BIOL 1130 or (BIOL 2210 & BIOL 2225))
Corequisite(s): NA 205
View Course Outcomes

NA 205 Patient Care Technicians Practicum 4 Credits (4)
This course will prepare Certified Nursing Assistants (CNAs) to work in the acute care setting through an expansion of their existing basic skill set. Students will acquire expanded acute care skills, critical thinking skills, and knowledge in caring for patients of all ages. Students will go to acute care settings to practice newly acquired skills. Must have a C or better to pass. (1+9P)
Prerequisite(s): (NA 104, NA 105, NA 109, NA 110, AHS 120, & (BIOL 1130 or (BIOL 2210 & BIOL 2225))) Currently CNA Certified
Corequisite(s): NA 204
View Course Outcomes

NA 209 Phlebotomy Laboratory Technician 4 Credits (4)
A continuation of NA 109, Phlebotomy Basic. This course furthers the experience, knowledge and skills of the phlebotomist by providing advanced specimen collection techniques, skills to assist with lab management, patient data processing, quality control measures, and customer service. Completion of thirty clinical hours and fifty successful venipunctures are required. Attendance in mandatory. Requires a final grade of C or better to pass. Consent of Instructor required. (2+4P)
Prerequisite(s): (BIOL 1130 or BIOL 2310 & BIOL 2225), and AHS 120, and NA 109
Prerequisite(s)/Corequisite(s): ENGL 1110G or ENGL 1110H or
View Course Outcomes

NA 210 Administrative Procedures for Medical Assistants 4 Credits (4)
This course will provides students with the administrative procedures needed for a medical assistant. Skills will include creating welcoming environment, cultural considerations, office safety, opening and closing procedures, computer operation and management, written and telephonic communications, financial procedures, patient scheduling, medical record management, and medical insurance, billing, and coding.
Prerequisite(s): MATH 1215, and ENGL 1110G, and AHS 120, and BIOL 1130 or BIOL 2225
Prerequisite(s)/Corequisite(s): NA 212
View Course Outcomes

NA 212 Medical Assistant Capstone Course 6 Credits (6)
This course provides the student with entry-level theory and limited hands-on training in basic and routine clinical office tasks. The course will equip the Medical Assistant (MA) student with the competencies required to perform in a medical office under the direct supervision of a physician. The graduate will be able to assist the physician with physical exams, ECGs, phlebotomy, and minor surgical procedures. CNA Certification within the last 5 years.
Prerequisite(s): NA 105, NA 110, NA 109, AHS 120, BIOL 1130, BOT 208, HIT 228, HIT 248
View Course Outcomes

NA 214 Medical Assistant Practicum 6 Credits (6)
This course is the practicum for NA 212 Medical Assistant Fundamentals Capstone Course. Students will prepare for a career as a medical assistant in medical offices and clinics. During practicum students will observe and participate in 180 hours in a supervised work environment using knowledge and skills learned in NA 212. This course includes weekly post-practicum conferences with the instructor. The student will be evaluated by both the employer and the instructor. Requires a C or better to pass. Upon successful completion the student may be eligible to test for National Certification. Students who have been CNA Certified within the last 5 years can use this to enroll into this course. Consent of Instructor required. (1+6P)
Prerequisite(s): NA 105, NA 110, NA 109, AHS 120, BIOL 1130, BOT 208, HIT 228, HIT 248
Prerequisite(s)/Corequisite(s): NA 212
View Course Outcomes

Nutrition (NUTR)

NUTR 2110 Human Nutrition 3 Credits (3)
This course provides an overview of nutrients, including requirements, digestion, absorption, transport, function in the body and food sources. Dietary guidelines intended to promote long-term health are stressed.
Learning Outcomes
1. Evaluate sources of nutrition information for reliability
2. Identify elements of a nutritious diet
3. Describe the digestion, transport, and absorption of nutrients
4. Describe the importance of nutrition in weight control and health
5. Identify nutritional needs as they relate to the life cycle and performance
6. Describe behavior modification techniques that promote good health
7. Evaluate popular nutrition trends for scientific accuracy and effectiveness
8. Develop skills in the planning and assessing of healthy meal plans
9. Describe the role of food choices in the development of chronic disease 1
10. Describe the role of food in the promotion of a healthful lifestyle

View Course Outcomes

NUTR 2120 Seminar I- The Fields of Dietetics 1 Credit (1)
This course will introduce students to the field experience, careers, and professions in nutrition. This course is required for students pursing a Didactic Program in Dietetics verification statement. Repeatable: up to 1 credit. Restricted to: HNDS majors.
Learning Outcomes
1. Describe career options within the fields of Nutrition Dietetics.
2. Outline the HNDS field experience process.
3. Explain the educational pathways in HNDS.
4. List requirements for admission into the HNDS Dietetics pathway.
5. Begin an HNDS student portfolio.
6. Discuss the importance of personal responsibility accountability

View Course Outcomes

Office Admisistration Technology Systems (OATS)

OATS 101 Keyboarding Basics 3 Credits (3)
Covers the skills necessary to touch type on the computer keyboard using correct techniques. This includes the development of speed, accuracy, and formatting of basic business documents.
Repeatable: up to 3 credits
Learning Outcomes
1. Master the touch typing technique; type accurately at 70 wpm.
2. Correctly format documents according to industry standards.
3. Produce documents with 3 or fewer typographical errors per page of copy.

View Course Outcomes

OATS 102 Keyboarding: Document Formatting 3 Credits (3)
Designed to improve keyboarding speed and accuracy; introduce formats of letters, tables and reports. A speed and accuracy competency requirement must be met. (2+2P)
Prerequisite(s): OATS 101 or consent of instructor
Learning Outcomes
1. Introduction to Microsoft Word
2. Learn the proper procedures to create publications suitable for coursework, professional purposes, and personal use

View Course Outcomes

OATS 105 Business English I 3 Credits (3)
Training and application of the fundamentals of basic grammar, capitalization, punctuation, basic writing, sentence structure, and editing skills.
Repeatable: up to 3 credits
View Course Outcomes

OATS 106 Business Mathematics 3 Credits (3)
Mathematical applications for business. (2+2P)
Prerequisite(s): CCDM 103 N or adequate score on math placement exam
Repeatable: up to 3 credits
View Course Outcomes

OATS 110 Records Management 3 Credits (3)
Principles, methods and procedures for the selection, operation and control of manual and automated records systems.
Learning Outcomes
1. Recognize Records Control and Management systems.
2. Utilize vocabulary pertaining to records management.
3. Recognize the importance of using organized, efficient records management systems.
4. Recognize various kinds of filing equipment and supplies (paper and electronic).
5. Apply ARMA (Association for Records Managers and Administrators) rules in alphabetic card and correspondence filing exercises.
6. Apply procedures for maintaining and controlling records including requisitioning, charging-out, returning, and reserving files.
7. Discuss records retention cycle including control procedures for transferring, storing, and destruction of files.
8. Recognize the use of color as a method for improving efficiency in filing systems.

View Course Outcomes

OATS 120 Accounting Procedures 3 Credits (3)
Business accounting principles and procedures. Use of special journals, cash control, and merchandising concepts. Reports for sole proprietorships.
View Course Outcomes

OATS 121 Accounting Procedures II 3 Credits (3)
Continuation of OATS 120, emphasizing accounting principles and procedures for notes and interest, depreciation, partnerships and corporations, cash flow and financial statement analysis. (2+2P)
Prerequisite(s): OATS 120 or ACCT 2110
Repeatable: up to 3 credits
View Course Outcomes

OATS 140 Payroll Accounting 3 Credits (3)
Payroll procedures including payroll tax forms and deposits. (2+2P)
Prerequisite(s): ACCT 2110 or OATS 120
Repeatable: up to 3 credits
View Course Outcomes

OATS 150 Medical Terminology 3 Credits (3)
Understanding of the basic elements of medical words. Use of medical abbreviations. . Cross listed with: NURS 150, AHS 120 and HIT 150.
Crosslist: NURS 150
Learning Outcomes
1. Demonstrate proficient interpretation of medical abbreviations.
2. Explain the importance of utilizing medical terms/abbreviations in the medical field
3. Define medical terms correctly interpret medical language including roots, prefixes and suffixes
4. Pronounce medical terms correctly
5. Spell medical terms correctly

View Course Outcomes

OATS 169 Spanish Grammar for Business Administration 3 Credits (3)
Introductory course in Spanish grammar and practical business terms required for the proper application of fundamental oral and written business communication skills for Spanish speakers in the field of business administration.
Prerequisite(s): Spanish-speaking ability and computer keyboarding ability
View Course Outcomes

OATS 170 Office Communications in Spanish I 3 Credits (3)
Develop oral and written communications skills of native or near-native speakers of Spanish. The student will learn basic letter writing skills, customer service techniques, and telephone etiquette in Spanish. Spanish speaking ability is required to enroll in this course. Consent of Instructor required.
Repeatable: up to 3 credits
View Course Outcomes

OATS 171 Office Communications in Spanish II 3 Credits (3)
Develop oral and written communications skills of native or near-native speakers of Spanish. Emphasis placed on learning the office assistant's role within the office environment. Compose complex business correspondence and learn to make international travel arrangements. Consent of Instructor required.
Prerequisite(s): OATS 170, Spanish speaking ability
Repeatable: up to 3 credits
View Course Outcomes

OATS 191 Taking Minutes and Proofreading 3 Credits (3)
Preparation and practice producing minutes suited for different meeting types and purposes. Provides strategies to prepare for meetings, to record proceedings, and to transcribe minutes while incorporating proofreading skills practice. Topics include legal requirements, meeting types, minute formats, and duties/expectations of the minute taker and the meeting chair. Graded: S/U.
Repeatable: up to 3 credits
View Course Outcomes

OATS 202 Keyboarding: Document Production 3 Credits (3)
Further development of keyboarding speed and accuracy. Production of complex letters, memos, tables, reports and business forms. A speed and accuracy competency requirement must be met. (2+2P)
View Course Outcomes

OATS 203 Office Equipment and Procedures I 3 Credits (3)
Office organization, telephone techniques, equipment and supplies, handling meetings, human relations, mail procedures, and travel. (2+2P)
Repeatable: up to 3 credits
View Course Outcomes

OATS 205 Accounting Software I 3 Credits (3)
Introduction to accounting software. (2+2P)
Prerequisite(s): Working knowledge of computers and accounting or consent of instructor
Repeatable: up to 3 credits
View Course Outcomes

OATS 207 Machine Transcription 3 Credits (3)
Creating office documents using transcribing equipment and word processing software. Emphasis on proofreading, editing and grammar. (2+2P)
Prerequisite(s): BOT 105
Repeatable: up to 3 credits
View Course Outcomes

OATS 208 Medical Office Procedures 3 Credits (3)
Current computerized and traditional administrative medical office procedures will be introduced. Practical knowledge on managing required record keeping in a medical office environment will be emphasized.
Repeatable: up to 3 credits
Learning Outcomes
1. Introduce the health student to the skills necessary to assist healthcare professionals in the health medical office and/or facility.
2. Provide the health professional skills and techniques necessary to assist in the healthcare setting.
3. Discuss and demonstrate the professional and career responsibilities of an administrative medical assistant.
4. Communicate effectively as a receptionist in the medical office environment.
5. Demonstrate appropriate and effective records management including proper filing procedures, handling medical records and drug and prescription records.

View Course Outcomes

OATS 209 Business and Technical Communications 3 Credits (3)
Effective written communication skills and techniques for career success in the work place. Composition of letters, memos, short reports, forms, and proposals, and technical descriptions and directions. Prerequisites: ENGL 1110G and computer keyboarding ability or consent of instructor.
View Course Outcomes

OATS 211 Information Processing I 3 Credits (3)
Defining and applying fundamental information processing concepts and techniques using the current version of leading software. (2+2P)
Repeatable: up to 6 credits
View Course Outcomes

OATS 213 Word Processing I 3 Credits (3)
Operation and function of a word processor. Specific equipment to be announced in the Schedule of Classes. (2+2P)
Prerequisite(s): OATS 101 or keyboarding proficiency
View Course Outcomes

OATS 214 Word Processing II 3 Credits (3)
Advanced operation and functions of a word processor. Specific equipment to be announced in the Schedule of Classes. (2+2P)
Prerequisite(s): OATS 213 or consent of instructor
View Course Outcomes

OATS 215 Spreadsheet Applications 1-3 Credits
Use of spreadsheets to include graphics and business applications.
Repeatable: under different subtitles listed in the Schedule of Classes
Crosslist: OECS 215
View Course Outcomes

OATS 217 Powerpoint Presentation 3 Credits (3)
Comprehensive, hands-on approach to learning and applying basic and advanced features of PowerPoint. These include text enhancements, objects, fills, colors, animation, charts, sound, video, and hyperlinks. Students demonstrate appropriate audience and communication tools to deliver presentations. Prerequisites: OATS 211 or ability to demonstrate keyboarding and Windows proficiency.
View Course Outcomes

OATS 218 Information Processing II 3 Credits (3)
Advanced information processing techniques using current version of leading software. (2+2P)
Prerequisite(s): OATS 211 or consent of instructor
Repeatable: for a maximum of 6 credits
View Course Outcomes

OATS 220 Internship in Business Office Technology 2 Credits (2)
Experience in a supervised office position. Student must work at least eight hours per week. Prerequisites: sophomore standing and consent of instructor.
Repeatable: for a maximum of 4 credits
View Course Outcomes

OATS 221 Internship I 1-3 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships may be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor. C- or better in the course is required. Consent of Instructor required. BOT,HIT. majors.
View Course Outcomes

OATS 222 Internship II 1 Credit (1)
Continuation of OATS 221. Consent of Instructor required. OATS & HIT majors. Graded: S/U Grading (S/U, Audit).
Prerequisite(s): OATS 221 and consent of instructor
Repeatable: up to 6 credits
View Course Outcomes

OATS 223 Medical Transcription I 3 Credits (3)
Concepts in medical transcription are introduced on how to produce a variety of reports required in a medical office or facility utilizing accurate medical terminology, spelling, grammar, and document formatting. (2+2P)
Prerequisite(s): HIT 150 or AHS 120 and HIT 158 and OATS 209
Repeatable: up to 3 credits
View Course Outcomes

OATS 228 Medical Insurance Billing 3 Credits (3)
Comprehensive overview of the insurance concepts and applications required for successfully and accurately completing and submitting insurance claims and reimbursement processes for various insurance carriers, both private and government, will be emphasized.
Repeatable: up to 3 credits
View Course Outcomes

OATS 233 Advanced Medical Transcription 3 Credits (3)
Builds upon the concepts introduced in Medical Transcription I providing greater understanding of how to produce advanced reports dictated by physicians with increasing speed and accuracy. Emphasis will be on proofreading and editing of operative reports, patient history and physicals, office notes, labor and delivery reports, consultation reports, discharge summaries, and other medical reports. Consent of Instructor required. (2+2P)
Prerequisite(s): OATS 223 and HIT 130
Repeatable: up to 3 credits
View Course Outcomes

OATS 239 Personal Development 3 Credits (3)
Development of a marketable, employable office systems person, to include interview, voice, manners, and apparel.
View Course Outcomes

OATS 240 Introduction to Individual Taxation 3 Credits (3)
Overview of Individual Federal Taxation; awareness of tax problems pitfalls and planning opportunities; focus on individual personal financial concerns and tax planning. One semester of accounting principles/procedures is recommended.
View Course Outcomes

OATS 241 Auditing and Business Issues 3 Credits (3)
Introduction to basic auditing concepts, the purpose for the auditing process, and requirements of persons assisting with the audit process. The course will also deal with issues of business law including contracts, sales, torts, strict liability, and business ethics.
Prerequisite(s): OATS 120 or ACCT 2110
Repeatable: up to 3 credits
View Course Outcomes

OATS 244 Tax Preparation 3 Credits (3)
Introduces basic federal and state tax codes for preparing individual income tax returns. Emphasis on use of tax software.
Prerequisite(s): keyboarding proficiency
View Course Outcomes

OATS 250 Electronic Office Systems 3 Credits (3)
Management of the electronic office. Office use of computers, printers, fax machines, copiers, and scanner concepts will be covered. (2+2P)
Prerequisite(s): OATS 211
View Course Outcomes

OATS 255 Special Topics 1 Credit (1)
Specific subjects to be announced in the Schedule of Classes.
View Course Outcomes

OATS 260 Bookkeeping Simulation Capstone 3 Credits (3)
Refines the professional and technical skills students have learned while completing the Bookkeeping Assistant Option curriculum by demonstrating how coursework ties together. Designed as a bookkeeping assistant capstone course. (2+2P)
Prerequisite(s): OATS 121 or ACCT 2110, OATS 140, OATS 205, and OATS 244, or consent of instructor
View Course Outcomes

OATS 270 Office Administration Technology Capstone 3 Credits (3)
Refines professional skills learned in the BOT program and ties all BOT coursework together. Consent of Instructor required.
Prerequisite(s): OATS 102 or OATS 129; and OATS 120; and OAT S 209 or ENGL 2210G; and OATS 211 or OECS 211
Repeatable: up to 3 credits
Learning Outcomes
1. Construct professional, error-free business documents that demonstrate appropriate formats and ideas in a clear, concise, and correct written and spoken language.
2. Utilize effective administrative skills to enhance the productive operation of the workplace.
3. Demonstrate professional behaviors and workplace ethics for the professional office environment.
4. Demonstrate proficiency in the use of productivity software in business applications.

View Course Outcomes

Paralegal Services (PL S)

PL S 160 Legal System for the Paralegal 3 Credits (3)
Introduction to the court system, administrative agencies, functions of law offices, and professional conduct and legal ethics.
Prerequisite(s): ACT standard score in English of 16 or higher or a Accuplacer score 250 or higher or ENGL 1110G and CCDS 113N
View Course Outcomes

PL S 161 Legal Terminology 3 Credits (3)
Survey of the language of the law that will serve either as an introductory course or as a review course to prepare students for the certification test.
View Course Outcomes

PL S 162 The Virtual Law Office 3 Credits (3)
The Virtual Law Office class is a 'hands-on', project oriented course designated to provide the student with the basic law office skills needed to function successfully in a law office setting. The student will gain a practical, working knowledge of the procedures necessary to work in a law office. The skills learned in the class will directly translate to real life situations.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 180 Constitutional Law for the Paralegal 3 Credits (3)
Case standing of the law of the Constitution and Bill of Rights with regard to day-to-day applications in the law practice. Documents dealing with constitutional problems in both civil and criminal areas of law will be drafted and discussed.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 190 Criminal Law for the Paralegal 3 Credits (3)
Introduction to federal and state criminal law; criminal proceedings, prosecution and defense, sentencing and appeal.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 200 Legal Ethics for the Paralegal 3 Credits (3)
Introduction to ethical dilemmas faced in the workforce and the rules of ethics developed by the American Bar Association, various national paralegal organizations, and the Supreme Court of New Mexico.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 203 Immigration Law 3 Credits (3)
Survey of the basics of immigration law including the rights and obligations of citizenship and the naturalization process.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 221 Internship I 2-4 Credits
Work experience that directly relates to a student's major field of study that provides the student an opportunity to explore career paths and apply knowledge and theory learned in the classroom. Internships can be paid or unpaid. Students are supervised/evaluated by both the employer and the instructor.
Prerequisite(s): PL S 274
View Course Outcomes

PL S 222 Internship II 1-3 Credits
Continuation of PL S 221. Each credit requires specified number of hours of on-the-job work experience.
Prerequisite(s): PL S 221
View Course Outcomes

PL S 231 The Law of Commerce for the Paralegal 3 Credits (3)
Law of contracts, negotiable instruments, bank transfers, secured transactions, debtor-creditor relations, agency, and business types and their formation. Students will study the relevant statutes as well as draft documents associated with these types of legal practice.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 272 Bankruptcy Law for the Paralegal 3 Credits (3)
Individual and corporate bankruptcy; the basic principles and processes of bankruptcy law as a system of debtor relief and debt collection.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 274 Legal Research and Writing for the Paralegal I 3 Credits (3)
Legal memoranda, briefs, and pleadings will be prepared and written based on the student s original research. Research materials and techniques will be identified and studied; introduction of computer usage in legal research.
Prerequisite(s): PL S 160 and ENGL 1110G
View Course Outcomes

PL S 275 Tort and Insurance for the Paralegal 3 Credits (3)
Primary legal principles of tort and insurance law and means of establishing insurance plans, types of torts and insurance, as well as use of specific forms and procedures relating to these areas.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 276 Wills, Trusts, and Probate for the Paralegal 3 Credits (3)
Cases and statutes dealing with wills, trusts, and probate. Emphasis on preparation and drafting of documents and the application of the law and documents to the client s problems.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 277 Family Law for the Paralegal 3 Credits (3)
Methods of conducting client interviews and drafting of pleadings and research relative to families. Laws relating to marriage, divorce, custody, support, adoption, name change, guardianship, and paternity.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 278 Litigation for the Paralegal 3 Credits (3)
The law of procedure and evidence will be considered through rules and cases. Case situations will be used to identify and solve problems.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 279 Legal Research and Writing for the Paralegal II 3 Credits (3)
Continuation of PL S 274. Advanced training in legal research problems with a focus on analysis, writing, and preparation of sophisticated legal memoranda and documents.
Prerequisite(s): PL S 274
View Course Outcomes

PL S 280 Interviewing and Investigation for the Paralegal 3 Credits (3)
Techniques of legal interviewing and investigation with emphasis on development of human relations and communication skills.
Prerequisite(s): PL S 160
View Course Outcomes

PL S 298 Independent Study 1-3 Credits
Individual studies directed by consenting faculty with prior approval by department head.
Prerequisite(s): PL S 160
View Course Outcomes

Paramedic (OEEM)

OEEM 101 CPR for the Health Care Professional 1 Credit (1)
Students learn identification and response to airway and circulation emergencies, including use of a SAED and accessing the EMS system. This course is taught using the American Heart Association guidelines for course completion. Required: grade of C or better
View Course Outcomes

OEEM 103 Heartsaver First Aid/CPR 1 Credit (1)
Students learn how to identify and respond to airway, circulation and basic first aid emergencies, to include using a SAED and accessing the EMS system. This course is intended for students who are not Allied Health Majors and utilizes the American Heart Association guidelines for course completion.
View Course Outcomes

OEEM 115 First Responder Prehospital Professional 3 Credits (3)
Provides training in prehospital medical and traumatic emergencies. Consent of instructor required. Requires a C or better to pass. Restricted to majors. (2+3P)
Corequisite(s): OEEM 101
View Course Outcomes

OEEM 120 Emergency Medical Technician Basic 6 Credits (6)
EMT-Basic skills to include care of soft tissue and muscular/skeletal injuries, circulatory, nervous, general medical and respiratory emergencies. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEEM majors.
Corequisite(s): OEEM 101, OEEM 120L, OEEM 121
Prerequisite(s)/Corequisite(s): OEEM 153
Repeatable: up to 6 credits
View Course Outcomes

OEEM 120 L Emergency Medical Technician Basic Lab 2 Credits (2)
EMT-Basic skills development with emphasis on assessment, skills competency and team-work in patient care in the prehospital setting. (6P). Restricted to: OEEM majors.
Corequisite(s): OEEM 101, OEEM 120, OEEM 121
Prerequisite(s)/Corequisite(s): OEEM 153
View Course Outcomes

OEEM 121 Emergency Medical Technician Basic Field/Clinical 1 Credit (1)
Covers the patient care experience provided through assigned shifts in the hospital and/or ambulance setting. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEEM majors.
Prerequisite(s)/Corequisite(s): OEEM 101, OEEM 120, OEEM 120L OEEM 153
View Course Outcomes

OEEM 150 Emergency Medical Technician Intermediate 5 Credits (5)
Theory of the roles, responsibilities and scope of practice of the EMT-Intermediate. Assessment and management of respiratory, cardiac, trauma, environmental, behavior, reproduction, and childhood emergencies. Consent of Instructor required. Restricted to: OEEM majors.
Prerequisite(s): Current EMT-basic license, pretest and consent of instructor
Repeatable: up to 5 credits
View Course Outcomes

OEEM 150 L Emergency Medical Technician Intermediate Lab 2 Credits (2)
EMT-Intermediate skills development with an emphasis on assessment, skills competency, and team work in patient care in the prehospital setting. Requires a C or better to pass. Restricted to: OEEM majors. (6P)
Prerequisite(s)/Corequisite(s): OEEM 150, OEEM 151
View Course Outcomes

OEEM 151 Emergency Medical Technician Intermediate Field/Clinical 2 Credits (2)
Patient care experience provided through assigned shifts in the hospital and/or ambulance setting. Restricted to: OEEM majors. (6P)
Prerequisite(s)/Corequisite(s): OEEM 150, OEEM 150 L
View Course Outcomes

OEEM 153 Introduction to Anatomy and Physiology for the EMS Provider 3 Credits (3)
To properly assess and manage a patient, a prehospital provider must have a solid foundation in human anatomy and physiology. This course provides a systematic approach to building this foundation. Grade of C or better is required to pass the course. Consent of Instructor required.
View Course Outcomes

OEEM 155 Special Topics 1 Credit (1)
Specific topics to be listed in Schedule of Classes.
Repeatable: for a maximum of 10 credits
View Course Outcomes

OEEM 177 Emergency Medical Services Instructor 4 Credits (4)
Theory of student learning, methodology, instructional components, evaluation, and course coordination for the EMS profession. Consent of Instructor required.
Prerequisite(s): Minimum of an EMT-Basic License required
Repeatable: up to 4 credits
View Course Outcomes

OEEM 201 Human Pathophysiology 3 Credits (3)
Overview of anatomy and physiology. Emphasis on human body pathophysiology including a medical illness component. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEMS, OEEM majors. (2+3P)
Prerequisite(s): OEEM 120, OEEM 120 L
View Course Outcomes

OEEM 202 EMT-Paramedic Respiratory Emergencies 3 Credits (3)
Review anatomy, physiology and pathophysiology of the respiratory system. Assessment and management of respiratory emergencies and acute respiratory failure in the prehospital setting. Requires a C or better to pass. Consent of Instructor required. Restricted to: OEMS, OEEM majors. (2+3P)
Prerequisite(s): OEEM 212
View Course Outcomes

OEEM 203 EMT-Paramedic Trauma Emergencies 3 Credits (3)
Study of the effects of trauma on the human body. Assessment and management of trauma patients and scenes, including vehicular extrication. Consent of Instructor required. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 216
View Course Outcomes

OEEM 206 Introduction to Advanced Prehospital Care 3 Credits (3)
Overview of prehospital care including roles and responsibilities of EMT-P, EMS systems, medical, legal, ethical issues, stress management, medical terminology, medical report writing and communication. Includes ride-along with ambulance and dispatch observation. Requires a C or better to pass. Consent of instructor required. Restricted to OEEM majors. (2+3P)
Prerequisite(s): OEEM 120
View Course Outcomes

OEEM 207 Introduction to Pharmacology 3 Credits (3)
Drug actions, factors modifying drugs and dosages: characteristics of drug effects, and drug history and dosages. Prehospital protocol, transport, and common patient prescription medications. Requires a C or better to pass. Restricted to OEEM majors. (2+3P)
Prerequisite(s): OEEM 120
View Course Outcomes

OEEM 210 Cardiac Rhythm Interpretation 3 Credits (3)
Cardiac conduction system: electrophysiology, electrocardiogram, monitor, atrial, sinus, ventricular and junctional dysrhythmias, multiple lead EKG and 12 lead EKG interpretation. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 201, OEEM 206, OEEM 207
View Course Outcomes

OEEM 212 EMT-Paramedic Cardiovascular Emergencies 3 Credits (3)
Review anatomy, physiology, and pathophysiology of cardiovascular system. Assessment and management of cardiovascular emergencies in the prehospital setting. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 210
Repeatable: up to 3 credits
View Course Outcomes

OEEM 213 EMT-Paramedic: Medical Emergencies I 3 Credits (3)
Study of the disease process; assessment and management of neurological, endocrine, gastrointestinal, renal emergencies and infectious disease. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 212
Repeatable: up to 3 credits
View Course Outcomes

OEEM 214 EMT-Paramedic: Medical Environmental Emergencies II 3 Credits (3)
Study of disease process, assessment, and management of poisoning, drug and alcohol abuse, environmental, behavioral and geriatric emergencies. Requires a C or better to pass. Restricted to: OEEM majors. (2+3P)
Prerequisite(s): OEEM 213
Repeatable: up to 3 credits
View Course Outcomes

OEEM 216 EMT-Paramedic: Reproductive and Childhood Emergencies 3 Credits (3)
Covers anatomy, physiology, disease processes, assessment and management of male and female reproductive system emergencies, childhood emergencies and growth and development. Restricted to majors. Requires a C or better to pass. (2+3P)
Prerequisite(s): OEEM 214 and consent of instructor
View Course Outcomes

OEEM 218 Pediatric Advance Life Support for the Healthcare Profession 1 Credit (1)
Identify and respond to life threatening pediatric emergencies. Taught using the American Heart Association guidelines for course completion. Graded S/U.
Prerequisite(s): OEEM 101
View Course Outcomes

OEEM 219 Advance Cardiac Life Support for the Healthcare Provider 1 Credit (1)
Identify and respond to life threatening cardiac emergencies. Taught using the American Heart Association guidelines for course completion. Graded S/U.
Prerequisite(s): OEEM 101
View Course Outcomes

OEEM 230 EMT-Paramedic Clinical Experience I 3 Credits (3)
Assigned clinical experiences in patient assessment and specific management techniques. Successful completion includes minimum required hours and completion of course objectives. Restricted to majors. Requires a C or better to pass. (9P)
View Course Outcomes

OEEM 231 EMT-Paramedic Clinical Experience II 3 Credits (3)
Assigned clinical experiences in patient assessment and specific management techniques. Successful completion includes minimum required hours and completion of course objectives. Requires a C or better to pass. Restricted to: OEEM majors. (9P)
Prerequisite(s)/Corequisite(s): OEEM 230
View Course Outcomes

OEEM 240 EMT-Paramedic Field Experience I 3 Credits (3)
Advanced prehospital skills and knowledge. Successful completion of at least the minimum required hours and course objectives. Restricted to majors. Requires a C or better to pass. (9P)
View Course Outcomes

OEEM 241 EMT-Paramedic Field Experience II 3 Credits (3)
Continued focus on advanced prehospital skills and knowledge, with increasing responsibility for patient care. Successful completion includes meeting at least the minimum required hours and course objectives. Requires a C- or better to pass.
Prerequisite(s)/Corequisite(s): OEEM 240
View Course Outcomes

OEEM 242 EMT-Paramedic Field Internship 3 Credits (3)
Emphasis on total patient care responsibility and team leadership skills. Successful completion includes meeting the minimum hours required and course objectives. Restricted to: OEEM majors. (9P)
Prerequisite(s): OEEM 231, OEEM 241
View Course Outcomes

OEEM 243 EMT-Paramedic Preparation for Practice 2 Credits (2)
Comprehensive final program testing to prepare for licensing examination. Requires a C or better to pass. Restricted to: OEEM majors.
Prerequisite(s): OEEM 242
View Course Outcomes

Philosophy (PHIL)

PHIL 1115G Introduction to Philosophy 3 Credits (3)
In this course, students will be introduced to some of the key questions of philosophy through the study of classical and contemporary thinkers. Some of the questions students might consider are: Do we have free will? What is knowledge? What is the mind? What are our moral obligations to others? Students will engage with and learn to critically assess various philosophical approaches to such question.
View Course Outcomes

PHIL 1120G Logic, Reasoning, and Critical Thinking 3 Credits (3)
The purpose of this course is to teach students how to analyze, critique, and construct arguments. The course includes an introductory survey of important logical concepts and tools needed for argument analysis. These concepts and tools will be use to examine select philosophical and scholarly texts.
Learning Outcomes
1. Comprehend components of arguments.
2. Acquire a general understanding of the essential logical concepts needed for argument analysis, such as validity, soundness, deduction, and induction.
3. Critically assess arguments with an aim toward identifying what constitutes effective and reasonable argument strategies.
4. Learn to identify common logical fallacies.
5. Apply knowledge of argumentation principles to philosophical and scholarly texts.

View Course Outcomes

PHIL 1140G Quest for God 3 Credits (3)
An effort to understand the religious life; a consideration of some of the traditional approaches to God and what it means to be religious.
View Course Outcomes

PHIL 1145G Philosophy, Law, and Ethics 3 Credits (3)
An introduction to practical problems in moral, social, political, and legal philosophy. Topics to be discussed may include ecology, animal rights, pornography, hate speech on campus, same-sex marriage, justice, abortion, terrorism, treatment of illegal immigrants, and New Mexican Aboriginal Peoples land claims.
View Course Outcomes

PHIL 1155 Philosophy of Music 3 Credits (3)
This is an introductory course in the philosophy of music. This course will focus on two general themes. The first will concern the nature of music: What is music? Why is music important? How can we distinguish good music from bad music? The second will reflect upon how specific pieces of music speak to certain traditional philosophical problems, perhaps in a way unique to music. We will draw examples from a wide variety of musical genres, from classical music, gospel, jazz and blues to folk, rock, punk and rap. Students will be encouraged to think philosophically about their preferred musical form.
View Course Outcomes

PHIL 2110G Introduction to Ethics 3 Credits (3)
This course introduces students to the philosophical study of morality and will explore questions concerning our human obligations to others and related issues. Students may be asked to relate various approaches to ethics to present-day ethical debates and their own lives.
View Course Outcomes

PHIL 2230G Philosophical Thought 3 Credits (3)
In this course, students will grapple with some of the key questions of philosophy through the study of classical and contemporary thinkers. Students will become familiar with the perennial problems in subfields of philosophy such as metaphysics, epistemology, ethics, and aesthetics. They will learn to approach these problems both critically and sympathetically.
View Course Outcomes

Physical Education (PHED)

PHED 1110 Dance 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1230 Individual Sport 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1290 Team Sport 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1310 Swim I 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation.
View Course Outcomes

PHED 1320 Aqua Fit 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1410 Yoga 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1430 Pilates 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1510 Training 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1620 Fitness 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1630 Career Fitness 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 10 credits.
View Course Outcomes

PHED 1670 Aerobics 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation. Repeatable: up to 6 credits.
View Course Outcomes

PHED 1830 Running 1 Credit (1)
Individual sections vary based on topic content; audience; type or level of participation.
Repeatable: up to 4 credits
View Course Outcomes

PHED 1910 Outdoor Experience 1 Credit (1)
Individual sections vary based on topic content; audience�; type or level of participation. Repeatable: up to 6 credits.
Learning Outcomes
  1. Varies

View Course Outcomes

PHED 2996 Topics in Physical Education 1-3 Credits
Specific subjects to be announced in the Schedule of Classes. Each offering will carry appropriate subtitle. Repeatable: up to 6 credits.
View Course Outcomes

Physics (PHYS)

PHYS 1111 Introductory Computational Physics 3 Credits (3)
Introduction to computational techniques for the solution of physics-related problems. (2+2P)
Prerequisite(s): a C- or better in MATH 1220G or MATH 1250G or MATH 1511G
View Course Outcomes

PHYS 1112 Introductory Physics for the Health Sciences 3 Credits (3)
Algebra-level introduction to topics required for the Health Sciences including basic mechanics (including sound, mechanical waves and fluids), heat and thermodynamics, electricity and magnetism, optics and electromagnetic waves, atomic and nuclear physics and applications to medical imaging.
Prerequisite(s): MATH 1215
Learning Outcomes
  1. The objective of the course is to familiarize the student with the concepts and methods used in the underlying physics associated with various Health Science disciplines.
  2. The course will demonstrate how the basic principles of mechanics, thermodynamics, electricity, magnetism, electromagnetic waves and optics can be applied to solve particular problems in Health Sciences applications. Introduces the student to selected topics in modern physics including quantum physics, atomic and nuclear physics.

View Course Outcomes

PHYS 1115G Survey of Physics with Laboratory 4 Credits (4)
Overview of the concepts and basic phenomena of physics. This course provides a largely descriptive and qualitative treatment with a minimum use of elementary mathematics to solve problems. No previous knowledge of physics is assumed. Includes laboratory. (3+3P)Provides lab.
Provides Lab
View Course Outcomes

PHYS 1125G The Physics of Music 4 Credits (4)
Introduction for non-science majors to basic concepts, laws, and skills in physics, in the context of a study of sound, acoustics, and music. (3+2P)
View Course Outcomes

PHYS 1230G Algebra-Based Physics I 3 Credits (3)
An algebra-based treatment of Newtonian mechanics. Topics include kinematics and dynamics in one and two dimensions, conservation of energy and momentum, rotational motion, equilibrium, and fluids.
View Course Outcomes

PHYS 1230L Algebra-based Physics I Laboratory 1 Credit (1)
A series of laboratory experiments associated with the material presented in PHYS 1230.
Prerequisite(s)/Corequisite(s): PHYS 1230G
Learning Outcomes
  1. Explain the scientific method.
  2. Test ideas using modern laboratory equipment.
  3. Estimate experimental uncertainties using statistical methods.
  4. Use computers to analyze and report laboratory results.
  5. Draw appropriate conclusions from quantitative scientific observations.
  6. Accurately and clearly communicate the results of scientific experiments.

View Course Outcomes

PHYS 1240G Algebra-Based Physics II 3 Credits (3)
The second half of a two semester algebra-based introduction to Physics. This course covers electricity, magnetism and optics.
Prerequisite(s): a C- or better in PHYS 1230G or PHYS 2230G
View Course Outcomes

PHYS 1240L Algebra-based Physics II Laboratory 1 Credit (1)
A series of laboratory experiments associated with the material presented in PHYS 1240.
Prerequisite(s)/Corequisite(s): PHYS 1240
Learning Outcomes
1. Explain the scientific method.
2. Test ideas using modern laboratory equipment.
3. Estimate experimental uncertainties using statistical methods.
4. Use computers to analyze and report laboratory results.
5. Draw appropriate conclusions from quantitative scientific observations.
6. Accurately and clearly communicate the results of scientific experiments.

View Course Outcomes

PHYS 1310G Calculus -Based Physics I 3 Credits (3)
A calculus level treatment of classical mechanics and waves, which is concerned with the physical motion concepts, forces, energy concepts, momentum, rotational motion, angular momentum, gravity, and static equilibrium.
Prerequisite(s): a C- or better in MATH 1511G or higher
View Course Outcomes

PHYS 1310L Calculus - Based Physics I Laboratory 1 Credit (1)
A series of laboratory experiments associated with the material presented in Calculus-based Physics I. Students will apply the principles and concepts highlighting the main objectives covered in coursework for Calculus-based Physics I.
Prerequisite(s)/Corequisite(s): PHYS 1310G
Learning Outcomes
1. Develop a reasonable hypothesis.
2. Work effectively as part of a team.
3. Take measurements and record measured quantities to the appropriate precision.
4. Estimate error sources in experimental techniques.
5. Apply appropriate methods of analysis to raw data, including using graphical and statistical methods via computer-based tools.
6. Determine whether results and conclusions are reasonable.
7. Present experimental results in written form in appropriate style and depth.
8. Experience the relationship between theory and experiment.

View Course Outcomes

PHYS 1311 Problems in Calculus-Based Physics I 0.5 Credits (0.5)
This is a supplemental course for Calculus-based Physics I. Repeatable: up to 1 credits.
Corequisite(s): PHYS 1310G
View Course Outcomes

PHYS 1320G Calculus-Based Physics II 3 Credits (3)
A calculus level treatment of classical electricity and magnetism. It is strongly recommended that this course is taken at the same time as Calculus-based Physics II laboratory.
Prerequisite(s): a C- or better in PHYS 2110 or PHYS 1310G and MATH 1521G or higher
View Course Outcomes

PHYS 1320L Calculus-Based Physics II Laboratory 1 Credit (1)
A series of Laboratory experiments associated with the material presented in Calculus-Based Physics II. Students will apply the principles and concepts highlighting the main objectives covered in coursework for Calculus-Based Physics II.
Prerequisite(s): A C- or better in PHYS 2110L or PHYS 1310L
Prerequisite(s)/Corequisite(s): PHYS 1320G
Learning Outcomes
1. Develop a reasonable hypothesis.
2. Work effectively as part of a team.
3. Take measurements and record measured quantities to the appropriate precision.
4. Estimate error sources in experimental techniques.
5. Apply appropriate methods of analysis to raw data, including using graphical and statistical methods via computer-based tools.
6. Determine whether results and conclusions are reasonable.
7. Present experimental results in written form in appropriate style and depth.
8. Experience the relationship between theory and experiment.

View Course Outcomes

PHYS 1321 Problems in Calculus-Based Physics II 0.5 Credits (0.5)
This is a supplemental course for Calculus-based Physics II.
Corequisite(s): PHYS 1320G
View Course Outcomes

PHYS 2110 Mechanics 3 Credits (3)
Newtonian mechanics.
Prerequisite(s)/Corequisite(s): MATH 1511G or higher
View Course Outcomes

PHYS 2110L Experimental Mechanics 1 Credit (1)
Laboratory experiments associated with the material presented in PHYS 2110. Science majors. (3P)
Prerequisite(s)/Corequisite(s): PHYS 2110
View Course Outcomes

PHYS 2111 Problems in Mechanics 1 Credit (1)
This Optional workshop as a supplement to PHYS 2110. The tutorial sessions focus on reasoning and hands-on problem solving. Repeatable: up to 1 credit.
Corequisite(s): PHYS 2110
Learning Outcomes
1. analyze real world phenomena by constructing simplified idealized models and appropriate mathematical reasoning to make predictions or explain a phenomena or function.
2. use multiple representations to build, interpret and communicate the model, including visual representations such as sketches or diagrams, mathematical expressions, graphs, or text.
3. in the contexts of concepts and physical laws discussed in PHYS 2110, apply quantitative analysis to solve problems, including the use of scientific notation, unit conversion and vector algebra.
4. self-check reasonableness of assumptions and solutions, making use of limiting cases or symmetry arguments.
5. develop learning strategies and use metacognition to promote thinking in the discipline.

View Course Outcomes

PHYS 2120 Heat, Light, and Sound 3 Credits (3)
Calculus-level treatment of thermodynamics, geometrical and physical optics, and sound. Repeatable: up to 3 credits.
Prerequisite(s): a C- or better in PHYS 2110 or PHYS 1310G, and MATH 1511G or higher
View Course Outcomes

PHYS 2120L Heat, Light, and Sound Laboratory 1 Credit (1)
Laboratory experiments associated with the material presented in PHYS 2120. Science majors. (+3P)
Prerequisite(s): a C- or better in PHYS 2110L or PHYS 1310L
Prerequisite(s)/Corequisite(s): PHYS 2120
Learning Outcomes

View Course Outcomes

PHYS 2121 Supplemental Instruction to PHYS 2120 1 Credit (1)
This optional workshop supplements PHYS 2120 Heat, Light, and Sound. Students actively apply concepts and methods introduced in PHYS 2120 to problem solving and quantitative analysis. Repeatable: up to 1 credit.
Corequisite(s): PHYS 2120
Learning Outcomes
   1. analyze real world phenomena by constructing simplified idealized models and appropriate mathematical reasoning to make predictions or explain a phenomena or function.
   2. use multiple representations to build, interpret and communicate the model, including visual representations such as sketches or diagrams, mathematical expressions, graphs, or text.
   3. in the contexts of concepts and physical laws discussed in PHYS 2120, apply quantitative analysis to solve problems involving wave propagation and interference, geometric optics, heat transfer and thermodynamics.
   4. self-check reasonableness of assumptions and solutions, making use of limiting cases or symmetry arguments.
   5. develop learning strategies and use metacognition to promote thinking in the discipline.

View Course Outcomes

PHYS 2140 Electricity and Magnetism 3 Credits (3)
Charges and matter, the electric field, Gauss law, the electric potential, the magnetic field, Amperes law, Faradays law, electric circuits, alternating currents, Maxwells equations, and electromagnetic waves. Repeatable: up to 3 credits.
Prerequisite(s): a C- or better in PHYS 2110 or PHYS 1310G, and MATH 1511G or higher
Prerequisite(s)/Corequisite(s): MATH 1521G
View Course Outcomes

PHYS 2140L Electricity & Magnetism Laboratory 1 Credit (1)
Laboratory experiments associated with the material presented in PHYS 2140. (+3P)
Prerequisite(s): a C- or better in PHYS 2110 or PHYS 1310G
Prerequisite(s)/Corequisite(s): PHYS 2140
Learning Outcomes

View Course Outcomes

PHYS 2141 Supplemental Instruction to PHYS 2140 1 Credit (1)
Optional workshop as a supplement to PHYS 2140. The tutorial sessions focus on reasoning and hands-on problem solving.
Corequisite(s): PHYS 2140
Learning Outcomes
   1. Analyze real-world phenomena by constructing simplified idealized models and appropriate mathematical reasoning to make predictions or explain a phenomenon or function.
   2. Use multiple representations to build, interpret and communicate the model, including visual representations such as sketches or diagrams, mathematical expressions, graphs, or text.
   3. In the contexts of concepts and physical laws discussed in PHYS 2140, apply quantitative analysis to solve problems, including the use of symmetry to study electric and magnetic fields. Practice concepts of calculus applied to charge and current distributions.
   4. Self-check reasonableness of assumptions and solutions, making use of limiting cases or symmetry arguments.
   5. Develop learning strategies and use metacognition to promote thinking in the discipline.

View Course Outcomes

PHYS 2230G General Physics for Life Sciences I 3 Credits (3)
This algebra-based introduction to general physics covers mechanics, waves, sound, and heat. Special emphasis is given to applications in the life sciences. This course is recommended for students in the life sciences and those preparing for the physics part of the MCAT.
Prerequisite(s): A C or better in MATH 1215 or higher
View Course Outcomes

PHYS 2230L Laboratory to General Physics for Life Sciences I 1 Credit (1)
Laboratory experiments in topics associated with material presented in PHYS 2230G.
Prerequisite(s)/Corequisite(s): PHYS 2230G
View Course Outcomes

PHYS 2231 Problems in Algebra-based Physics I 1 Credit (1)
This optional workshop supplements Physics for Life Sciences I. The tutorial sessions focus on reasoning and hands-on problem solving.
Corequisite(s): PHYS 2230G
View Course Outcomes

PHYS 2240G General Physics for Life Sciences II 3 Credits (3)
This algebra-based course covers electricity, magnetism, light, atomic physics, and radioactivity. Special emphasis is given to applications in the life sciences This course is recommended for students in the life sciences and those preparing for the physics part of the MCAT.
Prerequisite(s): a C- or better in PHYS 1230G or PHYS 2230G, and MATH 1220G or higher
View Course Outcomes

PHYS 2240L Laboratory to General Physics for Life Sciences II 1 Credit (1)
Laboratory experiments in topics associated with material presented in PHYS 2240G.
Prerequisite(s)/Corequisite(s): PHYS 2240G
View Course Outcomes

PHYS 2241 Problems in Algebra-based Physics II 1 Credit (1)
This optional workshop is a supplement to Physics for Life Science II. The tutorial sessions focus on reasoning and hands-on problem solving.
Corequisite(s): PHYS 2240G
Repeatable: up to 1 credits
View Course Outcomes

PHYS 2996 Topics in Physics 1-3 Credits
Topics to be announced in the Schedule of Classes. Repeatable: for a maximum of 12 credits.
View Course Outcomes

PHYS 2997 Independent Study in Physics 3 Credits (3)
Individual analytical or laboratory studies directed by a faculty member. Repeatable: for a maximum of 6 credits.Provides lab.
Provides Lab
View Course Outcomes

Political Science (POLS)

POLS 1110G Introduction to Political Science 3 Credits (3)
This course covers fundamental concepts in political science, such as political theories, ideologies, and government systems.
View Course Outcomes

POLS 1111 Introductory Government Seminar 1 Credit (1)
Introduction to the government major. Designed to assist students in planning college experience and preparing for upper division course work and research.Graded: S/U
Learning Outcomes

View Course Outcomes

POLS 1120G American National Government 3 Credits (3)
This course explains the role of American national government, its formation and principles of the Constitution; relation of state to the national government; political parties and their relationship to interest groups. This course also explains the structure of the legislative, executive, and judicial branches.
View Course Outcomes

POLS 1130G Issues in American Politics 3 Credits (3)
This course is designed to introduce the students to the contemporary study of American political issues. The course analysis of government policies, examining various approaches to the economy, democracy and the structure and the function of American political institutions.
View Course Outcomes

POLS 2120G International Relations 3 Credits (3)
This course covers the analysis of significant factors in world politics, including nationalism, national interest, political economy, ideology, international conflict and collaboration, balance of power, deterrence, international law, and international organization.
View Course Outcomes

POLS 2996 Topics in Political Science 1-3 Credits
Specific topics to be announced in Schedule of Classes. Repeatable: for a maximum of 12 credits.
View Course Outcomes

Portuguese (PORT)

PORT 1110 Portuguese I 3 Credits (3)
Designed for students with no previous exposure to Portuguese, this course develops basic listening, speaking, reading, and writing skills. This is an introductory course aimed at teaching the student to communicate in Portuguese in everyday situations.
Learning Outcomes

View Course Outcomes

PORT 1120 Portuguese II 3 Credits (3)
A continuation of Portuguese I, students will develop a broader foundation in skills gained during the first semester, including understanding, speaking, reading and writing Portuguese. Students will also gain more in- depth knowledge of Portuguese-speaking cultures.
Learning Outcomes

View Course Outcomes

Psychology (PSYC)

PSYC 1110G Introduction to Psychology 3 Credits (3)
This course will introduce students to the concepts, theories, significant findings, methodologies, and terminology that apply to the field of psychology.
View Course Outcomes

PSYC 2110 Social Psychology 3 Credits (3)
This course is an introduction to the scientific study of human social influence and interacting, and explores how an individual's actions, emotions, attitudes and thought processes are influenced by society and other individuals.
Learning Outcomes

View Course Outcomes

PSYC 2120 Developmental Psychology 3 Credits (3)
Study of human physical and psychological change and stability from a lifespan development perspective.
Learning Outcomes

View Course Outcomes

PSYC 2221 Applied Psychology 3 Credits (3)
Explanation of the psychological principles of everyday living. Emphasizes motivation, learning of intelligent behavior, and applications of psychology to social issues.
Learning Outcomes

View Course Outcomes

PSYC 2230 Psychology of Adjustment 3 Credits (3)
This course focuses on the individual's adjustment to society, and the application of psychological principles to the understanding of adjustment.
Learning Outcomes

View Course Outcomes

PSYC 2311 Service Learning 3 Credits (3)
Physiological and psychological impact of drug use on human behavior. Emphasizes practical applications of intervention and prevention in the community.
Learning Outcomes

View Course Outcomes

Public Health Sciences (PHLS)

PHLS 1110G Personal Health & Wellness 3 Credits (3)
A holistic and multi-disciplinary approach towards promoting positive lifestyles. Special emphasis is placed on major problems that have greatest significance to personal and community health. Topics to include nutrition, stress management, fitness, aging, sexuality, drug education, and others. Repeatable: up to 3 credits.
View Course Outcomes

PHLS 2110 Foundations of Health Education 3 Credits (3)
Role and responsibility of the health educator with emphasis on small group dynamics, oral and written communication skills, building community coalitions and introduction to grant writing. Cannot receive credit for both PHLS 2110 and PHLS 375. Repeatable: up to 3 credits.
Prerequisite(s): PHLS 1110G
Learning Outcomes
1. By the conclusion of this course, students successfully completing this course should be able to:
2. Define health, three levels of prevention, health education and health promotion, and describe the major determinants of health.
3. Describe the 7 major areas of responsibility, major competencies and sub-competencies of a professional health educator and the CHES's possible roles in various community health settings.
4. Describe and examine the historical context and development of the profession of health education.
5. Identify and critique major processes and practices of health education programming.
6. Describe the steps involved in conducting needs assessments, program and intervention planning, implementation, and program evaluation.
7. Identify, examine and describe elected health behavior change theories and models and explore possible applications in health education practice.
8. Describe and discuss the process of community mobilization and building of a community coalition.
9. Identify health issues and describe effective methods/strategies in health education advocacy. 1
10. Describe and discuss the future trends and issues in the professional preparation and practice of professional health educators. 1
11. Demonstrate effective and appropriate oral and written communication skills for health education professionals.

View Course Outcomes

PHLS 2120 Essentials of Public Health 3 Credits (3)
The course will focus on principles and major areas if public health, including ecological and total personal concept of health care system, epidemiological approaches to disease prevention and control. Repeatable: up to 3 credits.
Learning Outcomes
1. Understand the sources of public health data, and how to interpret that information.
2. Access existing health related data. Analyze health related data.
3. Identify populations for health education programs.
4. Incorporate data analysis and principles of community organization.
5. Interpret results from evaluation and research. Infer implications from findings for future health−related activities.
6. Have a basic understanding of health topics faced by various populations.

View Course Outcomes

Science/Math/English/Technology (SMET)

SMET 101 Introduction to Science, Mathematics, Engineering, and Technology 1 Credit (1)
An introductory course for science, mathematics, engineering, or technology students, emphasizing introduction to their disciplines. Development of critical thinking and academic success skills for technical disciplines, as well as degree planning for the major.
View Course Outcomes

SMET 102 Introduction to Engineering Design. 1 Credit (1)
Fundamental concepts of engineering design developed through analysis of case studies and hands-on design projects.
View Course Outcomes

SMET 201 Research for Visiting Community College Students 1 Credit (1)
Research experience for visiting community college students.
View Course Outcomes

Social Work (SOWK)

SOWK 2110G Introduction to Human Services and Social Work 3 Credits (3)
This course is for students who are interested in social welfare issues and/or are considering entering a social service profession. The course presents an overview of social problems, issues and trends, and the network of social agencies developed to address these concerns. The course examines the influence of personal and professional values and ethics on the helping relationship. The concept of social welfare will be discussed from a social work perspective (with an emphasis on social justice), and students will gain a basic understanding of social work in U.S. society, social work career opportunities, and contemporary issues facing social workers. Approaches relevant to work with individuals, families, groups and communities are presented, with special emphasis on Hispanic and Indigenous populations of New Mexico and the Southwest. Repeatable: up to 3 credits.
View Course Outcomes

SOWK 2111 Women's Issues in Social Work 3 Credits (3)
Examines gender-specific social problems and their identification and resolution through the use of social agencies and community resources.
Repeatable: up to 3 credits
Learning Outcomes

View Course Outcomes

Sociology (SOCI)

SOCI 1110G Introduction to Sociology 3 Credits (3)
This course will introduce students to the basic concepts and theories of sociology, as well as to the methods utilized in sociological research. It will address how sociological concepts and theories can be utilized to analyze and interpret our social world, and how profoundly our society and the groups to which students belong influence them. Students will be given the opportunity to challenge their taken for granted or common sense understandings about society, social institutions, and social issues. Special attention will also be paid to the intimate connections between their personal lives and the larger structural features of social life. In addition, the implications of social inequalities, such as race/ethnicity, gender, and social class will be central to the course's examination of social life in the United States.
View Course Outcomes

SOCI 2220 Sociology of Gender 3 Credits (3)
This course is an introduction to the sociology of gender and gender inequalities. While analyzing how masculinity, femininity and other gender forms are socially constructed, we will also analyze how gender intersects with other forms of social stratification such as race, socio-economic status, disability and sexual orientation. Our analysis of gender will focus on gender socialization, gender identities, and how gender forms are deeply rooted and reproduced in social institutions, interactions and relationships.
Learning Outcomes

View Course Outcomes

SOCI 2230 Sociology of Sexuality 3 Credits (3)
This course explores all aspects of human sexuality from a sociological perspective. Topics include, but are not limited to, sex work, intimate relationships, sexual response, political movements, power, and the social construction of sexuality. The course also considers how various social statuses such as ethnicity, gender, and social class intersect with sexuality.
Learning Outcomes

View Course Outcomes

SOCI 2240 Sociology of Intimate Relationships and Family 3 Credits (3)
This course provides an overview of contemporary intimate relationships and families from sociological perspectives. We will examine intimate relationships and families as social constructions whose meanings have changed over time and from place to place. This course will aid students in developing a greater understanding of intimate relationships and families as institutions in contemporary U.S. society. Intersections of race, class, gender, sexual orientation, nationality, and other factors within these institutions will be addressed.
Learning Outcomes

View Course Outcomes

SOCI 2261 Issues in Death and Dying 3 Credits (3)
Major personal and social issues related to the process of dying in our culture.
Learning Outcomes
  1. be able to understand the diversity of the death experience and the various options available in coping with death and bereavement as shown by the student's participation in class discussions and field trips.
  2. better understand death and dying as social phenomena as shown by the student's reaction papers.
  3. have taken an in-depth look at her or his own death with a researched paper. Comprehension will be shown by the student's grade on the paper.

View Course Outcomes

SOCI 2310G Contemporary Social Problems 3 Credits (3)
This course studies the nature, scope, and effects of social problems and their solutions. The course will concentrate on sociological perspectives, theories, and key concepts when investigating problems, such as inequality, poverty, racism, alienation, family life, sexuality, gender, urbanization, work, aging, crime, war and terrorism, environmental degradation, and mass media. This course is designed to build students' sociological understanding of how sociological approaches attempt to clarify various issues confronting contemporary life, as well as how sociologists view solutions to these problems.
View Course Outcomes

Spanish (SPAN)

SPAN 1110 Spanish I 4 Credits (4)
Designed for students with little exposure to Spanish, this course develops basic listening, speaking, reading, and writing skills and basic intercultural competence in interpretive, interpersonal and presentational modes of communication at the Novice Level of proficiency based on ACTFL guidelines. During this course, students perform better and stronger in the Novice-Mid level while some abilities emerge in the Novice High range. This is an introductory course aimed at helping the student to communicate in Spanish in everyday familiar situations via recognition and production of practiced or memorized words, phrases, and simple sentences.
Learning Outcomes

View Course Outcomes

SPAN 1120 Spanish II 4 Credits (4)
Designed for students with some degree of exposure to Spanish in high school and/or at home, this course continues to develop basic listening, speaking, reading, and writing skills and basic intercultural competence in interpretive, interpersonal and presentational modes of communication based at the Novice High Level of proficiency based on ACTFL guidelines, although a few abilities may emerge in the Intermediate Low Level.Students in this course communicate in Spanish in familiar topics using a variety of words, phrases, simple sentences and questions that have been highly practiced and memorized.
Prerequisite(s): C- or better in SPAN 1110
Learning Outcomes

View Course Outcomes

SPAN 1210 Elementary Spanish for Heritage Learners I 3 Credits (3)
This is a beginning-level Spanish course designed for students who have a cultural connection to the Spanish language. Some students have had very little exposure to the language and enter the class to develop beginning-level skills. Other students may have grown up hearing the heritage language int he community and may understand some Spanish and speak at a basic level as a result. The objective is to draw upon the connection to the heritage language as a source of motivation and engagement for our learning communities. At the same time, we build upon the language base that students may already have as a result of their heritage learner experience in order to develop new proficiencies in Spanish and reactive the Spanish that students have learned previously. By the end of this course, students will be able to describe their home, campus surroundings and common activities including cultural traditions. At the same time, students gain cultural competency and develop a critical understanding of their linguistic and cultural background.
Learning Outcomes

View Course Outcomes

SPAN 1220 Spanish for Heritage Learners II 3 Credits (3)
Spanish as a Heritage Language II is a second semester class designed for students who have developed some basic Spanish proficiency from previous classes and/or from community experiences. This course provides students with the opportunity to develop their proficiency in the four language skills (speaking, listening, reading, and writing). Class activities are designed to strengthen oral communication skills (speaking and listening) through a variety of group activities. By the end of the course students will be able to understand and produce narrations of past events in oral and written Spanish. In order to foster a desire to revitalize and maintain the Spanish language in the US context we attempt to raise students' critical awareness of what it means to be part of a specific speech community.
Learning Outcomes

View Course Outcomes

SPAN 2110 Spanish III 3 Credits (3)
This course is based on the integration of Student Learning Outcomes across Interpersonal, Interpretive, and Presentational Modes of Communication at the Intermediate Low Level of proficiency based on ACTFL guidelines. Students accomplish real-world communicative tasks in culturally appropriate ways as they gain familiarity with the target culture(s). This is an intermediate course aimed at helping the student to communicate in Spanish on familiar topics about self, others and everyday life at the same time that they recognize and handle short social interactions in interactions in everyday situations by asking and answering a variety of questions.
Prerequisite(s): A C or better in SPAN 1120
Learning Outcomes

View Course Outcomes

SPAN 2120 Spanish IV 3 Credits (3)
This course is based on the integration of Student Learning Outcomes across Interpersonal, Interpretive, and Presentational Modes of Communication at the Intermediate High Level of proficiency based on ACTFL guidelines. Students accomplish real-world communicative tasks in culturally appropriate ways as they gain familiarity with the target culture(s). This is an intermediate course aimed at helping the student to communicate in Spanish on familiar topics about self, others and everyday life at the same time that they recognize and handle short social interactions in interactions in everyday situations by asking and answering a variety of questions.
Prerequisite(s): C or better in SPAN 2110
Learning Outcomes

View Course Outcomes

SPAN 2210 Spanish for Heritage Learners III 3 Credits (3)
Intermediate Spanish for Heritage Speakers I is a third semester course designed for students who have been raised in a Spanish-speaking environment and speak, or understand, some Spanish as a result of hearing it in the home, and in the community by family, friends, and neighbors. Students in this course will continue to develop their ability to narrate events in the past and will be able to describe hypothetical situations. Students will also develop their ability to express wishes, desires, and necessities. This course will help the student build confidence in their Spanish abilities and expand the language use in the areas of writing, reading, oral production and listening comprehension. In order to foster a desire to revitalize and maintain the Spanish language we attempt to raise students' critical awareness of wider issues facing Spanish speakers in the US context.
View Course Outcomes

Special Education (SPED)

SPED 2120 Introduction to Special Education 3 Credits (3)
For paraprofessional students who will be working with a teacher in a Special Education classroom. This class will provide an overview of characteristics of children with special needs, legal issues, framework of effective instruction and a variety of practical teaching and learning strategies that are relevant to the tasks and academic demands required in inclusive classrooms.
View Course Outcomes

SPED 2130 Culture, Learning and Academic Achievement in a Diverse Society 3 Credits (3)
Development of culturally responsive learning strategies, skills and utilization of support services, to enhance academic achievement.
View Course Outcomes

SPED 2996 Topics in Special Education 1-3 Credits
Offered under various subtitles that indicate the subject matter to be covered. Repeatable: 3 times for a maximum of 9 credits.
View Course Outcomes

Speech & Hearing Science (SPHS)

SPHS 2110 Introduction to Communication Disorders 3 Credits (3)
This introductory course provides an overview of common speech, language, and hearing disorders in children and adults including etiologies, characteristics, prevention, identification, assessment and intervention. The course provides an overview of the field of speech-language pathology and audiology.Repeatable: up to 3 credits.
Learning Outcomes

View Course Outcomes

Surgical Technology (SURG)

SURG 120 Surgical Technology Clinical I 2-4 Credits
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. This course is designed to prepare the student to enter the surgical environment. This course provides an introduction to the operating room, observation of surgical procedures, direct participation in the preoperative (pre-op, intra-op, post-op) preparation of individual cases and professional roles and responsibilities of individual members of the surgical team. Direct supervision is provided by the clinical professional. Students must be admitted into Surgical Technology Program to enroll in this course. (6P)
Prerequisite(s): BIOL 2310, BIOL 2210, BIOL 2225, NURS 150
Corequisite(s): SURG 140, SURG 145
Repeatable: up to 4 credits
Learning Outcomes
1. Demonstrate of and adherence to Standard Precautions.
2. Demonstrate professional conduct and ethical practice in the clinical setting.
3. Demonstrate proper procedure for surgical scrub.
4. Demonstrate proper procedure for gowning and gloving self and others.
5. Identify and Utilize OR furniture and equipment appropriate to individual cases.
6. Demonstrate preoperative case/procedure preparation.
7. Locate basic instruments and assemble specified instrument sets.
8. Demonstrate knowledge and utilization of specialty and accessary equipment.
9. Demonstrate care, handling, and assembly of common equipment. 1
10. Create and maintain sterile field. 1
11. Identify suture materials and stapling devices. 1
12. Demonstrate preparation and handling techniques of suturing materials and stapling devices. 1
13. Demonstrate knowledge of skin preparation. 14Discuss, demonstrate, and apply principles of surgical positioning. 1
14. Identify, describe, and demonstrate the principles of transportation of the surgical patient. 1
15. Define and demonstrate the handling, labeling, and containment of specimens. 1
16. Explain and perform postoperative case, instruments, and room break down and preparation.

View Course Outcomes

SURG 140 Introduction to Surgical Technology 4 Credits (4)
This is an orientation to surgical technology theory, surgical pharmacology and anesthesia, technology sciences and patient care concepts and is designed to prepare the student to enter the surgical environment with entry-level knowledge necessary to understand patient responses to disease, illness, hospitalization, surgical procedures, commonly used pharmacological and anesthetic agents, and legal, moral, and ethical issues that could be encountered in the surgical environment.
Prerequisite(s): Admission to Surgical Technology Program; BIOL 2310, BIOL 2225, & NURS 150
Learning Outcomes

View Course Outcomes

SURG 145 Fundamentals of Perioperative Concepts & Techniques 5 Credits (5)
This is an in-depth coverage of perioperative concepts such as aseptic/sterile principles and practice, infectious processes, wound healing and creation and maintenance of the sterile field. This course is designed to prepare the student to enter the surgical environment with entry-level knowledge of aseptic technique principles and practices, the creation and maintenance of the sterile field including equipment, supplies and instrumentation, and basic case preparation and procedures. An introduction to diseases and disease processes that may be displayed by the surgical patient and the patient's bodily responses to disease are also included. (3+3P)
Prerequisite(s): Admission to Surgical Technology Program, BIOL 2310, BIOL 2210, BIOL 2225, & NURS 150
Repeatable: up to 5 credits
Learning Outcomes
1. Demonstrate principles and practices of aseptic/sterile techniques
2. Identify infectious processes and concepts of wound healing
3. Create a sterile field utilizing basic case preparation
4. Exhibit maintenance of the sterile field during procedures

View Course Outcomes

SURG 150 Surgical Procedures I 5 Credits (5)
This course is an introduction to surgical procedures and its related pathologies. Emphasis on surgical procedures related to general, obstetrics/gynecology, genitourinary, otorhinolaryngology and orthopedic surgical specialties incorporating instruments, equipment. It is designed to prepare the student to function actively in the surgical environment with entry-level knowledge of surgical procedures. This course expands the basic foundation principles and combines the study of common surgical procedures to include anatomy, physiology and pathophysiology. Specific patient care concepts, medications, instrumentation, equipment, supplies and complication related to selected surgical procedures will be discussed. Admission to Surgical Technology Program necessary to enroll in the course. (5+3P)
Prerequisite(s): SURG 140, SURG 145, and SURG 120
Learning Outcomes

View Course Outcomes

SURG 155 Pharmacology for the Surgical Technology 2 Credits (2)
This is an orientation to surgical pharmacology and anesthesia and is designed to prepare the student to enter the surgical environment with knowledge necessary to categorize the classification of drugs, calculate drug dosages and identify the therapeutic use, routes of administration, indications, contraindications and adverse effects of pharmacologic agents used in the perioperative setting. This course is the foundation for the acquisition of program specific competencies as identified by the AST Core Curriculum.
View Course Outcomes

SURG 160 Surgical Procedures II 6 Credits (6)
This is an introduction to surgical procedures and related pathologies. Emphasis on surgical procedures related to thoracic, peripheral vascular, plastic/reconstructive, ophthalmology, cardiac and neurological surgical specialties incorporating instruments. The course is designed to prepare the student to continue to function actively in the surgical environment with entry-level knowledge of more complex surgical procedures. This course expands the basic foundation principles and combines the study of complex surgical procedures to include anatomy, physiology, and pathophysiology. Specific patient care concepts, medications, instrumentation, equipment, supplies, and complications related to specific surgical procedures will be discussed. Realities of clinical practice and concepts of death and dying will also be discussed. Admission to Surgical Technology Program necessary to enroll in the course.
Prerequisite(s): SURG 150, SURG 260
Learning Outcomes

View Course Outcomes

SURG 230 Professional Readiness 2 Credits (2)
This course transitions the student into professional readiness for employment, professional readiness for attaining certification and professional readiness for maintaining certification status. Admission to Surgical Technology Program necessary to enroll in the course.
Prerequisite(s): SURG 140, SURG 145, SURG 120, SURG 150, SURG 260
Corequisite(s): SURG 160, SURG 265
View Course Outcomes

SURG 260 Surgical Technology Clinical II 4 Credits (4)
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This course is designed to provide the student the opportunity to functional actively in the role as a surgical technologist and health care team member in a clinical setting under the direct supervision of faculty and health care staff. Applications of basic principles and practices combined with a supervised clinical experience participating in common surgical procedures is the focus. Admission to Surgical Technology Program is necessary to enroll in the course. (12P)
Prerequisite(s): SURG 120, SURG 140, & SURG 145
View Course Outcomes

SURG 265 Surgical Technology Clinical III 4 Credits (4)
This is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. This course is designed to provide the student the opportunity to function actively in the role of a surgical technologist and health care team member in a clinical setting under the direct supervision of faculty and health care staff. Refinement and application of basic principles and practices combined with entry-level employment competency expectations is the focus. Preparation for the National Certification Examination for Surgical Technologists is also included. Admission to Surgical Technology Program necessary to enroll in the course. (9P)
Prerequisite(s): SURG 260
View Course Outcomes

Surveying (SUR)

SUR 143 Civil/Survey Drafting I 3 Credits (3)
Introduction to drafting in the field of Civil Engineering. Drawings, projects, and terminologies related to topographic mapping, contour drawings, plan, and profiles as street/highway layout. (2+2P)
Prerequisite(s): A grade of C- or better in E T 109 or DRFT 109
View Course Outcomes

SUR 222 Introduction to Geomatics 3 Credits (3)
Theory and practice of geomatics as applied to plane surveying in the areas of linear measurements, angle measurements, area determination, differential and trigonometric leveling, and topographic mapping. (2+3P)
Prerequisite(s): A grade of C- or better in MATH 1250G or higher
View Course Outcomes

SUR 285 Precise Digital Mapping 3 Credits (3)
Photogrammetric Mapping Principles, digital sensor including optical cameras, terrestrial, surveying control, IMU & GPS integration, stereo photography, analytical triangulation, orthorectification, precision and accuracy of measurement systems, sUAS (Small Unmanned Aerial Vehicles) applications to geospatial data collection and practical applications project fight/pre planning, sensor platform, FAA regulations and restrictions, introduction to laser scanning systems.
View Course Outcomes

SUR 292 Legal Principles and Boundary Law I 3 Credits (3)
Fundamentals of real property law; principles of land description; survey evidence and procedure in boundary determination, order of importance of conflicting elements; and liability, ethical and professional principles in boundary surveying; contemporary issues in boundary determination.
View Course Outcomes

Technical Studies (OETS)

OETS 100 Industrial/Construction Safety 2 Credits (2)
Covers safety issues such as PPE, BBP, ladder safety, RTK, HazCom, MSDS and information about safety organizations such as OSHA, NIOSH, NFPA, National Safety Council.
Learning Outcomes
1. Explain the negative effects that the Industry can have on the environment when Safety and Environmental Regulations are not followed.
2. Describe the various types of physical, chemical, biological, ergonomic as well as plant specific hazards associated with the any Industry
3. Apply terms used when describing the various hazards.
4. Define the general types of Engineering Controls, Administrative Controls, Permitting Systems and Personal Protective Equipment used to minimize the exposure to the various hazards.
5. Explain the federal and state regulations which govern the Industrial Industry

View Course Outcomes

OETS 102 Career Readiness Certification Preparation 1 Credit (1)
This course is designed to prepare students to successfully obtain Career Readiness Certifications in all areas and at the appropriate levels for their program of study. S/U Grading (S/U, Audit).
Repeatable: up to 3 credits
View Course Outcomes

OETS 103 Technical Career Skills 4 Credits (4)
This course will be project-based and will encompass writing, presentation, math, reading, and critical thinking skills applied in a technical environment.
View Course Outcomes

OETS 104 Basic Mathematics for Technicians 4 Credits (4)
Fundamental mathematical concepts and computations including measurement, ratio and proportions, and pre-algebra as it relates to technical programs.
Prerequisite(s): appropriate placement test score
View Course Outcomes

OETS 117 Writing for Technicians 3 Credits (3)
Instruction in the skills for developing clear, written descriptions of processes and procedures used by technicians in various fields. Emphasis on correct grammar, logical organization, and receiving audience. Focuses on clarity, structure, and concise writing methods. Does not substitute for ENGL 111G.
View Course Outcomes

OETS 118 Mathematics for Technicians 3 Credits (3)
Analysis and problem solving of technical problems using measuring instruments and techniques of arithmetic, algebra, geometry, and trigonometry. (2+2P)
Prerequisite(s): Grade of C- or better in OETS 104 or CCDM 103 N, or appropriate placement test score
Repeatable: up to 3 credits
Learning Outcomes
1. Perform the basic arithmetic operations and be able to solve word problems.
2. Recognize and understand the techniques of measurement in the English and Metric systems.
3. State the laws of exponents and perform basic operations involving powers.
4. Understand and apply concepts of algebra and their use in formulas related to occupational areas of study.
5. Identify and apply geometric terms with particular emphasis on being able to find areas of polygons and circles and volumes of solids.
6. Solve problems involving right triangles using trigonometry.

View Course Outcomes

OETS 120 Business Fundamentals 3 Credits (3)
Instruction in the skills for basic business concepts used by technicians in various fields. Emphasis placed on basic business concepts; business ownership including marketing, management, accounting, and customer services; interpersonal communication; and basic computer concepts including word processing, spreadsheets, and presentation software.
View Course Outcomes

OETS 255 Special Topics Technical Studies 6 Credits (6)
Topics to be announced in the Schedule of Classes.
View Course Outcomes

Theater (THEA)

THEA 1110G Introduction to Theatre 3 Credits (3)
This course provides an introduction to the study of theatre. Students will examine various components that comprise theatre, such as acting, directing, playwriting, dramaturgy, scenic and costume design, stagecraft, spectatorship, history, theory, and criticism.
View Course Outcomes

THEA 1210G Acting for Non-Majors 3 Credits (3)
This class gives non-majors experience in the depth and craft of the actors art. Students will learn various terms, techniques, and practices of acting and will demonstrate their understanding in class. Through exercises and improvisations, partnered scenes, and group work, students will be better able to appreciate the work of others as they learn techniques of performing. Repeatable: up to 3 credits.
View Course Outcomes

THEA 1221 Beginning Acting 3 Credits (3)
Basic understanding of self-expression through a variety of physical exercises, improvisation, and character study, culminating in scene or monologue work. Restricted to: THTR majors
View Course Outcomes

THEA 1222 Stage Movement 3 Credits (3)
Physical techniques for the actor to develop kinesthetic awareness and skills in characterization, archetypes, and stage combat. Restricted to: THTR majors.
Learning Outcomes

View Course Outcomes

THEA 1223 The Art of Theatre 3 Credits (3)
This course introduces the variety and scope of theatre professions, the value and goals of the theatre major and an analysis of the art form from script to stage. Restricted to: Required for THTR majors.
View Course Outcomes

THEA 1310 Introduction to Costuming 3 Credits (3)
This course introduces students to basic skills generally used in creating costumes for theatre. During the semester students will be introduced to the costume shop, equipment, supplies, and processes. They will learn the process of sewing a garment and running a stage production.
Learning Outcomes
1. Demonstrate basic hand and machine sewing skills. Use basic costume craft tools and techniques.
2. Analyze fabric selection for the stage.
3. Draft and use patterns.
4. Take body measurements for patterning and construct a costume from those measurements.
5. Combine interpersonal communication skills with costume construction skills.
6. Analyze a script for costume design purposes.
7. Build a garment.

View Course Outcomes

THEA 1310L Costume Craft Lab 1 Credit (1)
Class members will assist in construction for productions in a studio environment.
Learning Outcomes
1. Introduction to Costuming.

View Course Outcomes

THEA 1415 Running Crew I 2 Credits (2)
Students learn about backstage and front of house production positions and work on a technical aspect of a production in a rehearsal and performance environment.
Learning Outcomes

View Course Outcomes

THEA 2221 Intermediate Acting: Scene Study and Monologues 3 Credits (3)
Monologues and scene work, using character and script analysis.
Learning Outcomes

View Course Outcomes

THEA 2222 Intermediate Acting for Non-Majors 3 Credits (3)
A continuation of THEA 1210 with an emphasis on monologues, scenes and characterization.
Learning Outcomes
1. Apply fundamental techniques of voice and movement for the stage.
2. Analyze a dramatic text and interpret a character and develop the skills necessary to score a script for character development.
3. Perform specific choices to create and perform goal-driven characters.
4. Demonstrate various physical and mental relaxation techniques.
5. Identify internal and external techniques to increase actor's emotional range.
6. Demonstrate sensory exercises and apply this technique to scene work.
7. Articulate and implement key terminology of modern acting techniques.
8. Develop and articulate a basic personal artistic process.
9. Demonstrate the ability to work cooperatively on a creative/ interpretative project. 1
10. Begin to develop professionalism and development of a critical eye through practice giving and receiving peer feedback, adherence to deadlines, memorization, flexibility and coachability.

View Course Outcomes

THEA 2310 Stagecraft 3 Credits (3)
Student will explore basic skills for scenic designers and techniques of set construction for the stage, including building scenery, rigging, painting and properties.
Learning Outcomes
1. Demonstrate a range of technical skills, which will qualify them to assist in the basic technical production of a play.
2. Demonstrate and apply how to safely and competently use hand tools, power tools, electrical, and electronic stage equipment.
3. Analyze the technical aspects of a play in performance.
4. Read and construct scenery from ground plans, elevations, and drawings.
5. Analyze a script from the perspective of a designer, artistic, and/ or technical director.

View Course Outcomes

THEA 2310L Stagecraft Laboratory 1 Credit (1)
Class members will assist with construction for productions in a studio environment.
Learning Outcomes

View Course Outcomes

THEA 2340 Introduction to Design 3 Credits (3)
Introduction into our visual world via the language of designers, focusing on collaboration, creative thinking and presentation skills. The varied design professions in theatre and the performing arts will be explored. Restricted to: Required of all THTR Majors.
Learning Outcomes
1. Apply design vocabulary and descriptions when speaking about design.
2. Identify design tools and make choices about where to use them.
3. Apply the foundation information in understanding how design tools work.
4. Apply correct terminology in assessing design and script analysis.
5. Read and understand some of the design documents commonly used in the industry.

View Course Outcomes

THEA 2415 Running Crew II 1 Credit (1)
Students learn about backstage and front of house production positions and work on a technical aspect of a product in a rehearsal and performance environment.
Learning Outcomes

View Course Outcomes

THEA 2421 Vocal Production for the Actor 3 Credits (3)
Exploration and development of the actor's vocal instrument, including relaxation, projection, diction and articulation. Restricted to: THTR majors.
Repeatable: up to 3 credits
View Course Outcomes

THEA 2993 Workshop in Theatre 0.5 Credits (0.5)
Required for all freshman and sophomore theatre majors, this course coordinates all processes within Theatre Arts, providing a forum for discussion and feedback. Repeatable: up to 4 credits.
View Course Outcomes

THEA 2996 Topics in Theater 1-3 Credits
Specific subjects to be announced in the Schedule of Classes. Repeatable: for a maximum of 9 credits.
View Course Outcomes

Welding (WELD)

WELD 100 Structural Welding I 6 Credits (6)
Development of basic skills in SMAW, OFC, and OFW in accordance with the AWS entry-level welder program. (3+6P)
View Course Outcomes

WELD 102 Welding Fundamentals 3 Credits (3)
Survey of welding and cutting processes for nonmajors. Classroom instruction and laboratory work with OFC/OFW, SMAW, GMAW, FCAW, and plasma arc cutting. (2+2P)
View Course Outcomes

WELD 105 Introduction to Welding 3 Credits (3)
Welding practices, procedures, and terminology. Welding safety, equipment types, electrode types in usage, joint design and testing procedures.
View Course Outcomes

WELD 110 Blueprint Reading (Welding) 3 Credits (3)
Interpretation of prints related to welding. Emphasis on AWS standard symbols for welding, brazing, and nondestructive examination.
Learning Outcomes
1. Identify, recognize, and differentiate between an orthographic and isometric drawing also line type's structural shapes, pipe, and fittings on a print.
2. Read, identify, and define scales sizes, tolerances, local and general notes, also read material lists and specifications.
3. Read, compile materials and data, and construct using a blueprint. Identify weld size and position from the welding symbols, and produce a rough sketch for construction.

View Course Outcomes

WELD 115 Structural Welding II 6 Credits (6)
Continuation of WELD 100. Emphasis on AWS entry and advanced level welder skills with SMAW, including all-position welding with mild and stainless-steel electrodes. Plasma arc and air-carbon are cutting, metallurgy, heat treatment, and weld defects. (3+6P)
Prerequisite(s): WELD 100
View Course Outcomes

WELD 120 Basic Metallurgy 3 Credits (3)
Properties of ferrous and nonferrous materials. Service conditions and heat treatment of metals related to welding trade. Prerequisites: WELD 100.
View Course Outcomes

WELD 125 Introduction to Pipe Welding 3 Credits (3)
Pipe fit-up and welding techniques for pipe fitting and pipe weld joint using SMAW, GMAW, GTAW, and FCAW, 2G welding of pipe. (2+2P)
Prerequisite(s): WELD 100, WELD 130, and WELD 140
View Course Outcomes

WELD 126 Industrial Pipe Welding 3 Credits (3)
Enhancement of WELD 125. Development of more advanced pipe welding skills.
Prerequisite(s): WELD 110, WELD 130, and WELD 140
Corequisite(s): WELD 125
View Course Outcomes

WELD 130 Introduction to GMAW (MIG) 3 Credits (3)
Development of basic skills with gas metal arc welding (MIG) in accordance with AWS entry-level welder objectives. Wire electrodes, shielding/purge gases, and modes of metal transfer. (2+2P)
View Course Outcomes

WELD 140 Introduction to GTAW (TIG) 3 Credits (3)
Development for basic skills with gas tungsten are welding (TIG) in accordance with AWS entry/advanced welder objectives. Welding mild steel, tungsten electrode preparation, filler wire selection, and equipment set-up. (2+2P)
Learning Outcomes

View Course Outcomes

WELD 150 Pipe Welding II 3 Credits (3)
Continuation of WELD 125; with fillet and groove welded joints in a horizontal fixed and 45-degree fixed positions (5-F, 5-G, 6-F, 6-G). (2+2P)
Prerequisite(s): WELD 125
View Course Outcomes

WELD 151 Industrial Pipe Welding II 3 Credits (3)
Enhancement of WELD 150. Development of more advanced pipe welding skills. Emphasis on industry driven test.
Prerequisite(s): WELD 125 and WELD 126
Corequisite(s): WELD 150
Learning Outcomes
   1. Demonstrate… The use of a welding rod and Tig weld around a 6G pipe.
   2. Explain… Tig and stick machine set-up around a 6G pipe.
   3. Define… More advanced terminology used in the pipe welding profession.

View Course Outcomes

WELD 160 Introduction to SAW and FCAW 3 Credits (3)
Submerged arc and flux-cored arc welding. Demonstrations and practice with machine travel submerged arc welding (SAW), flux-cored arc welding (FCAW-G, FCAW-S) on mild steel plate and pipe. (2+2P)
View Course Outcomes

WELD 170 Welded Fabrication 3 Credits (3)
Development of fabrication skills including basic layout, measuring, and utilization of various welding processes including out-of-position welding. Use of common shop tools. Prerequisites: WELD 100, WELD 110, WELD 130, and OETS 104 or OETS 118. (1+4P)
Learning Outcomes

View Course Outcomes

WELD 180 GTAW II 3 Credits (3)
Continuation of WELD 140. Development of more advanced GTAW skills. Emphasis on pipe welding with mild steel, stainless steel, and aluminum. (2+2P)
Prerequisite(s): WELD 140
Learning Outcomes

View Course Outcomes

WELD 190 Welded Art 3 Credits (3)
Students explore the possibilities of welded art in the form of sculpture, jewelry, furniture and as a framework to support other art media. Offered as an elective for students who wish to create art using welding. (1+4P)
Prerequisite(s): WELD 102
Repeatable: up to 12 credits
View Course Outcomes

WELD 211 Welder Qualification 6 Credits (6)
Laboratory and classroom instruction on AWS and ASME Welder Performance Qualification Tests. All position plate and pipe techniques and tests for SMAW, GMAW, GTAW, FCAW, and SAW. Nondestructive and destructive examination methods. Basics of welding codes. Prerequisites: OETS 104 or OETS 118; and WELD 100, WELD 110, WELD 120, WELD 130, WELD 140, WELD 160 and WELD 180. Restricted to majors. (3+6P)
Learning Outcomes
   1. Demonstrate the use of carbon electrodes in all 4 positions on 3/8" and 1" plate
   2. Explain the testing procedures on 3/8" and 1" plate
   3. Define all testing procedures to include destructive and dye testing

View Course Outcomes

WELD 221 Cooperative Experience I 1 Credit (1)
Supervised cooperative work program. Student is employed in an approved occupation and supervised and rated by the employer and instructor. Student will meet in a weekly class. Graded S/U. Prerequisites: WELD 100. Restricted to majors. (3+6P)
View Course Outcomes

WELD 255 Special Problems in Welding Technology 6 Credits (6)
Individual studies in areas of welding technology.
Repeatable: for a maximum of 12 credits
View Course Outcomes

WELD 295 Special Topics 4 Credits (4)
Topics to be announced in the Schedule of Classes.
Repeatable: for a maximum of 12 credits
View Course Outcomes

Women's Studies (GNDR)

GNDR 2110G Introduction to Women, Gender, and Sexuality Studies 3 Credits (3)
This course introduces students to key concepts, debates, and analytical tools informing Women's, Gender, and Sexuality Studies. As an interdisciplinary field of study, Women's Gender, and Sexuality Studies employs academic perspectives from a range of disciplines and theoretical approaches. It also incorporates lived experience and social location into its object of analysis. Through content will vary according to the expertise and focus of the instructor, this course will develop tools through readings and assignments that critically analyze how gender and sexuality are shaped by different networks of power and social relations and demonstrate how the intersection of race, class, disability, national status, and other categories identity and difference are central to their understanding and deployment. In addition to feminist though, areas of focus might include gender and sexuality in relation to social, cultural, political, creative, economic, or scientific discourse. This class is recommended for those with a general interest in the topic areas as well as those seeking a foundational course for further study.
View Course Outcomes

GNDR 2120G Representing Woman Across Cultures 3 Credits (3)
This course explores fundamental concepts in the interdisciplinary field of Women's Studies and feminist theory, especially as they relate to aspects of identity beyond sex and gender. Students will critically examine concepts of power, privilege, and inequality in conjunction with intersections of gender with race, ethnicity, class, and sexuality. We will read and view texts that allow us to gain familiarity with the roles women occupy in diverse societies, and the social institutions that shape our perceptions of gender, race, and class.
View Course Outcomes

SEARCH COURSES

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