MONTGOMERY COUNTY COMMUNITY COLLEGE

COURSE CATALOG

2026-2027

MONTGOMERY
COUNTY COMMUNITY COLLEGE

mc3.edu

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To complete an online application, go to: **mc3.edu/apply.**

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ABOUT THE COLLEGE

MISSION AND VISION

Montgomery County Community College serves as a key regional partner committed to serving the educational, workforce and cultural needs of our students and communities. The College's mission will transform generations through educational, workforce, and cultural experiences that drive achievement at the College and beyond. The College's vision will serve as a high valued partner at all stages of life to empower social mobility, economic opportunity, and social justice.

Evaluation of Mission Achievement

The College views education as a dynamic process that brings to the community a diverse, constantly changing set of learning opportunities; opportunities that grow, change, transform and multiply as the community and learners confront and react to ever-present change. Thus, to fully meet its mission, the College participates in ongoing self-assessment and review to enhance and improve instructional programs and services to students and the County it serves.

STATEMENT OF VALUES

Montgomery County Community College students, employees, and its Board of Trustees will:

- **F**oster a culture of integrity, transparency, trust, empathy, and accountability.
- **I**nnovate for the goals of and achievements of our students, employees, and communities.
- **R**espect contributions and lived experiences to cultivate belonging and sustainability.
- **E**ducate to advance equitable access and opportunity in pursuit of our vision.

EQUITY STATEMENT

Guided by our values, the College collectively takes action through inquiry, dialogue, policies and practices to promote equity and belonging FOR ALL. The College revised the Equity Statement through an inclusive process that allowed opportunities for all members of the College community to engage in conversation on the statement:

Montgomery County Community College affirms that equity is essential to realize the educational, economic, social benefits of higher education. We are committed to celebrating and supporting the diverse and intersectional identities of our students, employees, trustees, and communities. Guided by our values, we act through inquiry, dialogue, policies, and practices to promote equity and belonging.

Montco For All: Building Our Future Together

The College developed the **2023-2027 Strategic Plan** through a transparent process, in which students, faculty, staff, administrators and community partners were engaged to outline how the College will continue to best serve its students, employees and communities well into the future in coordination with MontCo 2050. The Plan focuses on three strategic pillars: Ensure Student Learning, Enhance Employee Experience, and Expand Community Participation.

A STRONG LEGACY, A SECURE FUTURE

Montgomery County Community College was formally founded by the Montgomery County Board of Commissioners on December 8, 1964. The College continues to be sponsored by Montgomery County.

Montgomery County Community College is approved as an institution of higher education by the Board of Education of the Commonwealth of Pennsylvania. The College is authorized by the Board to award associate's degrees in arts and sciences, as well as appropriate diplomas and certificates. Montgomery County Community College is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, 267-284-5000.

Our operating funding sources are tuition, the Commonwealth of Pennsylvania and Montgomery County. In addition to support from the Commonwealth, County and other organizations, we benefit from the Montgomery County Community College PA Legacy Fund, which raises funds to help the College develop programs, facilities and services.

OUR LOCATIONS

BLUE BELL CAMPUS

340 DeKalb Pike, Blue Bell, PA 19422
215-641-6300

POTTSTOWN CAMPUS

101 College Drive, Pottstown, PA 19464
610-718-1800

MONTCO ONLINE

https://www.mc3.edu/online

ADMISSIONS

BLUE BELL CAMPUS

Montgomery County Community College
340 DeKalb Pike
Blue Bell, PA 19422
admissions@mc3.edu

POTTSTOWN CAMPUS

Montgomery County Community College
101 College Drive
Pottstown, PA 19464
admissions@mc3.edu

ADMISSIONS POLICY

Purpose

The College provides accessible and affordable educational opportunities to all who apply. The Admissions Policy is intended to support the success of applicants as they enroll at the College.

Policy

Admission to Montgomery County Community College is open to the following individuals:

- All high school graduates, General Equivalency/Commonwealth Diploma recipients and transfer applicants from another College or University.
- Any person who is a non-high school graduate and approved for enrollment in the Early Admissions program.
- Any non-high school graduate and non-General Equivalency recipient over the age of 18.

Montgomery County Community College has a strong institutional commitment to diversity and is committed to assuring equal opportunity to all persons as articulated in the EEO and Diversity Policy.

Procedure

The College requires prospective students to submit an application for admission. Certain programs have additional criteria and requirements. Prospective students must reference the College's website for the current admissions procedures and requirements.

Once published on the College website, any subsequent changes to College or program admissions criteria must be presented through the governance process relative to the proposed updates.

APPLICATION PROCESS

The College requires prospective students to submit an application for admission to enroll. All applicants are required to submit a high school transcript or transcript from their most recent educational experience. Before you register for classes at Montco, we need to determine the proper academic level of your courses. To do this, we look at your high school transcripts, prior academic experiences, performance on standardized tests and college assessments.

Applicants who have never graduated from high school and who have not completed the GED may be admitted to the College provided they are over the age of 18 and demonstrate, through assessment, an ability to benefit from postsecondary educational experiences.

Applicants who do not demonstrate the appropriate level of academic preparation necessary for success must enroll in developmental courses as outlined in the College's Placement and Testing Policy.

Montgomery County Community College is committed to assuring equal opportunity to all persons and does not discriminate on the basis of race, color, sex, religion, ancestry, national origin, age, applicable disability, or sexual orientation in its educational programs, activities, admissions, or employment practices as required by Title IX of the Educational Amendment of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, and other applicable statutes. Inquiries concerning Title IX and or 504 compliance should be referred to the Director of Equity and Diversity Initiatives, 340 DeKalb Pike, Blue Bell, PA 19422, (215) 619-7413 V/TTY. Blue Bell Campus students seeking information regarding services for students with disabilities should contact the Director of Services for Students with Disabilities at 340 DeKalb Pike, Blue Bell, PA 19422, (215) 641-6575 V. Pottstown Campus students should contact the Coordinator of Disability Services at 101 College Drive, Pottstown, PA 19464, (610) 718-1853 V/TTY.

COMMONWEALTH SECONDARY SCHOOL DIPLOMA

The Department of Public Instruction of the Commonwealth of Pennsylvania will issue a high school diploma to students who never completed high school upon receipt of an official college transcript showing satisfactory completion of 30 college credits. A high school diploma may not be issued in advance of the student's high school graduation class. Students who pursue this program at the College may be limited to part-time study until the diploma is earned. Please refer to the Pennsylvania Department of Education's website at www.pde.state.pa.us for more information on the Commonwealth diploma. Once the 30 college credits have been completed, the student should request an official transcript from Enrollment Services to be mailed with the official diploma request form and PA State identification to the Pennsylvania Department of Education.

READMISSION BY STUDENTS IN GOOD STANDING

Former students who have taken an enrollment break of 3 or more consecutive years and are in good academic standing must apply for readmission to the College. The catalog in effect at the time of a student's readmission to the College, or any subsequent catalog, will govern the student's academic status and graduation requirements.

ACADEMIC RENEWAL FOR PREVIOUS STUDENTS

Academic Renewal, a one-time-only option, provides eligible students with an opportunity to restart their academic records by resetting their GPA and Cumulative Credits Earned for past academic performance once they demonstrate recent success. To be eligible for Academic Renewal, the student must have:

- never been granted Academic Renewal
- an enrollment break of 3 or more consecutive years with a
- less than 2.0
- completed 15 or more credits after the enrollment break with a GPA of 2.0 or greater
- met with an advisor to review the Academic Renewal Policy including the application process

For more information regarding Academic Renewal, visit https://www.mc3.edu/about-mccc/policies-and-procedures/academic-renewal or visit the Student Success Center and talk with an advisor.

READMISSION FOR STUDENTS PREVIOUSLY DISMISSED FOR DISCIPLINARY REASONS

Former students who have been dismissed from the College for disciplinary reasons must first receive approval from the Dean of Students before being

readmitted. This written approval must be received in Enrollment Services before the College can process the application.

ADMISSIONS PROCEDURE FOR INTERNATIONAL STUDENTS

International students are citizens of another country who are authorized to remain in the United States for a temporary period as non-immigrant students (on an F-1 visa) and who intend to return to their home country after graduation. International students must complete International Student Application (F-1 visa). After completing the application, we will issue international students a Letter of Admissions and the SEVIS Form I-20 Certificate of Eligibility for Nonimmigrant (F1) Status to use when applying for their F-1 visa at a U.S. Consulate in their home country. To apply for admission to Montgomery County Community College and for issuance of the I-20, international students must complete an application and send all documents by the application deadlines. Students transferring from another U.S. institution of higher learning should submit their completed application packets at least three weeks prior to the beginning date of the semester they wish to start. Only international transfer students are eligible to apply for entrance into the summer sessions. Students applying for a Change of Non-immigrant Status must submit the International Student Application and all required documents before receiving an I-20.

To apply or learn more about international admissions, international students should contact the Office of International Services at **international@mc3.edu** or visit **http://mc3.edu/international**.

ADMISSIONS PROCEDURE FOR PROGRAMS WITH SPECIAL ADMISSIONS REQUIREMENTS

Admission is selective for the Dental Hygiene, Medical Laboratory Technician, Nursing, Radiography, Surgical Technology, Physical Therapist Assistant, and Police Academy Act 120 training programs. Each program has specific admissions requirements and may have prerequisite coursework that must be completed before students are eligible to be admitted into the respective program. College coursework can begin before formal acceptance into each respective program. For the admissions prerequisite requirements for these programs, refer to the appropriate prerequisite curriculum listing in this catalog. Due to the competitive nature of these programs and class-size limitations, the College does not guarantee immediate acceptance into these programs even if you meet the admissions prerequisites. For certain programs, students may have to wait until there is space available in the class.

EARLY ADMISSIONS

Applicants for Early Admissions, including Dual Enrollment, must follow the same procedures as applicants seeking regular admission and provide the required approvals from their high school or diploma-granting institution and parent/guardian.
Dual Enrollment opportunities are available to students currently enrolled in grades 9-12 who are at least 13 years of age and can provide a current high school transcript. No exceptions will be made for students under the age of 13.

Students under the age of 15 at the time of application must contact the Dual Enrollment Office for additional admissions review and next steps. Admission for students under the age of 15 will be considered on a case-by-case basis and may require additional documentation and a meeting with the student and parent/guardian to determine academic readiness and course suitability.

DUAL ENROLLMENT PROGRAM

Dual Enrollment at Montco allows high school students to get a head start on their college education while completing High School. Eligible students can earn college credits that may also fulfill certain high school graduation requirements with approval from their high school.

To be eligible, students must be in good academic standing with a 3.0 or higher and meet the pre-requisites for the classes they wish to take. Students under 15 years of age require additional review of academic readiness. Students can take college classes on campus, online or at their high school and earn undergraduate credits from Montgomery County Community College.

Dual Enrollment students can continue to degree completion at Montco or transfer their Montco credits to a 4-year college or university. Students interested in transferring credit should contact the intended college's admissions office to ensure that your credits transfer completely.

For information and application instructions visit mc3.edu/DE. You may also reach our dual enrollment team by email at **DualEnrollment@MC3.edu** or call 610-718-1931.

Gateway to College

Program Manager
Michelle Kulla
215-641-6386
mkulla@mc3.edu

The Gateway to College program supports students who are at risk of not completing or have disengaged from their high school education. Through the program, students complete their high school diploma requirements at community and technical colleges while simultaneously earning college credits toward an associate's degree or certificate.

Program Benefits:

- scholarship program that pays for student tuition and books
- earn your high school diploma
- attend class in a supportive and educational environment
- earn college credit toward an associate's degree or certificate while taking classes toward high school diploma

Program Requirements:

- students 16-21 who have dropped out of high school or are behind in credits for their age/grade
- possess reading skills at an eighth-grade level or higher
- referral and sponsorship by a partnering school district or community partner
- have the desire and determination to learn and to earn a high school diploma and a college degree (by age 21 and willing to commit to two or more year)

For more information about our Gateway to College program, please visit **https://www.mc3.edu/choosing-montco/resources-for-students/student-success-center/outreach-programs/gateway-to-college-program or call one of our offices listed above.**

TRANSFER STUDENT ADMISSIONS

The College applies the following guidelines in order to award academic credit for prior learning:

1. The consideration of transfer credit will be determined by course equivalencies, including expected learning outcomes, with those of the College's curricula and standards.
2. Generally, credit will only be transferred from regionally accredited postsecondary institutions; however, the College recognizes valid educational experiences worthy of consideration outside of regionally accredited schools and has procedures to accommodate these based upon approval from the academic coordinator/ program director and documentation of course equivalencies, including expected learning outcomes.
3. In addition, the College awards academic credit and course placement to students based on previous academic, employment, military and/or other learning experiences not earned in a traditional course. Credit is awarded for nationally recognized examinations [including Advanced Placement (AP), Cambridge International Examinations (CI), College Level Examination Program (CLEP), International Baccalaureate ® Diploma Programme (IB) and DANTES Credit-by-Exam Program (DSST)], certifications or by portfolio evaluation of prior learning, based on course equivalencies, including expected learning outcomes.
4. Presented credits that meet grade and curricular requirements will be accepted at the College, up to 75 percent of the credits required for an associate's degree or certificate program. Transfer credit for specific majors are accepted to the extent that such acceptance would not be counter to discipline-specific accrediting agencies.
5. Developmental coursework is not accepted for transfer credit but will be transcribed for prerequisite purposes.
6. Courses with a grade value of 2.0 (C) or higher will be considered for transfer. Courses with a grade value of “pass” or “satisfactory” will be accepted as transfer credits when the transcript states that a “pass” or “satisfactory” is equivalent to a C or above. Transfer courses will be awarded credit with no grade value (quality points) assigned.
7. In general, courses will be considered for transferability regardless of their age; however, some programs may restrict the age of courses used for program admission, prerequisite purposes and/or program completion.

For up-to-date information on opportunities for advanced standing and prior learning credits, visit the College website at http://mc3.edu/adm-fin-aid/prior-learning-assessment. Here are some of the more common opportunities to receive advanced standing or credits for prior learning.

Transfer of Credits

1. Only official transcripts or score reports sent directly to Enrollment Services from the issuing institutions/organizations or delivered in a signed, sealed envelope will be reviewed. Electronic and/or unsealed documents sent directly from the student are not considered official documents. Official documents for credits earned prior to admission should be submitted no later than the end of the first semester of attendance to meet subsequent course prerequisites and provide for accurate academic planning for degree completion. External courses and exams completed while currently in attendance should be submitted as soon as possible.
2. Students who have credits from foreign educational institutions must have their transcript translated and reviewed by a NACES-accredited credential evaluation service. Military personnel are eligible to have their military experience and training evaluated for transfer credit by submitting an approved form (for example, a DD Form 214) and military transcript. Credit may be awarded for military training that has been evaluated by the American Council on Education and assigned a recommended credit value when the training is directly related to the student's program of study.
3. The MCCC transcript will reflect only the total number of credits equated; awarded individual course equivalencies will not appear.
4. The College operates under the semester system. If a student seeks transfer credit for an institution operating on the “quarter” system, credits may be transferred by multiplying the quarter credit hours by two thirds.
    - 9 quarter hours = 6 semester credits
    - 6 quarter hours = 4 semester credits
    - 4 quarter hours = 2.67 semester credits
    - 3 quarter hours = 2 semester credits
    - When appropriate, quarter hours courses may be added together in order to award transfer credits.

AP Exams

Applicants from secondary schools offering college-level courses, as well as those who have gained educational experience from other sources, may take the appropriate Advanced Placement Examination from the College Board.

Students should request that the score, and the essay portion, of their examination be sent to Enrollment Services. AP exams with scores of three or higher for equivalent courses are accepted to meet degree requirements. See the College's website, mc3.edu, for the most up-to-date listing of AP credits awarded and more information.

CI Exams

Applicants from secondary schools offering Cambridge International Examinations may receive credits for successfully completed exams.

Several AS-Level and A-Level subject exams are accepted for transfer credit based on grades from A-E for A-Level exams, and grades a - e for AS-Level exams. Students should have their official Cambridge International reports sent to Enrollment Services. See the College’s website, mc3.edu, for the most up-to-date listing of CI credits awarded.

CLEP Exams

Students may receive credits if they have successfully completed the CLEP (College Level Examination Program) sponsored by the College Entrance Examination Board (CEEB).
CLEP exams with scores of 50 or higher for equivalent courses are accepted to meet degree requirements. Montgomery County Community College is an official CLEP testing center. Please visit https://www.mc3.edu/admissions/applying-to-mccc/testing-and-assessment/testing-services/clep to find information regarding testing dates and registration, and to find the most up-to-date listing of CLEP credits awarded.

IB Exams

Applicants from secondary schools offering the International Baccalaureate ® (IB) Diploma Programme (DP) may receive credits for successfully completed exams.

Higher level (HL) subject area exams (with minimum scores ranging from 3-6) for equivalent courses are accepted to meet degree requirements. One standard level (SL) exam – History – is also accepted. Student should have their official IB transcript sent to Enrollment Services. See the College’s website, mc3.edu, for the most up-to-date listing of IB credits awarded.

DSST Exams

Military personnel and civilians who have acquired knowledge outside of a traditional classroom may receive credits for successfully completed DSST exams (formerly the DANTES Subject Standardized Tests).

DSST exams with scores of 400 or higher for equivalent courses are accepted to meet degree requirements. Students should have an official score report sent to Enrollment Services. Montgomery County Community College is an official DSST testing center. Please visit https://www.mc3.edu/admissions/applying-to-mccc/testing-and-assessment/testing-services to find information about taking an exam, and to find the most up-to-date listing of DSST credits awarded.

National Evaluations

American Council on Education (ACE) ACE assesses non-collegiate instructional programs to provide credit recommendations. If you participated in a course through an organization that was evaluated by ACE, you can request a copy of your transcript from that organization. If those credit recommendations are equivalent to a course(s) in your MCCC program, you may be eligible for credit(s).

Military Military personnel are eligible to have their military experience and training evaluated for transfer credit by submitting a DD 214 and military transcript. Credit may be awarded for military training that has been evaluated by the American Council on Education and assigned a recommended credit value when the training is directly related to the student's program of study.

Students Occupationally and Academically Ready (SOAR) SOAR prepares students for college and careers in high priority occupations. Students who have participated in an approved SOAR program through their high school's Career and Technical Education Program may receive credit toward their certificate or degree. Visit CollegeTransfer.net to see how your high school credits may be accepted by Montgomery County Community College.

Prior Learning

The College may provide credit for prior learning that does not come from an academic setting or by transfer of credit from another institution. Students must be enrolled as degree-seeking students in the College in order to qualify for Prior Learning credit. Students may then elect to earn credit for specific courses by submission of a comprehensive portfolio that demonstrates that the student has met the learning outcomes for the course or by taking a challenge examination developed and administered by department faculty. There is a fee for the review of materials and for the awarding of credits. Additional information on Prior Learning transfer credit is available on the College's website.

Industry Certifications

The College recognizes various organizations that award professional certification, licenses and training in specific industry areas and grants credit based upon discipline faculty agreement on course equivalencies. Certifications and licenses must be current to be considered for credit. Students are required to submit a copy of their certification or license to the Records and Registration Office with their request for credit. A list of organizations for which credit is awarded is available on the College's website.

Reverse Transfer

Students who have transferred from Montgomery County Community College without earning an associate's degree or certificate may complete program requirements by transferring back courses that have been earned at other institutions and are approved as equivalent to the degree requirements of a program of study at the College, in accordance with the transfer of credit policy.

Appeal Procedures

Academic transcripts are evaluated based upon the procedures established in the Transfer of Credit Policy and through the guidance provided by the academic disciplines. When transcripts are received for which there appears to be no Montgomery County Community College equivalent, or for which no equivalency can be established based upon the course name and course description, the academic discipline may be called upon to make a determination.
It is possible that errors in the articulation of coursework or prior learning can occur. In the event a student believes that this has occurred, the appeal procedure is as follows:

1. The student should first contact the Office of Records and Registration to discuss the evaluation results with a transcript evaluator and provide any additional documentation needed to assist with the review (for example an updated transcript or college catalog, syllabus or other documentation from the sending institution).
2. If the issue is not resolved, the student may request further review from the Director of Records and Registration/Registrar. After conferring with the student, the Director will present the student's claim along with any additional documentation to the Vice President for Academic and Student Affairs and Provost, in consultation with the academic dean, and academic coordinator/program director, for consideration and will communicate the decision to the student in writing, within 15 working days during the academic fall and spring semesters. The decision of the provost is final.
3. Appeals to the Director of Records and Registration/ Registrar under item II above must be submitted no later than 90 days after the completion of the initial evaluation.

SHARED PROGRAMS

Through shared program arrangements, students can complete programs of study that are not offered by Montgomery County Community College but are available at Bucks County Community College, Community College of Philadelphia, Delaware County Community College and Lehigh Carbon Community College. Students who enroll for these majors at the peer community colleges must be authorized at both Montgomery County Community College and the host college to be eligible for program enrollment. The host college's sponsored tuition rate applies.

HOST COLLEGE	MAJOR
Bucks County Community College	Dance (AA)Fine Woodworking (AFA) Furniture and Cabinet Making (Cert)Health Coach (Cert) Historic Preservation (Cert) Paralegal (AAS and Cert) Neuroscience (AS) Meeting, Convention and Event Planning (AA and Cert)

HOST COLLEGE	MAJOR
Community College of Philadelphia	Automotive Technology (AAS) Chemical Technology (AAS) American Sign Language/English Interpreting (AAS)
Delaware County Community College	Advanced Technology (AAS) Paralegal Studies (AAS)
Lehigh Carbon Community College	Aviation - Professional Pilot (AAS) Veterinary Technician (AAS)

ACADEMIC TERMS AND FLEXIBLE LEARNING OPTIONS

COURSE DELIVERY

The College offers a variety of academic semesters and sessions. The regular fall, spring and summer semesters are approximately fourteen (14) weeks in length with one additional week for final examinations in fall and spring only.

CONTINUOUS PROGRAMS OF STUDY

Continuous Programs of Study consist of courses offered 12-months out of the year to complete an associate's degree in about 16 months.

ACCELERATED DELIVERY

Accelerated Delivery options are also available. Students can complete a variety of select courses in as little as one week. Courses are also available in 2-, 3.5-, 6-, 7-, 10-, and 15-week options. Accelerated degree programs are available in Liberal Studies. For more information about flexible learning options, visit the academic calendar at http://mc3.edu/academics/academic-calendar

MONTCO ONLINE

Montco online offers courses and programs in a variety of technological platforms including online, hybrid (blended online and classroom) and videoconferencing. Courses are taught in traditional semesters and accelerated sessions to students who are motivated and independent learners. Currently, the College offers several completely online degrees. Refer to http://www3.mc3.edu/online for course offerings, programs and support services.

TESTING AND PLACEMENT

TESTING SERVICES & ACADEMIC READINESS:

ACADEMIC READINESS

Before new students register for classes at Montco, we need to determine what academic level their courses should be. To do this, we look at high school transcripts, prior academic experiences, performance on standardized tests and college assessments. Students should submit their standardized test scores and transcripts to Montco as early as possible. Once submitted, your documents will be reviewed for placement exemptions and you will be able to work with your academic advisor to register for the appropriate level of coursework.

TESTING CENTER

Located on Blue Bell and Pottstown Campuses, the Testing Centers provide services to Montco students in a reduced distraction testing environment. They offer the following services:

- **Course Testing**

Course Testing is offered to students who have accommodations for documented disabilities or who require make up exams for on ground courses. The Testing Centers are located at both Pottstown and Blue Bell campuses.

- **Biology Placement Test**

Students looking to pursue a degree in the Sciences should note that some biology courses in certain programs have biology and chemistry prerequisites that must be met before a student can register for those courses. Prerequisites can be met either through previous coursework at the high school and college level, or by achieving a score of at least 59 on the biology placement exam and meeting the chemistry prerequisite requirement. Prerequisites and exemptions are valid for five years and a photo ID is required to test. To learn more, contact Testing Services at testing@mc3.edu.

- **ESL Placement Testing**

ESL Placement Testing is offered to students in-person at our Blue Bell and Pottstown campuses. International Students may test in a virtual testing format. For more information, contact Testing Services at **testing@mc3.edu**.

- **TEAS Testing**

Students have the option of taking the TEAS test with a Montco Proctor to prepare for entry into the Nursing or Dental Hygiene Program. Students can register directly with ATI for this virtual test.

To contact the Testing Center, please email: **testing@mc3.edu**.

TUITION AND PAYMENT

TUITION AND FEES

Tuition and fees are established by the Board of Trustees of the College. The College reserves the right to change tuition and fees at any time. Please visit the College's website to review the approved tuition and fees at the time of enrollment at https://www.mc3.edu/paying-for-college/tuition-and-other-costs. The student is responsible for tuition and fees. If the student is receiving financial aid or other scholarship monies, any remaining balance must be paid by the student. In the event of the loss of financial support, the student is responsible for the full amount due to the College. If the student is not planning to attend classes, he or she must drop classes in accordance with the refund policy to avoid charges. Students may not register until their financial obligations to the College are satisfied. Students anticipating difficulty in meeting their future financial obligations should apply for financial aid or for a payment plan through the Office of Enrollment Services.

RESIDENCY REQUIREMENTS

IN-COUNTY TUITION

Effective June 19, 2017, all students who have resided in Montgomery for a period of six months prior to registration will receive the sponsored in-county tuition and fees rate. International Students with an F1 or F2 visa status, or students who reside outside of the county or state, are not eligible for the sponsorship rate. The proof for establishing residency or a change of residence rests with the student. Residency may be established in less than six months if positive action has been taken to establish residency, such as a lease or purchase of a permanent independent residence (student's name must be on the lease or purchase agreement and student

will have moved into residence for purposes other than attending college); Montgomery County voter registration card showing the new address; PA Vehicle Registration Card with the new address or update card from the DMV.

In accordance with PA House Bill 131, "veterans, their spouses and dependent children; military personnel, their spouses and dependent children; and civilian personnel working on a military base, their spouses and dependent children, who are admitted to a community college, [to] be charged the local sponsor rate, provided that the student is a resident of the state on the first day of the semester."

IN-STATE TUITION

To establish residency in the Commonwealth of Pennsylvania, students must demonstrate continuous residence in the Commonwealth for a period of (12) months prior to registration as a student. Minors under the age of 18, or a student whose age is 18 to 23 and is claimed as a dependent on his/her parent's federal income tax return, shall be presumed to have the same domicile as their parents or guardian and must use that address as his/her permanent address. Establishing an address for the purpose of attending college does not establish residency. The proof for establishing residency or a change of residence rests with the student.

PAYMENT PLAN

To assist students in meeting their financial obligation to the College, payment plans are offered for tuition and fees. To qualify for the payment plan for credit courses, you must:

- Be registered for three or more credits in a current semester and have a balance of at least $300.00;
- Accept the payment plan terms and conditions; and
- Pay a $35 non-refundable payment plan set-up fee (unless waived - see below), which is included with the initial payment. The fee will be waived if:
  - You select a six- or five-month payment plan option or
  - You select a four- or three-month payment plan option, and you elect for scheduled monthly payments.

Non-credit courses
This plan allows you to spread payments out over a four-month period. To qualify for the continuing education/non-credit course option, you must:

- Be in an approved program, such as Municipal Police Academy or Massage Therapy;
- Accept the payment plan terms and conditions;
- Pay a $35 non-refundable payment plan set-up fee, which is included with your first payment; and
- Be prepared to pay your initial installment and set-up fee at the time of registration.

TUITION AND FEES REFUND POLICY

Tuition is fully refunded if we cancel a course. Otherwise, all refunds are subject to the College's Tuition Refund Policy.
To withdraw or drop courses, login to Montco Connect to access the online withdraw form. During the drop period, courses can be dropped in Student Planner. To replace a canceled course, select a new class section in Student Planner. For assistance, please visit Enrollment Services at either campus or connect with our SSRC Team virtually at **www.mc3.edu/ssrc-chat**.

The amount of a tuition refund is based on the date the student drops a course. For a full listing of refund amounts, see https://www.mc3.edu/about-mccc/policies-and-procedures/tuition-refund

FINANCIAL AID

Blue Bell Campus

College Hall, 215-641-6566
enrollmentservices@mc3.edu

Pottstown Campus

South Hall 151
enrollmentservices@mc3.edu

Montgomery County Community College's Financial Aid Office offers financial aid funding that is designed to bring educational expenses within the reach of students with varying financial resources. The Financial Aid Office can help students determine their eligibility for financial aid and assist them in applying for and securing a financial aid package that will meet their individual needs. The College administers federal, state and institutional financial assistance, and offers these financial aid programs based on need:

- Federal Pell Grants
- Federal SEOG (Supplemental Educational Opportunity Grant)
- PA State Grants through Pennsylvania Higher Education Assistance Agency (PHEAA)
- Federal Work Study
- Federal Direct Subsidized Loan
- Federal Financial Aid Programs Non-need based:
- Federal PLUS (Parent Loans for Undergraduate Students)
- Federal Direct Unsubsidized Loans

The College also offers over 100 different scholarships, the majority of which are need-based, through the Montgomery County Community College (PA) Legacy Fund. For more information on scholarships, go to **https://www.mc3.edu/paying-for-college/scholarships**.

How to Apply for Financial Aid

To apply for financial aid, students must complete the Free Application for Federal Student Aid (FAFSA), which is online at **https://studentaid.gov/**. Students must reapply each academic year for a financial aid package.

Important Dates and Deadlines

2026-2027 Academic Year:

- October 1, 2025 – FAFSA application available
- May 1, 2026 – File your FAFSA by this date to be eligible for PA State Grant consideration.
- June 15, 2026-Montco Optional Scholarship application available on the student portal.
- June 30, 2027 – Last day to file a 2026-2027 FAFSA

How Financial Aid is Awarded and Paid

The Financial Aid Office awards aid based on financial need. Financial need is the difference between the cost of attendance (COA) and the student aid index (SAI). NOTE: A negative SAI is treated as $0 for financial need purposes to ensure that a student does not receive aid greater than the COA. A student's SAI is determined by a federal formula that uses information provided by the applicant on the Free Application for Federal Student Aid (FAFSA). Generally, the Financial Aid Office offers a student a financial aid package consisting of grants, loans, and scholarships. Gift aid, such as grants and scholarships to students with high financial need are awarded first, followed by self-help aid; such as: work-study and loan funds. Students who plan to attend the entire academic year receive half of their aid for the fall semester and half for the spring semester. The Business Office applies funds to the student's account, deducts any tuition and fees, and within 14 days, refunds any excess funds to the student.

If eligible, summer Pell Grant funding will be awarded in March of each year. If enrolling in at least six credit, summer loan funding may be requested in writing by completing the Loan Adjustment Form at **https://www.mc3.edu/paying-for-college/financial-aid/financial-aid-forms**. Financially eligible students may participate in the Act 101 Program, a state-funded program that offers one-on-one tutoring and counseling services, study skills workshops and individual guidance to help ensure that the students succeed in all courses and achieve their academic goals. Students are encouraged to take advantage of these resources to support their academic progress. Satisfactory academic progress is required to maintain eligibility for financial aid.

Financial Aid PoliciesTo be eligible for financial aid programs, the student must meet the following criteria:

- be a U.S. citizen or an eligible non-citizen;
- have a high school diploma or GED;
- have a valid Social Security number (with the exception of students from the Republic of the Marshall Islands, Federated States of Micronesia, or the Republic of Palau);
- be enrolled or accepted for enrollment as a regular student in an eligible degree or certificate program;
- maintain satisfactory academic progress;
- not be in default on a federal student loan;
- not owe money on a federal student grant

Students:

Students must attend the classes for which they are registered or they will not be eligible for the amount of aid being awarded.

Students who completely withdraw, or cease attending classes, may have to return a portion of their unearned federal financial aid and may owe: tuition, fees and a repayment of federal funds. Students earn their financial aid based on the percentage of the term that they have completed. Federal funds must be repaid in the following order: Federal Direct Unsubsidized Loan, Federal Direct Subsidized Loan, Federal PLUS Loans, Federal Pell Grant, and Federal SEOG funds. More detailed information can be found at **https://www.mc3.edu/paying-for-college/financial-aid/policies-and-resources/return-of-funds.**

Students cannot receive financial aid for a class they intend to audit. To understand the obligation for loan repayment, students applying for a Federal Direct Loan must complete entrance counseling and a Master Promissory Note (MPN) at studentaid.gov.

Students with special or unusual circumstances such as death, disability, loss of income, homelessness etc. may submit a written request with supporting documentation to the Financial Aid Office for special consideration of the status of their financial aid. The forms are available at **https://www.mc3.edu/paying-for-college/financial-aid/policies-and-resources/special-and-unusual-circumstances.**

Students are eligible to receive Federal Pell Grant funds for the equivalent of six full-time years or 12 full-time semesters.

PA State Grant recipients must comply with PHEAA's Academic Progress Policy and meet PHEAA's eligibility requirements.

Student Financial Aid Satisfactory Academic Progress Policy (SAP)

To be eligible for Federal Student Aid funds, the Federal Department of Education requires students make satisfactory academic progress while taking courses toward a degree or certificate program. The College must also have a reasonable policy for monitoring academic progress, which applies to all terms of enrollment. Academic progress is measured by cumulative grade point average, percentage of credits successfully completed, and the time it takes to complete your program. Academic progress is checked at the end of each semester (fall, spring, and summer). The Financial Aid SAP policy can be found at **https://www.mc3.edu/paying-for-college/financial-aid/policies-and-resources/satisfactory-academic-progress.**

NOTE: This policy does not include PA State Grant academic progress requirements for maintaining PA State Grant funding from PHEAA.

FINANCIAL AID PROGRAMS

Grants	Amount	Who is Eligible?
Federal Pell Grant	Up to $7,395 depending on student aid index (SAI) and enrollment credits	Federal Pell Grants are awarded only to undergraduate students who meet federal financial aid eligibility criteria, display exceptional financial need as determined by FAFSA, and have not earned a bachelor's, graduate, nor profressional degree.
Federal Supplemental Educational Opportunity Grant (SEOG)	$250/semester	Pell eligible students with an SAI between -1,500-0 and enrolled at least half-time
		Enrolled at least half-time
Federal Work Study	Hourly wage dependent upon position (max 25/ hrs per week	Must have financial need as determined by the FAFSA, be enrolled at least half-time in an eligible degree or certificate program, and meet federal financial aid eligibility criteria.
PA State Grant administered by PHEAA	Dependent on approved PA State budget; as well as, student's SAI (Student aid index), cost of attendance, and enrollment level	Eligibility criteria available at **https://www.pheaa.org/grants/state-grant-program/prepare.shtml**
Other PA State Programs administered by PHEAA	Varies by program	Visit **https://www.pheaa.org/** for more information.

Loans	Amount	Who is Eligible?
William D. Ford Federal Direct Loans	$500-$10,500	Citizen/permanent resident - enrolled at least half-time.
Federal Parent PLUS Loan	Up to cost of education	Same

Scholarships	Amount	Who is Eligible?
Variety offered through the Montgomery County Community College (PA) Legacy Fund	Varies	Varies

To apply for financial aid, students must file the FAFSA. Students must reapply for financial aid every academic year.

Progress Standards

To be eligible for Federal Student Aid funds, the Department of Education requires that students make satisfactory academic progress while taking courses toward a degree or certificate program, and college must have a reasonable policy for monitoring academic progress. This policy applies to all terms of enrollment. Academic progress is measured by cumulative grade point average, percentage of credits successfully completed, and the time it takes to complete your program. Academic progress is checked at the end of each semester (Fall, Spring, and Summer). NOTE: This policy does not include PA State Grant academic progress requirements for maintaining PA State Grant funding.

Completion Rate (2/3 Rule): Students must complete at least 66.67% of all credits attempted, which is calculated by dividing cumulative credits earned by cumulative credits attempted. Incomplete, Withdrawn, and Failing grades count as attempted, but not as completed/earned credits. Transfer credits count as attempted and earned credits.

Maximum hours (150% Rule): Taximum timeframe for students to complete program requirements is 150% of the published program length. For example, if the student is enrolled in a 60- credit program, the student may only receive financial aid for up to 90 credits in that program. We count all credits attempted and all transfer credits that are applicable to the program.

Developmental Courses/English as a Second Language Courses: Developmental and ESL courses are evaluated in your progress calculation, including completion rate, maximum hours and cumulative grade point average. You may receive federal financial aid for a maximum of 30 semester hours of developmental coursework. There is no limit on ESL courses.

Cumulative GPA Minimum Requirements (GPA Rule): Students must earn at least the minimum cumulative grade point average as shown in the table below based upon the number of credits attempted.

Cumulative Credits Attempted	Minimum Acceptable Progress Cumulative GPA
1-23	1.51
24-35	1.75
36-47	1.83
48-59	2.00
60+	2.00

Withdrawals, Incompletes, Audits and Repeat Courses: Withdrawals and Incompletes do not count as a passing grade. These grades are counted in attempted credits. Once an Incomplete grade has been changed to a passing grade, academic progress can be recalculated upon written request. Audited courses do not earn academic credit and are not eligible for financial aid payment. As such, they are not evaluated in the review of the student's satisfactory academic progress. Repeated coursework is also counted as attempted credits, with all grades related to this repeated coursework included in cumulative GPA calculation.

Change of Major and Second Degrees: Once you complete all the requirements for your program, you can no longer receive financial aid unless you enter a new degree program. You may apply for financial aid for the completion of two associate degree programs. All applicable courses in the completed program will count as part of the 150% attempted credits in your second degree program.

Falling Below Academic Progress Standards

If you fall below any of the three (3) academic progress standards, you will be notified by email. You may also check your satisfactory academic progress status at any time through Self-Service, accessible through Montco Connect or at https://selfservice.mc3.edu/

Warning

If you do not meet satisfactory academic progress standards, you will receive a financial aid warning. Once you are in financial aid warning status, you may continue to receive financial aid in the next semester, but will be expected to meet the minimum standards by the end of the next semester. Failure to meet the minimum standards after the warning term will result in financial aid suspension.

Financial Aid Suspension

Your financial aid is suspended when you fail to meet the minimum Satisfactory Academic Progress requirements for one or more the following reasons:

1. You have been assigned a warning status, a probation status, or you are in a monitoring term after your probation, and you fail to meet the requirements of your warning status or academic plan.
2. You have exceeded the maximum time frame limits for your degree.

Financial Aid Satisfactory Academic Progress Appeals

If you have faced extenuating circumstances that may have affected your academic progress, you may appeal the academic progress suspension. Extenuating circumstances include you experiencing a serious illness or accident; the death, accident or serious illness of your immediate family member; or other mitigating circumstances beyond your control. To appeal, you must complete the Financial Aid Academic Progress Appeal Form at https://www.mc3.edu/sap-appeal, provide acceptable supporting documentation and complete all required steps outlined on the form.

On the Academic Progress Appeal Form, you will be required to explain the following:

You must explain the circumstances that kept you from meeting the satisfactory academic progress standards in the past.

- You must explain your plan for corrective action — that is, tell us what changes you have made that will allow you to be successful in the future.
- You must describe your current educational objective and your plan for successfully achieving this goal at Montgomery County Community College. If you are transferring in new academic credit, please explain how the transfer credit relates to your current educational objective at Montgomery County Community College.

Your appeal will not be reviewed unless all required items have been completed and submitted.

Probation

If your appeal is approved, you will be placed on financial aid probation status and your financial aid will be restored. During probationary status, you must follow the academic plan from your Academic Progress Appeal Form and you must successfully complete all registered courses with a grade of C or better. Withdrawals, Incompletes or Audits do not count as a successful completion grade. Failure to follow the plan and successfully complete all registered courses during the semester of appeal will result in loss of federal financial funding.

Regaining Financial Aid Eligibility

If you do not meet satisfactory academic progress requirements and choose to enroll at the College without financial aid assistance, we will check your progress at the end of that term of enrollment. At that time, if you do meet the requirements, we will reinstate your eligibility for financial aid in subsequent semesters.

ACADEMIC RESOURCES, SPECIAL PROGRAMS AND SERVICES

THE COLLEGE LIBRARIES

Blue Bell Campus College Hall, 215-641-6596
Pottstown Campus South Hall, 610-718-1864
To support your coursework, the libraries provide academic books, journals, archival and primary sources, streaming media, and online research databases.The libraries also provide access to government information and support for grant-seekers. You can browse the library collection and borrow circulating items for free using your college ID or other approved identification. Access the article databases, e-books, and online tutorials anytime at our website: www.mc3.edu/library

We are here to help. Make an appointment to meet one-on-one or in small groups with a librarian. Librarians can help with any and all research assignments including choosing a topic, finding articles and other sources to support your topic, and citing those sources. If you see the word "research" in your syllabus that means reach out to the library. Visit the library desk at either campus or email **libraries@mc3.edu** for help making an appointment, help finding things in the library, or general questions.

DEVELOPMENTAL EDUCATION

Student success is a high priority at the College, and the College offers a variety of courses and services to prepare students for college-level work. These developmental courses and instructional interventions, including Supplemental Instruction, subject-area tutoring and refresher courses, work in tandem to prepare students for the challenges of college academics.

TUTORIAL SERVICES

Blue Bell Campus, College Hall, 2nd Floor (within the Library), 215-641-6452, tutoring@mc3.edu

Pottstown Campus, South Hall 159 (within the Library), 610-718-1945, tutoring@mc3.edu

All Montgomery County Community College students are encouraged to use the resources available in Tutorial Services. Tutorial Services offers extensive peer, professional and paraprofessional face-to-face and online academic support to students enrolled in the College's courses. Individual and Open Tutoring Sessions, and a virtual drop off essay service are available to support students with content as well as study skills. This free service is available whenever school is in session. For more information, visit www.mc3.edu/tutoring.

SUPPLEMENTAL INSTRUCTION

Supplemental Instruction (SI) consists of regularly scheduled, voluntary, out-of-class group study sessions driven by students' needs. Sessions are facilitated by trained peer leaders who utilize collaborative activities to ensure peer-to-peer interaction in small groups. SI is implemented in high-risk courses in consultation with academic staff and is supported and evaluated by a trained supervisor. For additional information, please contact **tutoring@mc3.edu**

STUDENT SUCCESS INITIATIVES

Blue Bell Campus
Student Success Center
College Hall, 215-641-6577

Pottstown Campus
Student Success Center
South Hall, 610-718-1906

College can be challenging and we're here to help! At Montgomery County Community College, we are committed to providing an academic environment that fosters student success. Every student deserves a high-quality, affordable and accessible education. The Student Success Initiatives Program strives to address the unique needs and concerns of all students in order to facilitate a successful transition from their high school, post-secondary or non-educational experiences into the college community. This intentional, comprehensive curricular and co-curricular initiative promotes an understanding and appreciation of a college education, and assists students with developing strategies and attitudes that will maximize academic success and prepare students to become life-long learners and responsible citizens and leaders. The College offers a number of programs and initiatives that are designed to help our students fulfill their academic goals.

Weeks of Welcome

Weeks of Welcome is designed to ensure that students transition to the College successfully and learn about the resources available. The College extends its orientation program throughout the first month of the fall and spring semesters; activities include campus-wide celebrations, sporting events, club fairs, resource fairs and other student-oriented events.

Peer Mentoring

The purpose of the Peer Mentoring Program is to increase a student's chance of academic and personal success in their first year of college by connecting them with successful upper level students who will assist them with their journey through college. Mentors help with unanswered questions, provide Canvas and Student Self-Service tutoring, assist in navigating through the College processes and resources and provide campus tours and information. Program Goals:

1. Promote intellectual, social and moral development of students
2. Establish effective connections between upper-level students new students resulting in successful transitions, increased satisfaction and persistence of both groups
3. Improve communication between students and College staff

Early Alert

The purpose of Early Alert is to enhance student success through online communication between faculty, advisors and students when there is concern about the student's academic performance and/or class attendance. Students receiving early alerts are strongly encouraged to follow up with faculty and advisors as well as seek support in our Tutorial Services Center.

ACT 101 SCHOLARS PROGRAM

ACT 101 is part of a state program called the Higher Education Equal Opportunity Act, which encourages students who may be educationally underprepared and financially disadvantaged to attend college. ACT 101 provides free personalized coaching, mentoring, and connection to resources to ensure students reach their educational goals and have a meaningful educational experience. Each ACT 101 student is assigned a specific Success Coach who will meet with them to assess their goals, develop strategies, and provide regular support and guidance as they navigate their college experience. ACT 101 Success Coaches provide support and accountability while also building genuine relationships with students so that they can take ownership of their education and become advocates for themselves.

In order to qualify for the ACT 101 program, students must meet the following requirements:

- Be a resident of Pennsylvania
- Completed the Free Application for Federal Student Aid (FAFSA)
- Independent or family income is below a state-mandated level
- Registered for 6 or more credits in current semester
- Have an academic need or concern

Interested students who want more information about the ACT 101 Program can speak with staff in the Wellness Centers at the Blue Bell (College Hall) or Pottstown (North Hall) campuses; or email act101@mc3.edu.

KEYS (KEYSTONE EDUCATION YIELDS SUCCESS)

Let KEYS open the door to a brighter future for you and your family. You do the work and KEYS will help support your success. Keystone Education Yields Success (KEYS) has been developed by the PA Department of Human Services in response to growing research showing that individuals who earn a certificate or an associate's degree are better able to secure jobs with family-sustaining wages, benefits and opportunities for advancement. Montgomery County Community College KEYS students can enhance their chances of success through the KEYS Program. Our students are securing careers in the medical field, education, technology, business, hospitality and other high-demand occupations.

The KEYS program is designed to support TANF/Cash and SNAP/Food eligible students succeed in community college.

Eligible student may receive the following:

- KEYS Student Facilitators will connect you to relevant career, academic, financial aid and community resources
- Paid or reduced child care
- Paid books and school supplies up to $1,000
- Paid job-related professional fees and uniform costs, funding limited
- Paid Vocational Work Experience (VWE), in relation to your course of study, funding limited
- Paid transportation assistance (SEPTA, mileage, car repair, license, registration, inspection and more)
- Referrals to community service agencies to support academic success and family stability

Interested students can contact the program staff in the Wellness Centers at the Blue Bell (College Hall) or Pottstown (North Hall) campuses; or emailing keysprogram@mc3.edu.

POWER PROGRAM

The Power Program (Partnership on Work Enrichment and Readiness) is a career and educational exploration course for people in mental health and/or substance use recovery. This program is fully subsidized and allows participants to earn three (3) college credits upon completion of the program.

A transportation stipend is available to eliminate any cost to the student. Some of the class topics highlighted in this program include career assessment, resume writing, study skills, time management, professionalism, success skills for college, public speaking, information about college financial aid, disability services and other college resources.

This course is offered to students who have experienced mental health challenges, substance abuse challenges, and traumatic situations with an interest in completing college-level work. Open only to residents of Montgomery County.

Interested students who want more information about the POWER Program can speak with staff in the Wellness Centers at the Blue Bell (College Hall) or Pottstown (North Hall) campuses; or emailing powerprogram@mc3.edu.

NATIONAL HONOR SOCIETY

The College has a chapter of Phi Theta Kappa, the National Honor Society for community colleges. Phi Theta Kappa exists to recognize and encourage scholarship among students, to provide opportunity for development of leadership and service, to promote an intellectual climate for the exchange of ideas and provide stimulation for continuing academic excellence. The College's chapters are Alpha Kappa Zeta at the Blue Bell Campus which was chartered in 1984, and Beta Tau Lambda at Pottstown Campus, which was chartered in 2011. To be eligible for membership, students must:

- Maintain a 3.5 GPA or above
- Have earned a minimum of 12 credits from the College
- Be of good moral character and possess recognized qualities of leadership

Eligible students will receive an invitation to join once they have fulfilled the requirements. Contact the Student Leadership and Involvement Office on the Blue Bell and Pottstown Campuses if you have any questions about joining Phi Theta Kappa.

STUDENT SERVICES

ACADEMIC ADVISING

Blue Bell Campus
Student Success Center, College Hall
advising@mc3.edu

Pottstown Campus
Student Success Center, South Hall
advising@mc3.edu

Professional advisors are available in the Student Success Center on each campus to assist students with their advising needs. Advisors are assigned to students based on their program of study and will assist students in:

- Selecting a program of study that matches their career goals
- Clarifying challenges toward goal achievement and discussing potential solutions
- Identifying degree requirements and verifying progress toward graduation
- Developing an educational plan
- Following appropriate steps to transition to either the workforce or to another college

Advising services are available to all full-time and part-time students. Students are required to schedule an appointment to meet with their assigned advisor during their first semester and students are encouraged to connect with their advisor on a regular basis. Students are ultimately responsible for their course selections, as well as for the fulfillment of degree or certificate requirements.

HEALTH AND WELLNESS SUPPORT

Throughout many phases of your life, you may encounter challenges that can have a negative effect on your emotional and physical health—and the many demands of juggling college classes, work and relationships can take a significant toll if not sufficiently addressed. Our Wellness Centers, located in the North Hall (Pottstown) and College Hall (Blue Bell), are available to support your wellbeing and can guide you to appropriate local community resources for additional counseling services. We encourage you to utilize the many Montco and community resources.

College Resources:
TIMELYCARE – ONLINE THERAPY & TELEHEALTH PROGRAM
The College provides all current students with free online therapy and telehealth services through TimelyCare, which connects students to dedicated, licensed therapists and medical providers from a secure, HIPAA-compliant mobile app and web platform. Access 24/7 on-demand mental health and telehealth support, scheduled therapy, virtual medical visits, and psychiatry, all at no cost; **timelycare.com/montco**.
You can be talking with a provider in as few as 10 minutes! Go to timelycare.com/montco, and select the "Sign In" button. Use your Montco student email address and password to set up your account. If you have questions, please email **wellness@mc3.edu**.

WELLNESS SERVICES
Montco's Wellness Services department is aware that students face many challenges in and out of the classroom. The Wellness Center supports your holistic wellness, including your mental health and non-academic needs.

The Wellness Services team will work with you to find the resources that fit your needs, including community referrals to appropriate local agencies, organizations and community resources.
• Students are encouraged to reach out to Wellness Services directly to seek support.
• Reach out via email at wellness@mc3.edu
• When sending an email - students should include a brief description of situation and include a valid phone number for contact by a member of the team. Emails received after normal business hours or when the College is closed will be responded to as soon as possible.
Wellness Services is not an emergency service. If you are having an emergency or are in crisis, dial 9-1-1 to get immediate assistance at your location.

TRANSFER SERVICES

TRANSFER PARTNERSHIPS

Our graduates are enthusiastically welcomed by four-year colleges and universities, both regionally and nationally. A variety of partnerships and agreements with four-year institutions have made it possible for students to maximize their experience and credits at the College before transferring to complete their bachelor's degree. Through our transfer partnerships, we have dual-admission relationships with over 20 four-year colleges in the area. When you graduate from Montgomery County Community College with an A.A. or A.S., A.F.A., and selected A.A.S. degrees and the required GPA, you are ensured admission to your intended four-year school if it is part of this program. We also design our curriculum tracks to meet the requirements of these schools, thus making it more feasible for your credits to transfer.

The College has formal partnership agreements with the following: Albright College, Alvernia University, Arcadia University, Bloomsburg University, Chestnut Hill College, Cheyney University, Delaware Valley University, DeSales University, Drexel University, East Stroudsburg University, Eastern University, Gwynedd-Mercy University, Kutztown University, LaSalle University, Lehigh University, Neumann University, Peirce College, Penn State Abington, Penn State Berks, Saint Joseph's University, Shippensburg University, Southern New Hampshire University, Strayer University, Temple University, Ursinus College, Villanova University's Bachelor of Interdisciplinary Studies Degree Program, West Chester University, Western Governor's University, Widener University and Wilmington University. We expect to add more partner schools in the future. Additionally, most Partnership Programs include the opportunity for:

- A waiver of the application fee for dual-admissions students at partner institutions
- Admission into a parallel bachelor's degree program with junior status
- Acceptance of the College's A.A. and A.S. core curriculum
- Scholarships/course discounts for Montgomery County Community College graduates with a specific GPA or higher who are included in the Dual Admissions or Letter of Intent program
- Meeting with advisors at partner institutions
- Attending events and meeting faculty and staff at partner institutions
- Attending regularly scheduled Partner Days and Evenings with representatives from partner schools

PROGRAM-TO-PROGRAM TRANSFER AGREEMENTS

The College also has program-to-program transfer agreements or guides with several of our partner schools, as well as with other four-year institutions. These agreements guarantee students who graduate with an associate's degree the ability to transfer all of their credits to the specified four-year institution and the ability to graduate with their bachelor's degree in two full-time years. Students are encouraged to contact their advisor to discuss the program-to-program agreements.

In addition, the College has eleven programs that are TAOC (Transfer Articulation Oversight Committee) compliant. The TAOC was established under section 24 P.S. §20-2004-C of Article XX-C of the Public Institution Code of 1949. The committee reports to the Pennsylvania Department of Education. The programs that have become TAOC-approved include Business Administration, Computer Science, Criminal Justice, Education in the Early Years, Fine Arts, History, Mathematics, Mass Media, Psychology and Theatre. Students who graduate within any of these programs will be assured transfer as juniors into bachelor degree programs in similar fields of study at any of the 14 Pennsylvania State (PASSHE) universities. These include Cheyney University, Commonwealth University - Bloomsburg, Commonwealth University - Lock Haven, Commonwealth University - Mansfield, East Stroudsburg University, Indiana University of Pennsylvania, Kutztown University, Millersville University of Pennsylvania, PennWest California, PennWest Clarion, PennWest Edinboro, Shippensburg University, Slippery Rock University, and West Chester University. Additionally, Carlow University, Lincoln University, and Northern Pennsylvania Regional College have also opted to participate in TAOC offerings. Students may learn more about TAOC offerings by contacting their advisor or by logging onto www.patrac.org.

ASSISTANCE WITH TRANSFER PLANNING

Students planning to transfer to four-year institutions should become familiar with the transfer process during their freshman year. Early in their first year, they should begin gathering information on one or more colleges and carefully plan for transfer. Students who need help may seek assistance from our advisors. Transfer is more difficult in some highly specialized majors, and may require strategic planning. Choosing a four-year institution and a program of study are important for successful transferability.
In addition to the Partnerships and Program-to-Program Agreements that benefit our students, the Student Services has developed Transfer Guides to describe how our courses fit into curricula offered by many area colleges. Transfer of credits should be a smooth process for students who carefully follow the guides and have earned grades of C or higher.
Four-year college representatives visit our campuses to meet with students for Transfer Fairs and Partner days and in the fall and spring.

CAREER & ALUMNI ENGAGEMENT SERVICES

The Office of Career & Alumni Engagement offers a comprehensive career counseling and resource center designed to engage both students and alumni as active participants in their career development. We are committed to aiding all MCCC students and alumni to help develop, evaluate and effectively initiate and perpetuate their career and educational goals; while encouraging alumni to stay connected or reconnect with the College community through alumni focused networking programs and events.

Career-related Services Include:

- Individual career coaching
- Personal and professional development
- Employment & internship opportunities
- Career-related seminars & workshops
- Career fairs and networking events
- Career Closet

Pottstown Campus
North Hall, Room 110

Blue Bell Campus

Email: **careerservices@mc3.edu** or **Alumni@mc3.edu**

DISABILITY SERVICES

Blue and Pottstown Campuses

Disability Services

215-641-6575, Disabilities@mc3.edu

Montgomery County Community College affirms its commitment to welcoming eligible students with disabilities and adheres to the principles of nondiscrimination and reasonable accommodation as mandated by Section 504 of the Rehabilitation Act of 1973 (504) and the Americans with Disabilities Act. The College's policy and procedures are designed to ensure that students with disabilities have equal access to#all educational programs, services, and activities. The College also provides established processes for filing grievances and reporting any concerns or violations related to these rights.

Students#are responsible for#identifying#themselves to the office of Disability Services when requesting accommodations. Eligibility for accommodations is determined on an individual, case-by-case basis. While students may self-identify#at#any#time, they are encouraged to do so prior to the start of their first semester to ensure that approved accommodations are in place at the beginning of the term.

First-Time Students Registering for Disability Services need to do the following:

1.) Complete the Disability Intake Form located in Starfish under Student Surveys.

2.) Upload your documents (IEP, 504, evaluation, doctors' notes, etc.) to a secured site **https://sft.mc3.edu/filedrop/disabilities** . You will need to provide recent and relevant documentation from a qualified professional to support the need for services. Students are responsible for providing documentation at their own expense to be considered for accomodations.

3.) After you complete the survey and upload your documents, you will then schedule a meeting with Disability Services on your Starfish Calendar.

Our office must receive the Disability Services Intake Survey and documentation **before** your meeting. At the meeting, we will discuss your documents and determine what reasonable accomodations will be needed.

For more information about services, eligiblity and documentation requirements, or complete policies and procedures please visit the College's website or contact Disability Services.

Students Already Registered with Disability Services and want to Renew their Letter of Accomodation

Students who are seeking to renew and/or update their Letter of Accomodation need to go onto Starfish under Student Surveys and complete the Renewing Letter of Accomodation every semester they are scheduled in classes. Please complete this survey weeks **before** the semester starts to have your Letter of Accomodation sent to instructors prior to the start of classes.

VETERANS RESOURCE CENTER

Blue Bell Campus
Veterans Resource Center
215-461-1177
veterans@mc3.edu

Pottstown Campus
Veterans Resource Office
610-718-1839
veterans@mc3.edu

https://www.mc3.edu/vrc

We value your military service. The Veterans Resource Center and its staff is here to support all Veterans, Service Members, and Veterans' dependents/spouses. We work with the campus and community to provide a range of workshops, presentations and other outreach events to support your academic and social success here at Montgomery County Community College.

VA Educational GI Bill® benefits and Vocational Rehabilitation and Employment Assistance

Veterans, Active Duty/Reserve/National Guard Service Members, and eligible dependents of Veterans may be eligible for educational benefits from the Department of Veterans Affairs (VA). If you have eligibility questions, call the VA Educational Hotline for Students at 1-888-442-4551. If you are using VA educational benefits for the first time or are transferring to Montgomery County Community College, you must apply online at https://www.benefits.va.gov/gibill/apply.asp for your VA Educational Benefits Certificate of Eligibility (COE).

You must have your COE and DD-214 (Chapter 35 and 33 Transfer of Entitlement do not need to provide a DD-214) on file prior to registering for classes at Montgomery County Community College if you want your courses certified for your respective GI Bill® VA educational benefits. The VA will only pay for the courses required to the completion of the approved degree or certificate program of education. VA will not pay for audited courses. Courses that are successfully completed may not be certified again for VA educational benefits. However, if a student fails a class, or if a program requires a higher grade in the respective course, that course may be repeated and certified to the VA again.

Montgomery County Community College policy for individuals authorized for VA educational assistance permits registration and enrollment into a MCCC degree or certificate program based on the beginning date of their respective benefit as indicated on their Certificate of Eligibility (COE) or on a "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website https://www.ebenefits.va.gov/ebenefits/homepage

Montgomery County Community College currently complies with the requirements of 38 USC 3679(e). Individuals who are approved for VA educational assistance under chapter 33: Post-9/11 GI Bill® benefits or chapter 31: Vocational Rehabilitation and Employment, are covered provided the individual

- Submits a certificate of eligibility (chapter 33) or VA Form 28-1905 (chapter 31) for entitlement to educational assistance no later than the first day of a course of education.
- Submits a written request to use such entitlement.
- Provides additional information necessary to the proper certification of enrollment by the educational institution.

Individuals are also covered with benefits dates on their COE or 28-1905 ending prior to:

- The date which payment from VA is made to the institution
- 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.
- Montgomery County Community College will not impose any penalties (i.e. late fees, denial of access to classes, libraries, institutional facilities etc., or require the student to borrow additional funds) on any covered individual because of the individual's inability to meet their financial obligations to the institution due to the delayed disbursement funding from the VA under chapters 33: Post-9/11 GI Bill® or 31: Vocational Rehabilitation and Employment assistance.

Active Duty, Reserve and National Guard Servicemembers

Montgomery County Community College also supports Active Duty, Reserve and National Guard Servicemembers. For questions and the process regarding your eligibility for Active Duty Tuition Assistance (TA) or for Pennsylvania National Guard Educational Assistance Program (EAP) respective benefits please go to https://www.mc3.edu/choosing-montco/resources-for-students/veterans-resource-center/active-duty-reservists-national-guard-service-members or contact Veteran Services for additional information and guidance.

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 **www.benefits.va.gov/gibill**.

HEALTH & WELLNESS

Health & Personal Property Insurance

Students are strongly encouraged to obtain insurance coverage for personal illness, injury and/or loss of personal property by fire or theft while attending the College. The College does not assume liability for illnesses and/or injuries sustained while on College premises and/or during clinical rotations and other educational internships at off-campus sites. The College does not provide payment for medications, laboratory tests and other medical services related to such illnesses and/or injuries. Students are urged to obtain their own personal health insurance coverage.

Students may be eligible for health insurance coverage under a parent's or guardian's health plan, depending on age, dependent status and other available resources for healthcare coverage.

To assist students in need of health insurance and/or healthcare-related services, the College's Office of Health & Wellness provides resource information on some low-to-moderate cost individual health plan options, as well as several local health centers/clinics offering a variety of health care services at a reduced cost. (Note: These plans and health centers/clinics are not associated with the College.)

Drug and Alcohol Abuse Prevention

The College is commited to assuring drug-and-alcohol-free environment. In addition, the College has a Clean Air Zone to support a healthy and safe environment for all who come to learn and work.
To support healthier lifestyle behaviors, the College offers alcohol and drug abuse awareness and prevention programs. Wellness-related information on tobacco addiction and the health risks associated with the use of illicit drugs and the abuse of alcohol are made available by Wellness Services. Additional information is available during many of the free wellness-related events held virutally and on campus. Wellness Services staff are available on a confidential basis, to respond to students with issues related to drugs and alcohol as well as to connect students with College and community resources.

DENTAL HYGIENE CLINIC

Blue Bell Campus
Health Science Center, Room 211, 215-641-6483
Fax 215-619-7171, http://mc3.edu/component/content/article/ 234-areas-of-study/health-sciences/dental-hygiene/8194-clinic

Since 1973, the Dental Hygiene Clinic on Blue Bell Campus has been providing the public with comprehensive preventive dental hygiene services. Services at this sophisticated dental facility include oral prophylaxis (teeth cleaning), initial periodontal therapy, x-rays, sealants, fluoride treatments and other procedures. Licensed dentists and dental hygiene faculty supervise all treatments. The Dental Hygiene Clinic operates September through May, by appointment. A nominal fee for service is charged to Montgomery County Community College students and employees.

ACADEMIC GRADING AND PROGRESSION POLICIES

Graded Designations

Grades	Quality Points
A	4
A-	3.67
B+	3.33
B	3
B-	2.67
C+	2.33
C	2
D	1
F	0
XF	Academic misconduct
FS	F stopped attending
NP	No pass
P	Pass

Non-Graded Designations

Grades	Quality Points
AU	Audit
AT	Attended
CE	Credit by exam
CL	Credit for prior learning experience
I	Incomplete
M	Military Deployment
NC	No credit
NS	No show for attendance
W	Student initiated during withdrawal period

Midterm Academic Progress*

Grades	Quality Points
S	Satisfactory
U	Unsatisfactory

* does not appear on transcript

Grading System

The **grading system** at Montgomery County Community College is a plus/minus system with associated quality points. These quality points are used in the calculation of the cumulative grade point average (GPA) for college level courses. A student's cumulative grade point average is determined by dividing the number of credits attempted into the quality points earned. The use of a GPA calculator can assist in calculating the cumulative grade point average. Each instructor provides written explanation of the approved grading system in the course syllabus. Students are responsible for understanding the grading system.

Note on Letter Grades

The lowest passing grade is "D." Students may repeat courses. The best grade earned will be used to calculate their GPA; however, all courses attempted and grades received appear on the transcript.

Monitoring of Attendance and Student Progress

Instructors are required to complete attendance reporting after 20 percent of the course contact time has occurred — at the second week of the semester or at the conclusion of the second class meeting in an accelerated session. An Early Alert is automatically issued for any student not attending class(es), so that proactive intervention can be initiated by the student's academic advisor. Instructors report students who have attended class meetings using a code of "AT" (Attended), and students who have never attended using a code of "NS" (No Show). If the student began course attendance and subsequently stopped attending, the instructor would report the student as "AT" and enter a Last Date of Attendance (LDA). It is the student's responsibility to notify the College if they intend to withdraw from classes. Failure to attend class meetings or to pay tuition and fees does not constitute a withdrawal ("W"). The instructor, after consultation with the Division Dean, determines course reentry for a student after extended absence or lack of beginning attendance in the course. The College does not disburse financial aid to students who have been identified as ineligible through this procedure.

Administrative Deregistration

Students are administratively deregistered for the purposes of dropping them from class rosters when they have been reported as a "NS" (No Show). Administrative deregistration is treated the same as a regular drop status as it relates to the student's GPA and course attempts. Instructors will assign an "FS" grade to a student who began attendance but subsequently stopped attending and did not withdraw.

Midterm Academic Progression

At the midterm period of each semester/session, instructors are required to enter an indicator of student progress into the electronic grading system. An "S" is entered if the student is making satisfactory academic progress (A, B or C grade); a "U" is entered if the student is attending classes and is not making satisfactory academic progress (a D or F grade). An Early Alert will be immediately entered for any student receiving a grade of "U," so that proactive intervention can be initiated by the student's advisor. At midterm, if the student has stopped attending, the instructor will assign a midterm grade of "U," enter a Last Date of Attendance (LDA) and a final grade of "FS."

Repeating a Course

Students can repeat a course to earn a higher grade. After two course attempts, requests for the third must be approved by a Dean, Director or Advisor.* A student who would like to request the possibility of a fourth course attempt must meet with the Provost or his/her designee for consideration. The College uses the best grade earned in the course to calculate the student's grade point average; however, the grade from each course attempt will appear on the student's transcript. It is important to note that all course withdrawals and audits count as attempts.

*Health career programs require the student to obtain the signature of the Program Director.

Withdrawal from Courses

Students initiate the process of course withdrawal after consultation with the instructor and/or their advisor. After the Add/Drop period ends and prior to completion of 60 percent of the course time, a student wishing to withdraw must submit an official drop/add/withdrawal form. An official grade of "W" (Withdrawal) is assigned to the course. After completion of 60 percent of the course time and prior to 75 percent of the course time, the student must request and receive permission from the course instructor to withdraw from the course. The instructor completes an online

Withdrawal Permission Form and indicates a final course status grade of "W" (Withdrawal). The College's Registration Calendar outlines specific dates associated with the withdrawal process that must be followed.

For Excused Withdrawal ("WEX") due to medical, catastrophic or other circumstances beyond the student's control, students can request withdrawal from a course during the semester after 75 percent of the course time with supporting documentation. Review of documentation for an Excused Withdrawal will occur by the Division Dean, Program Director or Instructor and a recommendation will be provided to the Provost's Office.

Incomplete Grade

After 75 percent of the course time has been completed, and prior to the last class meeting, students with satisfactory academic standing who are unable to complete their coursework due to valid, unforeseen circumstances can seek an incomplete grade of "I" with the permission of the instructor. If the request is approved, the instructor outlines an agreement of the work the student must complete on the Incomplete Form. An Early Alert is submitted by the instructor to the student's academic advisor so student progress can be monitored. The deadline for completing the course requirements is no more than three months* after the final day of the semester in which the Incomplete grade was issued. An "I" grade (Incomplete) is changed to an "F" grade when the agreement of work on the Incomplete Form is not satisfied or when more than three months from the final day of the semester have elapsed. This grade cannot be a withdrawal ("W"). The College's Registration Calendar outlines specific dates associated with the incomplete grade process.

*If a course requirement requires longer than three months, for example, a performance-based assessment, then this deadline can be extended with the approval of the Dean or Program Director.

Withdrawal for Military Deployment or Reassignment

The College will provide the following options for students who have been deployed or reassigned for military service in order to appropriately maintain the student's academic and financial records with Montgomery County Community College.

- During the Drop/Add registration period, with copies of the deployment orders, the Registrar may backdate the student's registration so that no charges are assessed for the term and no courses appear on an official transcript.
- After the drop/add period (Withdrawal Period), the affected student or student's spouse shall receive a grade of "M" on their official transcript for all classes they are unable to complete due to the military leave of absence. See http://www.mc3.edu/component/content/article/89-about-us/policies/aa-3/114-military. Without deployment orders the student must follow standard College withdrawal procedures. A retroactive appeal to have the courses and charges removed from the record can be initiated upon delivery of the required deployment orders.
- After the drop/add period (Withdrawal Period), the College can provide the student with an option to apply for an incomplete (I) grade with the course instructor. The incomplete grade (I) must be completed by the end of the semester following deployment. If the course is not completed and the student submitted a copy of the deployment orders prior to leaving, the incomplete grade (I) will be converted to a military withdrawal grade (M). If the student does not complete the requirements of the incomplete (I) grade and did not submit a copy of the deployment orders prior to leaving, the incomplete grade (I) will convert to a failing (F) grade. The student may appeal the grade and tuition upon return to the College with submission of the deployment orders.

DETERMINATION OF GRADE POINT AVERAGE (GPA)

The total grade points earned for each course attempted are determined by multiplying the credit hours by the grade point. The student's Grade Point Average (GPA) is then calculated by dividing the total amount of grade points earned by the total amount of credit hours attempted. The GPA may range from 0.0 to 4.0.

Course	Credit Hours	Grade	Points	Total Grade	Points
ENG 101	3	B	3	3 x 3.00 =	9.00
PSY 101	3	F	0	3 x 0.00 =	0.00
MAT 100	3	C	2	3 x 2.00 =	6.00
BIO 121	4	D	1	4 x 1.00 =	4.00
FRE 101	3	A	4	3 x 4.00 =	12.00
TOTAL	**16**				**31.00**

31 (total grade points) ÷ 16 (total credits attempted) = 1.93 + GPA

Credits attempted includecredits within the student's load for which grades of A, A-, B+, B, B-, C+, C, D, F are given. Credit for courses awarded CR, I, P, NP, CL, NG, W, TR, CE or AU, AW are not included in the GPA calculation. Courses with a course number below 100 are also not included in the GPA.

GRADE REPORTS

Students must obtain their grade reports on Self-Service, the College's automated recordkeeping and reporting system that provides protected access to academic and financial records.

GRADE APPEAL

In the interest of due process, the College provides an appeal process for a student who believes that a recorded final grade does not accurately reflect his/her academic performance in a course. This policy is applicable for both credit and non-credit offerings. Grades can be appealed in instances where a student believes that an inaccurate final grade has been issued due to: a mechanical error, such as miscalculation of final grade or error in recording final grade; inconsistent grading practice, such as grade not based on student's academic performance in the course and/or grade based on standards different from those applied to other students in that course; or a deviation from the syllabus, such as an unannounced, unreasonable, and/or ungrounded change from the instructor's previously articulated standards. See Policies and Procedures on the college website for the

Grade Appeal Policy including the process and corresponding deadlines: https://www.mc3.edu/about-mccc/policies-and-procedures/grade-appeal

PROGRAM EVALUATIONS

Student Success Centers

Blue Bell Campus

College Hall
215-641-6577
advising@mc3.edu

Pottstown Campus

South Hall
610-718-1906
advising@mc3.edu

The Program Evaluation is a personalized computer analysis of a student's progress toward graduation in a major. It includes courses taken at Montgomery County Community College, course equivalents for transferred courses from other colleges, general information about the program requirements, and a list of courses that do not apply to the selected program. We encourage students to review their Program Evaluations to monitor their academic progress, and to identify the coursework they have yet to complete in their current major.

In the event that a student chooses to request a course substitution in order to meet program requirements, a Request to Substitute a Course form is submitted together with supporting documentation. The request is forwarded electronically to the appropriate dean for the identified program after review by the student's assigned advisor. Students are notified via College email of either approval or denial of the request. The electronic Course Substitution form is found on the student Montco Connect portal under the Tools menu.

Students are encouraged to view and print their Program Evaluation at www.mc3.edu, accessing Student Self-Service and select Academics then View My Progress. Students may also see how their coursework applies to a different major by using the View a New Program feature of My Progress on Student Planning or by requesting a new audit from the offices listed above. Questions about the Program Evaluation may be answered in either Student Success Center.

CHANGING A MAJOR

Student Success Centers

Blue Bell Campus

College Hall
advising@mc3.edu

Pottstown Campus

South Hall
advising@mc3.edu

Students who wish to change their programs of study must complete a Change of Major form available online in the Student Portal.

DISTINCTIONS FOR HIGH GRADES

The College awards distinctions to students in recognition of high academic achievement.

Dean's List

The College recognizes the academic achievement of full-time students who have earned 12 or more cumulative credits. To receive Dean's List status, full-time students must have earned a GPA of 3.5 or above in the most recently completed semester, completed 12 or more credits and have not earned any F, NP or I grades or have been placed on Academic Warning for that semester. Developmental level courses are excluded in this computation.

Dean's Commendation List

The College recognizes the academic achievement of part-time students who have earned 12 or more cumulative credits. To receive Dean's Commendation List status, part-time students must have

earned a GPA of 3.5 or above in the most recently completed semester, completed 3 to 11 credits and have not earned any F, NP or I grades or have been placed on Academic Warning for that semester. Developmental level courses are excluded in this computation.

Graduation Honors

To graduate from the College with an Honors distinction, an Associate Degree student must earn a cumulative GPA of:

- 3.25 to 3.49 for cum laude
- 3.50 to 3.74 for magna cum laude
- 3.75 to 4.00 for summa cum laude

Students who were issued an XF grade at any point during their academic career at the College are ineligible for graduation honors.

ACADEMIC PROGRESSION

In an effort to increase the ability of students to reach their educational goals, the College has established academic milestones to monitor the continuum of progression toward graduation.

To graduate from the College, a student must fulfill all degree or certificate requirements and earn a cumulative Grade Point Average (GPA) of 2.0 or better. Acceptable progression toward graduation includes maintaining a cumulative GPA as outlined in the Academic Progress Table.

Academic Warning

A student who earned a semester GPA less than 2.0 or who received an F, XF or NP grade in college-level courses or a D, F, XF or NP grade in developmental courses will be issued an Academic Warning unless he/she falls into another category as outlined in the Academic Progress Table.

Academic Probation

A student who has attempted 12 credits or more will be placed on Academic Probation if the cumulative GPA falls within the range as outlined in the Academic Progress Table.

Academic Suspension

The College will issue Academic Suspension to a student who has attempted 24 cumulative credits or more and meets the following: has semester GPA less than 2.0; has been on Academic Probation for at least three semesters since entering the College; and has a cumulative GPA within the range as outlined in the Academic Progress Table. See http://www.mc3.edu/about-us/policies/116.

STUDENT ACADEMIC CODE OF ETHICS

In the pursuit of knowledge and higher education, members of the academic community, specifically students enrolled in credit and non-credit programs, at Montgomery County Community College must maintain a constant commitment to academic ethics. The College cultivates an environment that fosters critical thinking and learning, and in order to safeguard the integrity of the institution, students are expected to follow the policies of the College. Students who practice academic honesty demonstrate respect for the educational process and support the accomplishments of fellow students, while upholding the College's

reputation. Therefore, it is expected that students will participate in a culture of academic honesty.

The Academic Code of Ethics and other College policies, such as the Student Code of Conduct and Acceptable Use of Technology Policy, create an integrated ethics policy for the College. With respect to these policies, some programs may have additional expectations students are required to meet. Students who do not adhere to all codes are subject to the consequences outlined in each respective policy.

By attending the College, students accept this Student Academic Code of Ethics. To review the entire Academic Code of Ethics and the consequences for non-adherence https://www.mc3.edu/about-mccc/policies-and-procedures/student-academic-code-of-ethics

ACADEMIC DISCIPLINE

Students are expected to be well-motivated and constructive in their pursuit of learning. Attendance at the College is a privilege, not a right. Students, by the act of registration, concede to the College the right to require the withdrawal of any student at any time when necessary to safeguard the College's ideals of scholarship and character and to secure compliance with its regulations.

Each individual faculty member has the right to remove a student from class for reasons of academic discipline. When academic discipline problems cannot be satisfactorily resolved with the student, faculty member and division dean, the matter will be adjudicated by the Vice President of Academic Affairs. A written statement will be filed with the Vice President by the faculty member or student involved in the situation. The Vice President shall then meet with the faculty member and student(s) involved and shall decide what action, if any, will be taken.

If, after this meeting, any of the parties are not satisfied with the resulting decision, formal procedures follow guidelines developed by the Committee on Academic Progress.

Instances of non-academic student misconduct are the responsibility of the Dean of Student Affairs at Blue Bell Campus or the Assistant Vice President of Student Affairs at Pottstown Campus.

ACADEMIC PROGRESS TABLE

Cumulative Credits Attempted	GPA for Academic Suspension	GPA for Academic Probation	Minimum Acceptable Progress (Cumulative GPA)
12-23	—	0.00 - 1.50	1.51
24-35	0.00 - 1.39	1.40 - 1.74	1.75
36-47	0.00 - 1.49	1.50 - 1.82	1.83
48-59	0.00 - 1.59	1.60 - 1.99	2.00
60+	0.00 - 1.69	1.70 - 1.99	2.00

STUDENT RECORDS AND TRANSCRIPTS

PRIVACY OF STUDENT RECORDS

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

Montgomery County Community College accords all the rights under the Family Educational Rights and Privacy Act of 1974 (the Act) to its students. The College collects, maintains, secures and destroys student records for the educational welfare and advancement of the students. No one outside the College shall have access to, nor will the College disclose any information from students' education records without the written consent of the students, except to personnel within the College, to officials of other institutions in which students seek to enroll, to persons or organizations providing students financial aid, to accrediting agencies carrying out their accreditation functions, to persons in compliance with a judicial order, to persons in an emergency in order to protect the health or safety of students or other persons, and to individuals and agencies permitted under the Act. The Act affords current and former attending and registered students of the College the right to access their education records.

Notification of Rights under FERPA

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

1. The right to inspect and review the student's education records within 45 days of the College receiving a request for access.Students should submit written requests for records to the Director of Student Records and Registration/Registrar. The Director of Student Records and Registration/Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Director of Student Records and Registration/Registrar, that official shall advise the student of the correct official/department the student should expect to hear from within 15 business days.
2. The right to request the amendment of the student's education record that the student believes is inaccurate. Students may ask the College to amend a record that they believe is inaccurate. They should direct a written request to the Director of Student Records and Registration/Registrar clearly identifying the part of the record they want changed and specifying why it is inaccurate.
3. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision within 15 days and will advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
4. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent as indicated below:
    a. to school officials who have a legitimate educational interest in the record
    b. to officials of another school where the student seeks or intends to enroll, or where the student is

already enrolled if the disclosure is for purposes related to the student's enrollment or transfer

c. to authorized representatives of the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as a state postsecondary authority that is responsible for supervising the College's state-supported education programs. Disclosures under this provision may be made in connection with an audit or evaluation of federal- or state-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of Personally Identifiable Information to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation or enforcement or compliance activity on their behalf

d. in connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid or to enforce the terms and conditions of the aid

e. to organizations conducting certain studies for or on behalf of the College, or in order to (a) develop, validate or administer predictive tests; (b) administer student aid programs; or (c) improve instruction

f. to accrediting organizations to carry out their functions

g. to parents of an eligible student, if the student is a dependent, for IRS tax purposes

h. to comply with a judicial order or a lawfully issued subpoena.

i. to appropriate officials in connection with a health or safety emergency

j. as it relates to directory information, unless the student restricts directory information

k. to a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, the disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding

l. to the general public, the final results of a disciplinary proceeding, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the College's rules or policies with respect to the allegation made against him or her

m. to the parents of a student regarding the student's violation of any federal, state, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21

n. to the student

5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

   Family Policy Compliance Office
   U.S. Department of Education
   400 Maryland Avenue, SW
   Washington, DC 20202-5901

Notice for Directory Information

Within Montgomery County Community College, school officials who have been determined by the College to have legitimate educational interests may receive personally identifiable information from the student's education records without the student's consent. These school officials may include personnel employed by the College in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide service instead of using College employees or officials; or a student serving on an official committee such as a disciplinary or grievance committee. In addition, authorized representatives may receive personally identifiable information with respect to federal- or state-supported educational programs, in conducting any audit or evaluation, or any compliance or enforcement activity in connection with federal legal requirements that relate to these programs. The College may provide directory information in accordance with the provisions of the Act to include:

- Student's full name
- Address
- Electronic mail address
- Photograph
- Telephone listing
- Date of birth
- Major field of study
- Dates of attendance/enrollment
- Participation in officially recognized activities and sports
- Weight and height (members of athletic teams)
- Degrees, honors and awards received
- Most recent educational agency or institution attended
- Enrollment status (full-time or part-time)

Students may withhold directory information by notifying the Director of Records and Registration/Registrar in writing within three weeks after the first day of classes for the semester in which the withholding of directory information is to take effect. A student's requests for non- disclosure will be honored until the student requests its removal.

TRANSCRIPTS

A transcript is a comprehensive record of your academic progress, including coursework, grades and degrees earned. Online requests for transcripts are fulfilled through the National Student Clearinghouse, a trusted source for secure transcript delivery. Transcripts cost $5 per copy. To order a transcript, visit https://www.mc3.edu/admissions/transferring/request-mccc-transcripts

WHERE TO GO FOR MORE INFORMATION

In compliance with federal regulations, here is a list of key contacts for specific disclosure information.

Rights under Family Education Rights and Privacy Act (FERPA)
Director of Records and Registration/Registrar Blue Bell Campus, 215-641-6562

FFEL/Direct Loan Deferments for Peace Corps or Volunteer Services
Financial Aid, 215-641-6566

Completion, Graduation and Transfer Out Rates
Institutional Research, 215-641-6674

Campus Security Statistics
Public Safety, 215-641-6605

DEGREE REQUIREMENTS AND GRADUATION

DEGREE AND CERTIFICATE REQUIREMENTS

All of the core classes and number of credits required in each discipline for the degrees and certificates offered by the College are listed in the "Core Curriculum and Degrees" section of this catalog and the sections for each academic division. Students should also work closely with Advisors to ensure that they take the appropriate courses.

It is the student's responsibility to meet all requirements in the selected program of study, including any developmental level course requirements. Students may track their academic progress through Student Educational Planning on Montco Connect.

GRADUATION

Graduation eligibility is reviewed by the College. The Registrar's Office will add a graduation application for students who are nearing completion of their program. Students can view their graduation application in Self-Service. Students are strongly encouraged to regularly review their degree requirements and eligibility with their advisor to ensure that they are on track to meet their graduation requirements.

To graduate, degree students must complete a minimum of 60 semester credits. Students who have earned credit through transfer and assessment of prior learning experiences must complete at least 25 percent of the required credits in order to earn a degree or certificate from Montgomery County Community College.

Diplomas and certificates will not be released until all financial obligations of a student to the College have been met, including tuition and fees, parking tickets and technology fines or fees.

The College reserves the right to graduate students who have completed all their program requirements.

SELECTING YOUR PROGRAM OF STUDY

DEGREE AND CERTIFICATE PROGRAMS

The College meets the diverse educational and occupational needs of our students with a variety of degree and certificate options. To graduate, students must earn a cumulative GPA of at least 2.0 and fulfill all degree requirements of the program in which they are enrolled.

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website at, www.mc3/gainfulemployment.

Associate in Arts

Associate in Arts (AA) degrees are designed to provide the first two years of education for students who intend to transfer to a four-year institution. These programs are designed to give students broad, general background in subjects ranging from English and history to science and mathematics. Through electives, students may pursue individual interests while they are being exposed to their core curriculum.

Associate in Fine Art

The Associate in Fine Art (AFA) curriculum provides the foundation studies and studio expertise that parallels the first two years of study at a four-year college. The program also provides students whose intention it is to seek employment after earning an associate's degree with the opportunity to develop their skills and produce a portfolio in the visual arts.

Associate in Science

Associate in Science (AS) degrees are designed primarily for students who intend to transfer to a four-year institution. Most of the programs also prepare the student for immediate entrance into a career. Our AS programs provide a solid foundation in traditional liberal arts courses and specialty courses.

Associate in Applied Science

Associate in Applied Science (AAS) degrees are designed to enable students to prepare for employment immediately upon graduation.

Certificate Programs

The College's certificate programs are designed to provide education leading to entry-level employment. The certificate programs are generally discipline- intensive, containing few core curriculum courses; however, most certificate courses can be applied to a corresponding associate's degree program.

Specialty Certificates

The College awards professional certificates to students who have completed at least 30 college credits and return to school to pursue special, intensive study in a specialized program consisting of at least 18 credit hours.

Certificates of Completion

The College has designed short-term, job-ready certificate programs that can be completed in as little as one semester.

Additional Degrees

Students who want to receive additional associate degrees from the College must complete at least 21 additional college-level credits per

degree and fulfill all of the course requirements for each degree as outlined in this catalog.

Certificate Programs, Non-Credit

The College's non-credit certificate programs are designed to provide training in less than one year for entry-level high-demand occupations. Most of the certificate programs include preparation to take exams for industry certifications. Several of the programs include an internship or practicum. With successful completion of some programs, completed coursework can be articulated to count toward credit requirements for a credit certificate or degree program.

MEETING THE REQUIREMENTS

Our requirements are recommended in the sense that we have structured them to provide students with specific courses of study to meet educational requirements elsewhere. Students planning to transfer to the junior class of a four-year institution are offered courses at Montgomery County Community College that parallel those offered in the freshman and sophomore years of most four-year colleges and universities. The College realizes, however, that our requirements will occasionally not accommodate the objectives of all students, even though our programs frequently allow electives; therefore, students may choose to substitute other courses if their selections are approved by the appropriate Division Dean or Program Director.

Similarly, students planning to transfer to four-year institutions are responsible for knowing the precise freshman and sophomore requirements of those institutions, so that they can plan their curriculum at the College accordingly.

SELECTING YOUR COURSES: COURSE NUMBERING AND CREDITS

Much of the rest of this Catalog is devoted to the core curriculum requirements for the College's degrees, details on the programs and course requirements within each of the College's academic divisions and descriptions of each individual course.

To help you choose your courses, here is a guide to what their numbers and prefixes mean, as well as how the College calculates course credits:

Deciphering a Course Number and Prefix

Courses are designated with a three-letter course prefix and three numbers. The three-letter course prefix is an abbreviation for the discipline — for example, NUR for Nursing. The three digits of the course number indicate the following:

- The first digit generally refers to class level/year, with 0 indicating below college level, 1 indicating freshman level and 2 indicating sophomore level.
- The second digit generally refers to the level within a discipline, where possible. The higher the number, the more advanced the course.
- The third digit refers, where appropriate, to sequences within specializations of the discipline. For example, 0 indicates a one-semester introductory or survey course in the discipline, and 1 and 2 indicate a basic two-course sequence. Numbers above 2 designate other advanced courses and/or sequences.

For example: EDU 100

EDU = Education course
1 = Freshman level
0 = Lowest-level course in discipline
0 = Introductory or survey course

Numbers Representing Content Levels

- Courses numbered 1 to 19 are developmental; they have content similar to high school or below high school level. They include basic skill courses such as arithmetic, algebra, elementary reading and writing. They may not be applied toward the graduation credit requirements for a degree or certificate. However, students placing into these courses as a result of placement testing must complete each course with a grade of C or better in order to graduate with a degree or earn a certificate.
- Courses numbered 20 to 99 are specialized courses that have high school-level content but are not basic skill-level courses. They may not be applied toward graduation credit requirements for certificates or degrees.
- Courses numbered 100 to 199 have content at the college freshman level. Most of these courses require a high school-level background or equivalent in order for the student to receive maximum benefit and have a reasonable chance of succeeding in the course. These courses may apply toward graduation credit requirements of degrees and certificates.
- Courses numbered 200 to 299 have content at the college sophomore level. Most of these courses require that a student have a freshman-level background or equivalent in the discipline and/or related skill areas in order to receive maximum benefit and have a reasonable chance of succeeding in the course. These courses may apply toward graduation credit requirements for degrees and certificates.

INTERNSHIPS AND INDEPENDENT STUDY

Each discipline may utilize internships and independent study. The faculty of each discipline, along with the Division Dean, determine the appropriateness of these classes for their students' curriculum needs.

198, 298 Cooperative Internships

These courses, available in a number of disciplines, provide students with an opportunity to integrate what they have learned in the classroom with valuable hands-on work experience in their field of study. Students work full-or part-time for a specified period of time (usually a minimum of 225 hours for three credits).
198 Cooperative Internship I
298 Cooperative Internship II

199, 299 Independent Study

Independent Study is a one-semester course that affords the student and instructor the flexibility to collaborate in creating an individualized plan of learning that builds upon previous course work within the discipline, expands the student's knowledge in an area of interest and/or promotes continued personal development. A contract for individualized learning is

developed collaboratively between the instructor and student and submitted to the Division Dean for consideration.

HOW THE COLLEGE DETERMINES COURSE CREDITS

One College semester credit hour is a unit of coursework equivalent to 55 minutes of instruction per week, for 14 weeks of lecture or equivalent-type classes. It also assumes that students, on average, have a minimum of two hours of out-of-class study each week.

Not all courses are taught in a lecture format. Three commonly accepted semester-hour equivalents for laboratory and clinic instruction are:

- One semester-hour credit equals two hours of structured laboratory study weekly, which includes frequent tutorial or lecture-type interaction of a faculty member with students, and a minimum (on average) of one hour of out-of-lab study weekly. An example is computer science courses that have two lecture hours weekly, two lab hours weekly and three credits.
- One semester-hour credit equals three hours of structured laboratory study that includes less frequent interaction between the faculty member and students than the first example, with few out-of-lab assignments. Examples include biology, chemistry and physics courses that have three lecture hours weekly, three lab hours weekly and four credits.
- One semester hour equals usually not more than five hours of clinical time weekly, which includes some interaction between a faculty member and the student. Outside assignments may augment the clinic. Dental hygiene, medical laboratory technician, nursing, radiography and surgical technology courses fall into this category.

The three numbers following a course title indicate, in order, the credit hours for the course, the number of hours per week the class meets for lectures, and the number of hours per week spent in the laboratory.

For example: BIO 121 General Biology 1, 4-3-3
4 = four hours credit
3 = three hours weekly of lecture
3 = three hours weekly of lab

ADVANCED TECHNOLOGY

MAJORS, DEGREES AND CERTIFICATES

Major codes are used during admission and when you declare a major. Note: Career programs are for students who plan to immediately enter the workforce. Transfer programs are for students who plan to transfer on to another educational institution.

TWO-YEAR ASSOCIATE DEGREES	MAJOR CODE	DEGREE CODE
Career Programs		
Accounting	AL	AAS
Baking and Pastry Arts	CUL.B	AAS
Biotechnology	BIT	AAS
Cloud Computing	CLC	AAS
Computer Networking and Cyber Security	CNCYBS	AAS
Culinary Arts	CUL.A	AAS
Dental Hygiene (Selective Admission)	DH	AAS
Engineering Technology - Nanofabrication	ET.N	AAS
Health & Fitness Professional	PE.FIT	AAS
Human Services -	MH	AAS
Addictions	MH.DA	AAS
Child, Youth, and Family Services	MH.Y	AAS
Gerontology	MH.GER	AAS
Management		
Management	MGT	AAS
Marketing	MGT.MKT	AAS
Office Management	MGT.OFM	AAS
Organizational Leadership	MGT.OLEA	AAS
Medical Laboratory Technician (Selective Admission)	ML	AAS
Nursing (Selective Admission)	NR	AAS
Radiography (Selective Admission)	RT	AAS
Physical Therapist Assistant (Selective Admission)	PTA	AAS
Sound Recording Music Technology	SRT	AAS
Surgical Technology (Selective Admission)	SR	AAS
Tourism and Hospitality Management	THM	AAS
Web Development and Design	WDEVDES	AAS

TWO-YEAR ASSOCIATE DEGREES	MAJOR CODE	DEGREE CODE
Transfer Programs		
Business Administration	BA	AS
Computer Science	SC	AS
Criminal Justice	CJ	AS
Education in the Early Years - Birth through 4th Grade	EEY	AA
Education in the Middle Years - Fourth through Eighth Grade	EMY	AA
Engineering Science	EG	AS
Electrical	EG.E	AS
Mechanical	EG.M	AS
Environmental Studies	EVS	AS
Exercise Science and Wellness -	ESW	AS
Fine Art	FA.AFA	AFA
Healthcare Administration -	HCA	AS
Medical Assisting	HCA.MA	
Medical Coding	HCA.MC	
Medical Office Assistant	HCA.MOA	
History	HIS	AA
Information Technology	IT	AS
Liberal Studies	LIB	AA
Life Sciences	LSC	AS
Life Sciences - Biomedical	LSC.BIOM	AS
Mass Media		
Mass Media Production	CMM.MP	AA
Mass Media Studies	CMM.MS	AA
Mathematics	LM	AA
Music	MU	AA
Physical Sciences	LP	AS
Psychology	PSY	AS
Public Health	PBH	AS
Secondary Education	ES	AA
Theater Arts	THA	AA

CERTIFICATE PROGRAMS	MAJOR CODE	DEGREE CODE
One-Year/Less (Career)		
Accounting	C.ACC	CRT
Cloud Computing	C.CLC	CRT
Computer Networking and Cyber Security	C.CNCYBS	CRT
Culinary Arts	C.CULA	CRT
Baking & Pastry Arts	C.CULB	CRT
Addictions	CD	CRT
Gerontology	CG	CRT
Human Services	C.MH	CRT
Management	C.MGT	CRT
Marketing	C.MKT	CRT
Medical Assisting	C.MA	CRT
Office Management	C.OFM	CRT
Organizational Leadership	C.OLEA	CRT
Personal Training	C.PT	CRT
Software Engineering	C.SOFT	CRT
Tourism and Hospitality Management	C.THM	CRT
Web Development and Design	C.DES	CRT

SPECIALTY CERTIFICATES	MAJOR CODE	DEGREE CODE
Accounting	PA	SPC

CERTIFICATE OF COMPLETION	MAJOR CODE	DEGREE CODE
Short-Term (Job-Ready)		
Biotechnology and Biomanufacturing	CS.BIT	CC
Certified Bookkeeper and Quickbooks	CS.CBQ	CC
Entrepreneurship	CS.ETP	CC
Honors International Business	CS.HIB	CC
GIS Systems Operation	CS.GIS	CC
Medical Coding	CS.MC	CC
Medical Office Assistant	CS.MOA	CC
Payroll Specialist	CS.PRS	CC
Phlebotomy	CS.PBT	CC
Professional Leadership	CS.PLEA	CC
Public Relations	CS.PPR	CC

NON-CREDIT WORKFORCE DEVELOPMENT CERTIFICATE PROGRAMS-please see below for a shortlist of offerings and some of the contacts to use.

Information Technology:

- Cloud+(On-Demand)
- CompTIA A+ Core 1 & 2 (Self-Study)
- CYSA+(On-Demand)
- Data+(On-Demand)
- Linux+(On-Demand)
- Office 365 (aligns with MOS)
- PenTest +(On-Demand)
- Security +(On-Demand)
- Please contact **tross@mc3.edu** f

Healthcare:

- Medical Billing Specialist
- Sterile Processing Technician
- Certified Professional Coder (CPC) Prep Course

For more info on the healthcare programs above, please contact **bdebias@mc3.edu**

Business:

- Project Management
- Real estate: Fundamentals; Practice

For more info on the business programs above, please contact **bdebias@mc3.edu**

- Notary: Public; Signing Agent – please contact **mjwagner@mc3.edu**

Manufacturing:

- CNC
- Continuous Improvement
- Please contact **tross@mc3.edu**

Customized Training Areas:

- Project Management
- Microsoft Office
- Continuous Improvement
- Leadership
- Please contact **bdebias@mc3.edu**
- **Wednet-** Montco administers the**WEDnetPA Training Grant#**to help Montgomery County companies train their workforce. WEDnet offers training reimbursement grants to eligible employers of up to $2,000 per eligible employee. Contact the Workforce Development Division for eligibility questions and more information at**kfaulk@mc3.edu**

Apprenticeships:

- Apprenticeships – please contact **apprenticeship@mc3.edu** for info.

Liberal Arts

- ESL (noncredit)
- Ceramics (noncredit)
- Contact **liberalarts@mc3.edu** for info.

To see all current certificate program offerings, please visit our website at:https://www.mc3.edu/degrees-and-programs/workforce-development.

GENERAL EDUCATION CORE CURRICULUM

The General Education Core Curriculum offers students the opportunity to explore a range of classic academic subjects. It also enables them to develop the common skills, knowledge and values needed to be productive and prosperous in our ever-changing local and global environments.

Developed by Montco's faculty, the General Education Core Curriculum's six learning areas and competencies help students to communicate, understand, solve problems and value themselves and others. They create a solid educational foundation, providing students with the tools necessary for an informed, constructive future and a good quality of life. The Core fosters the intellectual habits and breadth of academic experiences that are the hallmark of an educated person.

WHAT DOES THE GENERAL EDUCATION CORE CURRICULUM MEAN FOR STUDENTS?

All programs have been designed by the faculty to include the core requirements. Students will meet the core requirements by following the program as noted in the course catalog and on the College's website. Courses meeting the core goals are identified on the College's website and listed below. Students with questions about the program of study, possible course substitutions and transfers should meet with an advisor in the Student Success Center.

COURSES MEETING GENERAL EDUCATION AREAS

Aesthetic Sensibility

ART 101, ART 102, ART 103, ART 104, ART 109, ART 111, ART 121, ART 138, ART 161, ART 171, ART 180, CIS 137, DAN 102, DAN 104, DAN 110, DAN 121, DAN 123, DAN 131, DAN 134, DAN 151, DAN 155/156/157 (combined), DAN 161, DAN 251, ENG 201, ENG 202, ENG 211, ENG 212, ENG 221, ENG 222, ENG 235, ENG 236, ENG 237, ENG 238, ENG 245, ENG 246, ENG 250, ENG 255, ENG 256, ENG 257, ENG 265, ENG 266, ENG 275, GEO 220, MSP 230, MUS 110, MUS 137, MUS 221, SRT 137, THA 105, THA 114, THA 150

Communication

Oral Communication
CMS 110, CMS 113, CMS 120, CMS 230, THA 105

Written Communication
CMS 125, CMS 225, ENG 101, ENG 102, ENG 115, ENG 117, MSP 230

Cultural Awareness and Diversity

ANT 101, ANT 104, ANT 204, BIO 115, CHI 101, CHI 102, CMS 115, ENG 212, ENG 222, ENG 246, ENG 255, ESW 207, ESW 255, FRE 101, FRE 102, GEO 110, GEO 130, GEO 207, GER 101, GER 102, HCP 221, HIS 101, HIS 102, HIS 121, HIS 122, HIS 190, HIS 203, HIS 205, HIS 214, HIS 218, HIS 220, HIS 234, HIS 235, HIS 250, HIS 260, HOS 190, HSW 105, IDS 115, ITA 101, ITA 102, JPN 101, JPN 102, MUS 114, POL 101, POL 124, PSY 137, PSY 255, SOC 101, SOC 105, SOC 224, SOC 230, SPA 101, SPA 102

Ethical Perspectives

ACC 150, BIO 115, CJS 205, CMS 115, CMS 202, ECO 117, ESW 255, HCP 114, HCP 120, HIS 101, HIS 102, HIS 205, HIS 214, HIS 218, HIS 234, HIS 235, HIS 260, HSW 105, MAS 114, MGT 111, MGT 210, MKT 111, MSP 200, PBH 101, PHI 100, PHI 101, PHI 115, PHI 120, PSY 255, SOC 105

Reasoning

Quantitative Reasoning
ACC 110, MAT 103, MAT 106, MAT 130, MAT 131, MAT 140, MAT 188/189 (combined), MAT 190

Scientific Reasoning
AST 120, AST 121, BIO 117, BIO 120, BIO 121, BIO 140, CHE 121, CHE 131, CHE 151, CUL 117, GLG 115, GLG 120, GLG 121, GLG 125, GLG 151, PHY 115, PHY 120, PHY 121, PHY 151

Technological Fluency

CIS 110, CIS 1101, CIS 111, CIS 137, CIS 155, CIS 215, GEO 210, GEO 220, MUS 137, OFM 101, SRT 137

BUSINESS

ACCOUNTING (A.A.S.)

Purpose

The Accounting program is designed to prepare students to analyze, record, communicate and evaluate the results of the business. Graduates will be prepared for employment in an accounting department in a variety of clerical and bookkeeping positions. Graduates will also be prepared for national certification exams to gain additional credentials that certify proficiency in payroll, bookkeeping, and QuickBooks.

Program Outcomes

- Create financial statements, performing each step in double entry accounting cycle in both a manual and computerized environment utilizing QuickBooks;
- Prepare all calculations, entries and reports for a complete payroll cycle;
- Evaluate financial statements as they effect the profitability, liquidity, and solvency of the business organization;
- Report accounting information relevant for managerial planning and decision making;
- Apply the laws, regulations, and accounting practices pertaining to individual federal taxes.

Our 61- to 62-credit-hour program also teaches you critical thinking and problem-solving skills, traits valued in the business and financial worlds. Additionally, it gives you the practical knowledge needed to work as a bookkeeper. After successfully completing the program, you will receive an Associate of Applied Science degree in accounting. You also will be prepared to pass national certification exams to gain additional credentials that certify proficiency in payroll, bookkeeping, and QuickBooks skills and knowledge.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
Elective - Aesthetic Sensibility....3
Elective - Cultural Awareness and Diversity....3
OFM 101 - Business Software Essentials....3
Elective - **Oral Communication**....3
Elective - Scientific Reasoning....3 - 4

Major Requirements

ACC 110 - Business Mathematics....3
ACC 115 - Financial Accounting....4
ACC 116 - Managerial Accounting....3
ACC 117 - Payroll Accounting....3
ACC 118 - Professional Bookkeeping....3
ACC 150 - Legal Environment of Business....3
ACC 211 - Intermediate Accounting I....3
ACC 221 - Accounting Information Systems....3
ACC 230 - Cost Accounting....3
ACC 241 - Tax Accounting....3
ECO 110 - Elements of Economics....3
MGT 110 - Introduction to Business....3
MGT 114 - Strategic Analytics for Leaders....3

Electives

Elective - Elective....3

TOTAL PROGRAM CREDITS: 62

ACCOUNTING (CERTIFICATE)

Purpose

The Accounting Certificate program is designed to prepare students for a bookkeeping position in small- to medium-sized firms or as a payroll, accounts payable, or accounts receivable clerk in a larger firm. All of the courses can be applied toward an associate's degree in Accounting.

Program Outcomes

- Create financial statements, performing each step in double-entry accounting cycle in both a manual and computerized environment utilizing QuickBooks;
- Apply concepts of internal control to business processes;
- Prepare all calculations, entries and reports for a complete payroll cycle;
- Report accounting information relevant for managerial planning decision-making

Program Curriculum

ACC 110 - Business Mathematics....3
ACC 115 - Financial Accounting....4
ACC 116 - Managerial Accounting....3
ACC 117 - Payroll Accounting....3
ACC 118 - Professional Bookkeeping....3
ACC 221 - Accounting Information Systems....3
ENG 101 or Oral Communication Elective - English Composition I or Oral Communication....3
MGT 110 - Introduction to Business....3
MGT 114 - Strategic Analytics for Leaders....3
OFM 101 - Business Software Essentials....3

TOTAL PROGRAM CREDITS: 31

ACCOUNTING WITH QUICKBOOKS (CERTIFICATE OF COMPLETION)

Purpose

The Certificate of Completion program is designed to prepare the graduate for a bookkeeping position in a small to medium sized firm with additional skills in internal control and computerized accounting using QuickBooks software. Career students requiring more in-depth accounting skills, will gain solid technical knowledge and practical skills, thereby substantially improving on-the-job performance and providing the skills for higher-level jobs. All of the courses can be applied toward an Associate Degree in Accounting.Students completing the Certified Bookkeeper and QuickBooks Certificate of Completion program will be prepared for a national certification exam to obtain a certified bookkeeper designation and the Intuit QuickBooks Certified User Exam. Students will also be prepared for the national certification exam to obtain the American Payroll Association's (APA) Fundamental Payroll Certification (FPC) designation.

Program Outcomes

- Create financial statements, performing each step in double-entry accounting cycle in a computerized environment utilizing QuickBooks;

- Report accounting information relevant for managerial planning and decision-making;
- Apply concepts of internal control to business processes;
- Prepare all calculations, entries and reports for a complete payroll cycle

This certificate of completion is designed to prepare the graduate for a bookkeeping position in a small to medium sized firm with additional skills in internal control and computerized accounting using QuickBooks software. Career students, requiring more in-depth accounting skills, will gain solid technical knowledge and practical skills thereby substantially improving on-the-job performance and providing the skills for higher-level jobs. All of the courses can be applied toward an Associate Degree in Accounting.

Program Curriculum

ACC 110 - Business Mathematics....3
ACC 115 - Financial Accounting....4
ACC 116 - Managerial Accounting....3
ACC 117 - Payroll Accounting....3
ACC 118 - Professional Bookkeeping....3
ACC 221 - Accounting Information Systems....3
OFM 101 - Business Software Essentials....3

TOTAL PROGRAM CREDITS: 22

BUSINESS ADMINISTRATION (A.S.)

Purpose

The Business Administration program is designed primarily for those students who plan to transfer to a four-year college or university and major in an area of business such as accounting, finance, international business, management, marketing, human resources management, information systems, etc.

Program Outcomes

- Analyze the preparation of financial statements and managerial accounting reports, and their use to support decision-making by internal and external users;
- Analyze macroeconomic and microeconomic environments of business;
- Examine management theory and practices in the key functional areas within an organization in today's global business environment;
- Examine how marketing integrates with other functional areas within the organization as well as society as a whole;
- Apply relevant laws, regulations and ethical considerations to U.S. and international business activity for potential liability and legal protection and remedies.

The Business Administration program meets the Pennsylvania Department of Education's Transfer Agreement Oversight Committee (TAOC) for a seamless transfer to schools in the Pennsylvania State System of Higher Education (PASSHE). These include Kutztown, Millersville and Slippery Rock. Additionally, we have program-to-program transfer agreements with such schools as Arcadia, Cabrini, Chestnut Hill, Wilmington and Albright.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
Elective - Technological Fluency....3
ENG 102 - English Composition II....3
Elective - Aesthetic Sensibility....3
CMS 110 or CMS 120 - Introduction to Speech Communication or Public Speaking....3
Elective - Scientific Reasoning....4
Elective - Cultural Awareness and Diversity....3

Major Requirements

ACC 115 - Financial Accounting....4
ACC 116 - Managerial Accounting....3
ACC 150 - Legal Environment of Business....3
ECO 121 - Macroeconomics....3
ECO 122 - Microeconomics....3
MAT 130 - Probability and Statistics....4
MAT 140 - Finite Mathematics for Business....3
MAT 142 - Calculus for Business....3
MGT 111 - Principles of Management....3
MKT 111 - Principles of Marketing....3

Electives

Elective - Elective....6

TOTAL PROGRAM CREDITS: 60

CERTIFIED BOOKKEEPER (CERTIFICATE OF COMPLETION)

Purpose

This certificate of completion is designed to prepare the graduate for a bookkeeping position in a small to medium sized firm. Career students, requiring more in-depth accounting skills, will gain solid technical knowledge and practical skills thereby substantially improving on-the-job performance and providing the skills for higher-level jobs. All of the courses can be applied toward an Associate Degree in Accounting. Additionally, students completing the Certified Bookkeeper Certificate program will be prepared to pass a national certification exam to obtain a Certified Bookkeeper (CB) designation. Students will also be prepared to pass the national certification exam to obtain the American Payroll Association's (APA) Fundamental Payroll Certification (FPC) designation.

Program Outcomes

- Create financial statements, performing each step in double-entry accounting;
- Apply concepts of internal control to business processes;
- Prepare all calculations, entries and reports for a complete payroll cycle.

Program Curriculum

ACC 110 - Business Mathematics....3
ACC 115 - Financial Accounting....4
ACC 117 - Payroll Accounting....3
ACC 118 - Professional Bookkeeping....3

ENTREPRENEURSHIP (CERTIFICATE OF COMPLETION)

Purpose

Entrepreneurship Certificate Program is designed to prepare students to launch and/or grow a successful business, small or large, profit or nonprofit. Linking theory and practice, students will acquire the knowledge and skills that are essential to managing a viable business.

Program Outcomes

- Assess and identify viable business opportunities to pursue;
- Demonstrate proficiency in fundamental accounting procedures for new or existing entrepreneurial ventures;
- Develop a practical Business Plan with realistic implementation capabilities;
- Demonstrate the proper soft skills of a business person, including the ability to communicate effectively, efficiently and professionally in written and/or oral presentations.

Program Curriculum

ACC 105 - Survey of Accounting....3
ENG 117 - Writing for Business and Industry....3
ETP 110 - Entrepreneurial Essentials....3
ETP 113 - Entrepreneurial Business Plan....3

TOTAL PROGRAM CREDITS: 12

MANAGEMENT (A.A.S)

Purpose

The Management AAS degree program is designed to provide students with the foundation needed in order to develop competencies in managerial decision-making. Students are presented with a broad-based knowledge of the functional areas of management. Coursework focuses on theory and application in order to foster the essential skills that are needed to succeed in today's global business environment. Students will develop a keen understanding of business practices as well as learn how to become a more effective decision-maker, manager, and leader. Completing this degree program prepares graduates for the workforce in a wide range of careers in both the private and public sectors.

Program Outcomes

- Apply managerial theory and practices to the key functional areas within an organization in today's global business environment;
- Examine the social, legal and ethical principles that guide appropriate and responsible managerial decision-making;
- Apply critical-thinking and analytical acumen in order to determine appropriate actions;
- Exhibit professional and proficient communication skills: verbal, written and interpersonal.

We've created this program for both new students and those already working in business. Upon graduation, you can transfer to a four-year institution to continue your education or pursue new employment opportunities. Management AAS classes are offered on campus as well as online.

Program Curriculum

General Education Requirements

ACC 110 - Business Math....3
ECO 110 - Elements of Economics....3
ENG 101 - English Composition I....3
ENG 117 - Writing for Business and Industry....3
OFM 101 - Business Software Essentials....3
Elective - **Oral Communication**....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....3-4

Major Requirements

ACC 105 - Survey of Accounting....3
ACC 150 - Legal Environment of Business....3
MGT 111 - Principles of Management....3
MGT 210 - Ethical Decision-Making in Business....3
MGT 295 - Business Management Capstone....3
MGT Concentration - Management Concentration Courses....12
MKT 111 - Principles of Marketing....3
PSY 137 - Introduction to Organizational Psychology....3
Elective - Elective....3

TOTAL PROGRAM CREDITS: 60

MANAGEMENT (CERTIFICATE)

Purpose

The Management Certificate program is designed to prepare students for employment in an entry level management position and/or enhance career opportunities. These positions include assistant office manager, junior department manager, management trainee, and other management opportunities. All of the courses can be applied towards an associate's degree in Management.

Program Outcomes

- Exhibit professional and proficient communication skills: verbal, written and interpersonal;
- Apply fundamental knowledge of management concepts to function effectively in a global business environment;
- Apply learned management skills required to continue career or educational pursuits.

Should you decide to pursue an associate's degree in Management, your certificate credits can be applied to our Management AAS program. Our Management Certificate is a smart, cost-effective way to begin your management career.

Program Curriculum

ACC 105, ENG 117, or MKT 111 - Survey of Accounting, or Writing for Business and Industry, or Principles of Marketing....3
ACC 150 - Legal Environment of Business....3
ECO 110 - Elements of Economics....3
Elective - Open Elective....3
ETP or MGT Elective - Entrepreneurship or Management Elective....3
MGT 111 - Principles of Management....3
MGT 131 - Human Resource Management....3
MGT 210 - Ethical Decision-Making in Business....3
MGT 221 - Supervision....3
MGTor MKT Elective - Management or Marketing Elective....3

TOTAL PROGRAM CREDITS: 30

MANAGEMENT: MARKETING CONCENTRATION (A.A.S.)

Purpose

The Management AAS degree program is designed to provide students with the foundation needed in order to develop competencies in managerial decision-making. Students are presented with a broad-based knowledge of the functional areas of management. Coursework focuses on theory and application in order to foster the essential skills that are needed to succeed in today's global business environment. Students will develop a

keen understanding of business practices as well as learn how to become a more effective decision-maker, manager, and leader. Completing this degree program prepares graduates for the workforce in a wide range of careers in both the private and public sectors.

Program Outcomes

- Apply managerial theory and practices to the key functional areas within an organization in today's global business environment;
- Examine the social, legal and ethical principles that guide appropriate and responsible managerial decision-making;
- Apply critical-thinking and analytical acumen in order to determine appropriate actions;
- Exhibit professional and proficient communication skills: verbal, written and interpersonal.

We've created this program for both new students and those already employed in business. After graduation, you can transfer to a four-year institution to continue your education or pursue new employment opportunities. Management AAS classes are offered on campus as well as online.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 117 - Writing for Business and Industry....3
OFM 101 - Business Software Essentials....3
Elective - **Oral Communication**....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....4
ACC 110 - Business Mathematics....3
ECO 110 - Elements of Economics....3

Major Requirements

ACC 105 - Survey of Accounting....3
ACC 150 - Legal Environment of Business....3
MGT 111 - Principles of Management....3
MGT 210 - Ethical Decision-Making in Business....3
MGT 295 - Business Management Capstone....3
MKT 111 - Principles of Marketing....3
PSY 137 - Introduction to Organizational Psychology....3
MKT Concentration - Marketing Concentration Courses....12
Elective - Elective....3

TOTAL PROGRAM CREDITS: 60

MANAGEMENT: OFFICE MANAGEMENT CONCENTRATION (A.A.S.)

Purpose

The Management AAS degree program is designed to provide students with the foundation needed in order to develop competencies in managerial decision-making. Students are presented with a broad-based knowledge of the functional areas of management. Coursework focuses on theory and application in order to foster the essential skills that are needed to succeed in today's global business environment. Students will develop a keen understanding of business practices as well as learn how to become a more effective decision-maker, manager, and leader. Completing this degree program prepares graduates for the workforce in a wide range of careers in both the private and public sectors.

Program Outcomes

- Apply managerial theory and practices to the key functional areas within an organization in today's global business environment;
- Examine the social, legal and ethical principles that guide appropriate and responsible managerial decision-making;
- Apply critical-thinking and analytical acumen in order to determine appropriate actions;
- Exhibit professional and proficient communication skills: verbal, written and interpersonal.

We've created this program for both new students and those already employed in business. Upon graduation, you can transfer to a four-year institution to continue your education or pursue new employment opportunities. We have program-to-program transfer agreements with such schools as Temple University, Southern New Hampshire University and Cabrini. Management AAS classes are offered on campus as well as online.

Program Curriculum

General Education Requirements

ACC 110 - Business Math....3
ECO 110 - Elements of Economics....3
ENG 101 - English Composition I....3
ENG 117 - Writing for Business and Industry....3
OFM 101 - Business Software Essentials....3
Elective - **Oral Communication**....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....4

Major Requirements

ACC 105 - Survey of Accounting....3
ACC 150 - Legal Environment of Business....3
MGT 111 - Principles of Management....3
MGT 210 - Ethical Decision-Making in Business....3
MGT 295 - Business Management Capstone....3
MKT 111 - Principles of Marketing....3
OFM Concentration Courses - OFM Concentration Courses....12
PSY 137 - Introduction to Organizational Psychology....3
Elective - Elective....3

TOTAL PROGRAM CREDITS: 60

MARKETING (CERTIFICATE)

Purpose

The Marketing Certificate program is designed to prepare the student for employment in an entry level marketing position and/or enhance career opportunities. These areas include sales, customer service, advertising and promotion, public relations, purchasing, and distribution. All of the courses can be applied toward an associate's degree in Management.

Program Outcomes

- Exhibit professional and proficient communication skills: verbal, written and interpersonal;
- Apply fundamental knowledge of marketing concepts to function effectively in a global business environment;
- Apply learned marketing skills required to continue career or educational pursuits.

We've created this program for both new students and those already employed in business. All of the Marketing Certificate coursework can be applied toward an associate's degree in Management.

Program Curriculum

ACC 105, ENG 117, or MGT 111 - Survey of Accounting, Writing for Business and Industry, or Principles of Management..... 3
ACC 150 - Legal Environment of Business.....3
CMS 125 - Introduction to Public Relations..... 3
Elective - Open Elective.....3
MGT 210 - Ethical Decision Making in Business..... 3
MKT 111 - Principles of Marketing..... 3
MKT 121 - Personal Sales Management..... 3
MKT 131 - Advertising and Promotion.....3
MKT 211 - Digital Marketing.....3
MGT, MKT, or ETP Elective - Management, Marketing, or Entrepreneurship Elective..... 3

TOTAL PROGRAM CREDITS: 30

OFFICE MANAGEMENT (CERTIFICATE)

Purpose

The Office Management Certificate program is designed to prepare the graduate for an administrative support position in an office environment as an administrative assistant, receptionist, customer service representative, front desk coordinator, or software trainer. All of the courses can be applied toward an associate's degree in Management.

Program Outcomes

- Apply managerial theory and office procedures for diverse business environments;
- Demonstrate current computer and software skills to accomplish assigned tasks with efficiency and effectiveness;
- Utilize appropriate skills and techniques to organize, prioritize and complete tasks, and produce associated documents in a professional office environment.

Upon completing the Office Management Certificate program, you may take on such office roles as administrative assistant, receptionist, front desk coordinator or customer service representative. Should you want to continue your education, all of your courses can be applied toward an Associate degree in Management.

Program Curriculum

ACC 105, ENG 117, or MKT 111 - Survey of Accounting, or Writing for Business and Industry, or Principles of Marketing..... 3
ACC 150 - Legal Environment of Business.....3
MGT 111 - Principles of Management.....3
MGT 210 - Ethical Decision Making in Business..... 3
OFM 101 - Business Software Essentials.....3
OFM 110 - Microsoft Word Applications.....3
OFM 243 - Integrated Software Applications..... 3
OFM or MGT Elective - Office Management or Management Elective.....3
Elective - Open Elective.....3
OFM 161 - Modern Office Management..... 3

TOTAL PROGRAM CREDITS: 30

ORGANIZATIONAL LEADERSHIP MANAGEMENT (CERTIFICATE)

Purpose

The Organizational Leadership Certificate is designed to provide the student with essential tools needed to develop leadership skills necessary in today's global business environment. Emphasis will be placed on developing a working knowledge and understanding of improving work environments in organizations. Through experiential learning, students will gain knowledge of performance evaluation, communication, conflict resolution, achievement and leadership. All of the courses can be applied toward an Associate Degree in Management.

Program Outcomes

- Recommend solutions to leadership challenges based on a social, legal, ethical and economic foundation;
- Demonstrate ability to appropriately address conflict resolution challenges and negotiate effective solutions;
- Evaluate information to guide decision-making for enhanced organizational performance;
- Analyze the nature of group interaction and how it relates to effective participation and leadership in organizations.

Upon successfully completing the program, you will receive an Organizational Leadership Certificate. All your certificate coursework can be applied toward an Associate degree in Management.

Program Curriculum

ACC 150 - Legal Environment of Business.....3
CMS 230 - Communication in Organizations..... 3
Elective - Open Elective.....3
ENG 117 - Writing for Business and Industry..... 3
MGT 111 - Principles of Management.....3
MGT 112 - Principles of Leadership.....3
MGT 113 - Conflict Resolution and Negotiation..... 3
MGT 114 - Strategic Analytics for Leaders..... 3
MGT 210 - Ethical Decision-Making in Business..... 3
PSY 137 - Introduction to Organizational Psychology.....3

TOTAL PROGRAM CREDITS: 30

PAYROLL SPECIALIST (CERTIFICATE OF COMPLETION)

Purpose

This certificate of completion is designed to prepare the graduate for a payroll position in a small to medium sized firm. Career students, requiring more in-depth accounting skills, will gain solid technical knowledge and practical skills thereby substantially improving on-the-job performance and providing the skills for higher-level jobs. All of the courses can be applied toward an Associate Degree in Accounting. Additionally, students completing the Payroll Specialist Certificate program will be prepared to pass the national certification exam to obtain the American Payroll Association's (APA) Fundamental Payroll Certification (FPC) designation.

Program Outcomes

- Create financial statements, performing each step in double-entry accounting
- Prepare all calculations, entries and reports for a complete payroll cycle
- Prepare quarterly and year-end payroll tax returns

When you receive your Certificate of Completion, you're ready to take the American Payroll Association's Fundamental Payroll Certification exam. If you are interested in further studies, you can apply your certificate credits toward:

- An associate's degree in Accounting
- An Accounting Certificate
- **The Certified Bookkeeper with Quickbooks Certificate of Completion**

Program Curriculum

ACC 110 - Business Mathematics.....3
ACC 115 - Financial Accounting..... 4
ACC 117 - Payroll Accounting.....3

TOTAL PROGRAM CREDITS: 10

PROFESSIONAL LEADERSHIP (CERTIFICATE OF COMPLETION)

Purpose

The Professional Leadership Certificate of Completion is designed to provide the student with essential tools needed to develop leadership skills necessary in today's global business environment. All of the courses can be applied toward an Associate Degree in Management.

Program Outcomes

- Recommend solutions to leadership challenges based on a social, legal, ethical and economic foundation;
- Demonstrate ability to appropriately address conflict resolution challenges and negotiate effective solutions;
- Evaluate information to guide decision-making for enhanced organizational performance.

Along with increasing your leadership skills, you will earn nine credits in the certificate of completion program. These credits can be applied toward an Associate degree in Management at Montco.

Program Curriculum

MGT 112 - Principles of Leadership.....3
MGT 113 - Conflict Resolution and Negotiation.....3
MGT 114 - Strategic Analytics for Leaders.....3

TOTAL PROGRAM CREDITS: 9

CREATIVE ARTS

FINE ART (A.F.A.)

Purpose

The Art program is designed for students planning to transfer to baccalaureate programs or professional schools preparing students for a B.F.A. degree. The curriculum parallels the foundation program of art schools or art programs at a four-year college. Students develop their skills while preparing a comprehensive portfolio. The program allows students to continue studies leading to careers in graphic communications, art education, and/or the fine arts.

Program Outcomes

- Describe visual concepts and express them using appropriate vocabulary in written reviews and oral presentations;
- Examine and compare culturally diverse and historically significant examples of art;
- Analyze and evaluate works of art using descriptive analysis and observation skills to critique, argue, and defend one's work and works created by others;
- Solve problems in the creation of visual products employing the skills of problem identification, research and information gathering, analysis, generation of alternative solutions, and evaluating outcomes;
- Describe and respond to audiences and contexts that artistic solutions must address including recognizing the physical, cognitive, cultural, social, and individual factors that shape aesthetic decisions;
- Create and develop visual form incorporating principles of visual organization and composition, visual hierarchy, symbolic representation, aesthetics, and the construction of meaningful pieces;
- Create a portfolio of work applying the knowledge, techniques, and perceptual skills addressed in the studio.

Depending upon your interest, you can take courses in animation, ceramics, drawing, fashion design, graphic design, illustration, painting, photography, printmaking or sculpture. You can also choose classes that easily transfer to a four-year college. Our beautiful art galleries at both the Blue Bell and Pottstown Campuses feature exhibitions of students and artists of national renown.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
ENG 102 - English Composition II.....3
Elective - Oral Communication.....3
MAT 106 - Mathematics Applications.....3
Elective - Cultural Awareness and Diversity..... 3
Elective - Scientific Reasoning.....4

Major Requirements

ART 101 - Art History: Cave Painting to Pre-Renaissance..... 3
ART 102 - Art History: Pre-Renaissance to Impressionism.....3
ART 103, ART 104, ART 107, ART 108 or ART 109 - Art History: Modern Art, History of Graphic Design, Non-Western Art, History of Photography or History of Fashion Design.....3

ART 111 - Drawing I....3
ART 112 - Drawing II....3
ART 121 - Painting I....3
ART 130 - 2-D Design Principles....3
ART 131 - Color TheoryA....3
ART 138 or ART 180 - Digital Art I or Introduction to Visual Communication....3
ART 140 - 3-D Design Principles....3
Electives - Fine Art Studio....15

TOTAL PROGRAM CREDITS: 64

MASS MEDIA PRODUCTION (A.A.)

Purpose

Graduates will be prepared to pursue continued study beyond the two-year AA degree or obtain entry-level positions in mass media communication. Examples of career paths in mass media communication include producers, writers, videographers, broadcast journalists, editors, recording engineers, film directors, reporters, web content managers, social media strategists, publicists, directors of communications, corporate Communication managers, ad agency executives, public relations managers, information managers and press secretaries. There are two concentrations: Media Studies and Media Production.

Program Outcomes

- Apply effectively the essential communication skills, including reading, writing, speaking, listening and visual image creation;
- Explain the history, theory and practical applications of mass communication;
- Apply professional, legal, and ethical principles of communication to diverse audiences and contexts;
- Distinguish the various tasks and ongoing development requirements performed by communication professionals in a rapidly changing environment;
- Apply rhetorical analysis and media literacy skills to advance civic responsibility and an understanding of communication in a free society.

You will work independently and in small groups in the field and in our digital editing labs. You'll also work closely with experienced faculty to create professional content. After graduating, you may transfer to a four-year institution and continue your studies in television, radio, recording, film and emerging media. You may also enter the marketplace as a news writer, production assistant, camera operator and entry-level reporter.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
CMS 120 - Public Speaking....3
MAT 106, MAT 130 or MAT 131 - Mathematics Applications, Probability and Statistics or Introduction to Statistics I....3 - 4
PSY 101 - Introduction to Psychology....3
Scientific Reasoning - Scientific Reasoning Elective....4
Elective - Literature, Music, Dance or Theatre course....3
Cultural Awareness and Diversity - Cultural Awareness and Diversity Elective....3
Elective - ART 101, ART 102, ART 103, ART 104, ART 138, ART 151, ART 155 or ART 180....3

Major Requirements

MSP 107 - Introduction to Production and Literacy....3
MSP 111 - Mass Media and Society....3
MSP 125 or MSP 126 - Introduction to Broadcast Writing or Introduction to Scriptwriting....3
MSP 170 - Media Production Workshop I....1
MSP 171 - Media Production Workshop II....1
MSP 200 - Ethics, Responsibility, Mass Media and the Law....3
MSP 270 - Media Production Workshop III....1
MSP 291 - Mass Media Capstone....3
MSP 278 or MSP 279 - Video Production II or Digital Filmmaking....3
SRT 104 - Sound Recording Technology....3

Electives

Elective - Electives....9

TOTAL PROGRAM CREDITS: 60-61

MEDIA STUDIES (A.A.)

Purpose

Graduates will be prepared to pursue continued study beyond the two-year AA degree or obtain entry-level positions in mass media communication. Examples of career paths in mass media communication include producers, writers, videographers, broadcast journalists, editors, recording engineers, film directors, reporters, web content managers, social media strategists, publicists, directors of communications, corporate Communication managers, ad agency executives, public relations managers, information managers and press secretaries. There are two concentrations: Media Studies and Media Production.

Program Outcomes

- Apply effectively the essential communication skills, including reading, writing, speaking, listening and visual image creation;
- Explain the history, theory and practical applications of mass communication;
- Apply professional, legal, and ethical principles of communication to diverse audiences and contexts;
- Distinguish the various tasks and ongoing development requirements performed by communication professionals in a rapidly changing environment;
- Apply rhetorical analysis and media literacy skills to advance civic responsibility and an understanding of communication in a free society.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
CMS 120 - Public Speaking....3
MAT 106, MAT 130 or MAT 131 - Mathematics Applications, Probability and Statistics or Introduction to Statistics I....3 - 4
PSY 101 - Introduction to Psychology....3
Scientific Reasoning - Scientific Reasoning Elective....4
Cultural Awareness and Diversity - Cultural Awareness and Diversity Elective....3
Elective - Any Literature, Music, Dance or Theatre Elective....3
Elective - ART 101, ART 102, ART 103, ART 104, ART 138, ART 151, ART 155 or ART 180....3

Major Requirements
MSP 111 - Mass Media and Society....3
MSP 112 - Media Industries....3
MSP 125, MSP 126 or MSP 230 - Introduction to Writing for Broadcast News, Screenwriting I, or The Movies: Meanings and Methods....3
MSP 200 - Ethics, Responsibility, Mass Media and the Law....3
MSP 235 - Current Issues in Mass Media....3
MSP 291 - Mass Media Capstone....3
MSP Elective - MSP 210, MSP 211, MSP 230 or THA 205....3

Electives
Electives - Electives....12

TOTAL PROGRAM CREDITS: 61-62

MUSIC (A.A.)

Purpose
The Music curriculum is designed for students planning to transfer to a baccalaureate program in Music. The curriculum provides both a liberal arts (core studies) background and music coursework comparable to the first two years at a four year institution.

Program Outcomes
- Demonstrate proficiency at the intermediate level on either the guitar or the piano;
- Demonstrate an understanding of the basic principles of tonal harmony;
- Demonstrate functional proficiency in Aural Theory (ear training);
- Describe the musical and cultural characteristics of at least two periods of music history;
- Demonstrate proper use of basic hardware and software tools of music technology.

Opportunities for private lessons and access to private, state-of-the-art recording studios also exist.

Our graduates generally transfer to such four-year schools as Temple University, West Chester University and The University of the Arts. Many go on to become performers or music educators. Note that, to graduate, students must maintain a "C" or above in all MUS course

Program Curriculum
General Education Requirements
ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
Elective - Cultural Awareness and Diversity....3
Elective - Quantitative Reasoning(Students may not take MAT 103A or ACC 110 to fulfill this goal)....3 - 4
Elective - **Oral Communication**....3
Elective - Scientific Reasoning....4
Elective - Aesthetic Sensibility (Students may not take a MUS course to fulfill this elective)....3

Major Requirements
Applied Electives - Guitar Class, Piano Class, Ensemble, or Private Lessons....2
Ensemble - Choir, Chamber Choir, Jazz Lab Band, Jazz Performance Ensemble, Wind Ensemble, Strings....1
Ensemble - Choir, Chamber Choir, Jazz Lab Band, Jazz Performance Ensemble, Wind Ensemble, Strings....1
Ensemble - Choir, Chamber Choir, Jazz Lab Band, Jazz Performance Ensemble, Wind Ensemble, Strings....1
Ensemble - Choir, Chamber Choir, Jazz Lab Band, Jazz Performance Ensemble, Wind Ensemble, Strings....1
MUS 140 - Introduction to Digital Music Technology....3
MUS 150 or MUS 170 - Guitar Class I or Piano Class I....1
MUS 151 or MUS 171 - Guitar Class II or Piano Class II....1
MUS 208 or MUS 209 - Music History for Majors....6
MUS 221 - Music Theory I....3
MUS 222 - Music Theory II....3
MUS 231 - Aural Theory I....3
MUS 232 - Aural Theory II....3
MUS Elective - Students may not use MUS 110 or MUS 120....3

Electives
Electives - Electives....6

TOTAL PROGRAM CREDITS: 60-61

SOUND RECORDING AND MUSIC TECHNOLOGY (A.A.S.)

Purpose
The Sound Recording and Music Technology A.A.S. curriculum is designed for students planning to obtain a two-year degree in Sound Recording Technology, Music Production and Music Technology. The degree prepares students to obtain the following entry-level positions: sound technician, audio engineer, recording studio technician, sound engineer for animation and film, audio producer, music producer, digital audio editor, production manager, production assistant, theater sound designer, and multimedia developer for which both musical and technological knowledge are essential. The A.A.S. curriculum offers a comprehensive Background in sound recording, music production, and music technology expertise comparable to the first two years at a media conservatory.

Program Outcomes
- Integrate knowledge and theory of recording industry, sound recording and music technology into productions;
- Use professional sound recording techniques and tools to record, engineer and edit music productions as well as conceive, plan, write, record and edit pieces, projects and production packages;
- Create a professional portfolio including résumé, reel, personal statement and other promotional materials in both print and online;
- Apply knowledge of guitar or piano, tonal harmony, and aural theory to a performance and through productions;
- Apply practical knowledge of terminology, process, procedures and use of current technology to entry-level employment in the recording industry and sound recording field.

Program Curriculum
General Education Requirements
ENG 101 - English Composition I....3
Quantitative Reasoning - Quantitative Reasoning Elective....3 - 4
Scientific Reasoning - Scientific Reasoning Elective....4
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
Cultural Awareness and Diversity - Cultural Awareness and Diversity Elective....3

Major Requirements
Directed Elective - choose one - Any course from the following disciplines: MGT, MKT, MSP, MUS, SRT, and THA. The courses(s) selected by total 3 credits..... 3
SRT 214 - Evolution of Sound Recording..... 3
MUS 110 - Music Appreciation..... 3
MUS 140 - Introduction to Digital Music Technology..... 3
MUS 141 - Intermediate Digital Music Technology..... 3
MUS 150 or MUS 170 - Guitar Class I or Piano Class I..... 1
MUS 240 - The Art and Business of Songwriting..... 3
MUS 241 - The Business of Music..... 3
SRT 104 - Introduction to Sound Recording Technology..... 3
SRT 130 or SRT 131 - SRT Software Workshop I or Live Sound Recording and Reinforcement Workshop I..... 1
SRT 159 - Introduction to Music Production..... 3
SRT 250 - Sound Recording Technology I..... 3
SRT 256 - Sound Recording Technology II..... 3
SRT 259 - Music Production..... 3
SRT 297 - Sound Recording and Music Technology Internship..... 2
SRT 290 - Sound Recording and Music Technology Capstone..... 1
SRT or MUS Elective - SRT or MUS Elective - MUS 120 or any other SRT or MUS course not already required for the program..... 3
SRT 230 or SRT 231 - SRT Software Workshop II or Live Sound Recording and Reinforcement II..... 1

TOTAL PROGRAM CREDITS: 60-62

THEATRE ARTS (A.A.)

Purpose
The Theatre Arts curriculum is designed for students planning to transfer to a baccalaureate program in Theater or related studies. The curriculum provides both a liberal arts (core studies) background and theater arts coursework comparable to the first two years at a four-year institution.

Program Outcomes
- Demonstrate an understanding of the personal, social and aesthetic value of the art of theater;
- Demonstrate knowledge of basic, individual and ensemble acting skill;
- Analyze theater history and literature using research, critical thinking skills and performing arts vocabulary;
- Apply skills necessary for the planning, production, direction and evaluation a theatrical performance;
- Distinguish the roles of actor, director, playwright, designers, producers and other professionals involved in creating theater;
- Comprehend the engagement between artists and audience in the act of theater.

Program Curriculum
General Education Requirements
ENG 101 - English Composition I..... 3
ENG 102 - English Composition II..... 3
Elective - English Literature: ENG 235, ENG 236, ENG 237 or ENG 275..... 3
Elective - HIS 101, HIS 102 or HIS 205..... 3
Cultural Awareness and Diversity - Cultural Awareness and Diversity Elective..... 3
Technological Fluency - Technological Fluency Elective..... 3
Quantitative Reasoning - Quantitative Reasoning Elective (ACC-110 and MAT 103 may not be used to fulfill this elective)..... 3
Scientific Reasoning - Scientific Reasoning Elective..... 4
CMS 120 - Public Speaking..... 3
Elective - Any DAN or ESW course..... 2 - 3
Elective - Any ART, MSP or MUS course..... 3
Elective - Open Elective..... 3

Major Requirements
THA 105 - Acting I..... 3
THA 106 - Acting II: Scene Study..... 3
THA 114 - Theatre Appreciation..... 3
THA 150 - Theatre Production Workshop I: Introduction to Stage Craft..... 3
THA 151 - Theatre Production Workshop II: Production Practicum..... 3
THA 203 - Theatre Production Workshop III: Theatre Production Design..... 3
THA Electives - Any THA Courses..... 6

TOTAL PROGRAM CREDITS: 60-61

CULINARY & HOSPITALITY

BAKING AND PASTRY (CERTIFICATE)

Purpose
The Baking and Pastry Arts Certificate program prepares students for entry-level positions in the baking and pastry industry. Through hands-on instruction, students will gain the fundamental baking techniques and skills needed to thrive in this field.

Program Outcomes
- Demonstrate core concepts in baking theory and execute fundamental techniques to a variety of classical and contemporary baked goods, products, and desserts;
- Apply professional communication and teamwork skills while exhibiting effective decision-making skills with respect to individuals and diverse team settings;
- Apply appropriate problem-solving techniques relating to professional, ethical, and profitability in a business environment;
- Apply appropriate safety and sanitation principles to products, tools, and equipment within the foodservice industry

Program Curriculum
Semester 1
CUL 105 - Safety and Sanitation..... 2
CUL 108 - Foodservice Fundamentals..... 3
BPA 120 - Introduction to Baking and Pastry..... 3

Semester 2
BPA 220 - Advanced Baking and Pastry..... 3
BPA 124 - Introduction to Cakes..... 3
BPA 131 - Bread and Rolls..... 3

TOTAL PROGRAM CREDITS: 17

BAKING AND PASTRY ARTS (A.A.S.)

Purpose

Our program prepares you for entry- to mid-level positions in the baking and pastry industry.

Program Outcomes

- Demonstrate core concepts in baking theory and execute fundamental techniques to a variety of classical and contemporary baked goods, products, and desserts;
- Demonstrate cost control measures to track goods and services, and to evaluate revenue and expenses and their effect on profitability;
- Apply professional communication and teamwork skills while exhibiting effective decision-making skills with respect to individuals and diverse team settings;
- Apply appropriate problem-solving techniques relating to professional, ethical, and profitability in a business environment;
- Apply appropriate safety and sanitation principles to products, tools, and equipment within the foodservice industry

Program Curriculum

General Education Requirements

ACC 110 or Elective - Business Mathematics or Quantitative Reasoning....3-4
CMS 110 or CMS 120 or CMS 230 - Speech Communication or Public Speaking or Communication in Organizations....3
ENG 101 - English Composition I....3
ESW 206 - Basic Nutrition....3
ESW 207/GEO-207 or Elective - Food and Culture or Cultural Awareness and Diversity....3
OFM 101 or Elective - Business Software Essentials or Technological Fluency....3
Elective - Aesthetic Sensibility....3
BIO 117/CUL-117 or Elective - Introduction to Food Science or Scientific Reasoning....4

Major Requirements

BPA 120 - Introduction to Baking and Pastry....3
BPA 124 - Introduction to Cakes....3
BPA 131 - Bread and Rolls....3
BPA 220 - Advanced Baking and Pastry....3
BPA 233 - Chocolates and Confections....3
BPA 253 - Plated Desserts and Modern Trends....3
BPA 254 - Tiered Cakes and Sugar Artistry....3
BPA 263 - Bakery Production....3
CUL 105 - Safety and Sanitation....2
CUL 108 - Foodservice Fundamentals....3
CUL 150 - Menu and Cost Control....3
CUL 170 - Management and Supervision....3
BPA 298 - Baking and Pastry Internship....3

TOTAL PROGRAM CREDITS: 63

CULINARY ARTS (A.A.S.)

Purpose

The Culinary Arts program prepares students for a wide variety of entry level to mid-level positions in the food service industry. It combines a foundation of culinary and management skills the industry demands, in addition to a curriculum that incorporates opportunities to learn and work in a student-operated restaurant. The program introduces students to the basic philosophies of the food service industry and offers the student a well-rounded academic experience that prepares the student for a successful career as a culinary professional.

Program Outcomes

- Demonstrate core concepts in culinary theory and excute fundamental techniques to a variety of classical and contemporary dishes in global cuisines;
- Demonstrate cost control measures to track goods and services, and to evalute revenue and expenses and their effect on profitability;
- Apply professional communication and teamwork skills while exhibiting effective decision-making skills with respect to individuals and diverse team settings;
- Apply appropriate problem-solving techniques relating to professional, ethical, and profitability in a business environment;
- Apply appropriate safety and sanitation principles to products, tools, and equipment within the foodservice industry

Program Curriculum

General Education Requirements

ACC 110 or Elective - Business Mathematics or Quantitative Reasoning Elective....3
BIO 117 or Elective - Introduction to Food Science or Scientific Reasoning....4
CMS 110 or CMS 120 or CMS 230 - Speech Communication or Public Speaking or Communication in Organizations....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....3-4
ENG 101 - English Composition I....3
ESW 206 - Basic Nutrition....3
ESW 207/GEO-207 or Elective - Food and Cultureor Cultural Awareness and Diversity....3
OFM 101 or Elective - Business Software Essentials or Technological Fluency....3

Major Requirements

CUL 105 - Safety and Sanitation....2
CUL 108 - Foodservice Fundamentals....3
CUL 120 - Introduction to Culinary Techniques....3
CUL 125 - American Regional....3
CUL 150 - Menu and Cost Control....3
CUL 160 - Culinary Baking....3
CUL 170 - Management and Supervision....3
CUL 221 - Garde Manger and Buffet Design....3
CUL 250 - European Cuisines....3
CUL 260 - Global Cuisines....3
CUL 272 - Front of the House Operations....3
CUL 282 - Restaurant Operations....3
CUL 298 - Culinary Internship....3

TOTAL PROGRAM CREDITS: 63

CULINARY ARTS (CERTIFICATE)

Purpose

The Culinary Arts certificate program prepares students for entry-level positions in the foodservice industry. Through hands-on instruction, students will gain the fundamental culinary techniques and skills needed to thrive in this field.

Program Outcomes

- Demonstrate core concepts in culinary theory and execute fundamental techniques to a variety of classical and contemporary dishes in global cuisines;
- Apply professional communication and teamwork skills while exhibiting effective decision-making skills with respect to individuals and diverse team settings;
- Apply appropriate problem-solving techniques relating to professional, ethical, and profitability in a business environment;
- Personally demonstrate appropriate safety and sanitation practices, including safe food service equipment operation, as it relates to the hospitality industry

Program Curriculum

Semester 1

CUL 105 - Safety and Sanitation..... 2
CUL 108 - Foodservice Fundamentals..... 3
CUL 120 - Introduction to Culinary Techniques..... 3

Semester 2

CUL 250 - European Cuisines..... 3
CUL 221 - Garde Manger and Buffet Design..... 3
CUL 260 - Global Cuisines..... 3

TOTAL PROGRAM CREDITS: 17

TOURISM AND HOSPITALITY MANAGEMENT (A.A.S.)

Purpose

The two-year tourism and hospitality management program prepares students for a wide variety of entry-level to mid-level leadership positions in the tourism and hospitality industry. The program introduces students to the basic philosophies of the tourism and hospitality industry and offers the student a well-rounded academic experience that prepares the student for a successful career as a tourism and hospitality professional. Upon completion of the program, graduates receive an Associate of Applied Science Degree.

Program Outcomes

- Demonstrate the concepts and skills necessary to achieve guest service excellence for entry to mid-level leadership positions in convention and vistors bureaus, destination management companies, restaurants, parks, casinos, hotels and resorts;
- Use technology and sustainability practices to achieve operational efficiency in the tourism industry;
- Discuss the business of tourism and its impact locally, regionally, nationally, and globally;
- Connect ethical, legal, and inclusive leadership standards accepted in the tourism and hospitality industry;
- Exhibit social intelligence, innovation, and critical decision-making practices for the tourism and hospitality industry;
- Develop a professional career portfolio.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I..... 3
ENG 102 - English Composition II..... 3
ACC 110 or MAT 106 - Business Mathematics or Mathematics Applications..... 3
CMS 110 or CMS 120 - Speech Communication or Public Speaking..... 3
PSY 137 - Introduction to Organizational Psychology..... 3
Elective - Aesthetic Sensibility..... 3
Elective - Scientific Reasoning..... 3 - 4
Elective - Technological Fluency..... 3

Major Requirements

HOS 111 - Introduction to Hospitality Management..... 3
CUL 114 / HOS 114 - Food and Beverage Operations..... 3
HOS 160 - Meetings, Conventions, and Conference Management..... 3
HOS 170 - Tourism and Hospitality Sales..... 3
HOS 210 - Sustainable Hospitality and Tourism Management..... 3
HOS 222 - Nature, Sport, and Destination Tourism Management..... 3
HOS 230 - Entrepreneurship, Product, and Concept Development in the Tourism Industry..... 3
HOS 251 - Tourism, Hotel, and Casino Management..... 3
HOS 260 - Legal Issues in Tourism and Hospitality..... 3
HOS 270 - Innovation and Leadership in Tourism Management..... 3
HOS 297 - Cooperative Internship in Tourism Management..... 3
Elective - Open Elective..... 3

TOTAL PROGRAM CREDITS: 60-61

EDUCATION

EDUCATION IN THE EARLY YEARS (A.A.)

Education in the Early Years: Birth through Fourth Grade is a program to prepare graduates for professional opportunities in early childhood education as teachers in child care settings, as professionals in family child care facilities, or as teachers in corporate child care. The program will also prepare graduates who want to pursue Bachelors' degrees for transfer to four-year colleges. Students who transfer with a grade point of average of 3.0 and pass the Preservice Academic Performance Assessment (PAPA) exams may be eligible to be admitted to an Education Program at a four- year institution, which could lead to PA certification to teach pre-kindergarten through fourth grade. The courses in this program include both general education courses as well as professional education courses related to the development and teaching of children through grade four. In the last semester of the program, students will student teach in an early childhood environment with an experienced teacher under the supervision of College faculty.

Program Outcomes

- Identify typical and atypical milestones in child development;
- Assess the appropriateness of early literacy opportunities in early childhood environments;
- Create curricula and environments that are cognitively, physically and social-emotionally appropriate for children's ages and needs;
- Communicate effectively with young children, their parents, and peers;
- Design activities that promote positive school-family-community relationships;
- Collaborate with teachers to create learning opportunities that meet the needs of all students.

Accreditation

The Education in the Early Years: Birth through Fourth Grade degree program at Montgomery County Community College has earned Accreditation by the Commission on Early Childhood Higher Education

Programs of the National Association for the Education of Young Children, 1401 H St. NW, Suite 600, Washington, DC 20005. (800) 424-2460 ext. 8007. The accreditation term runs from March 2018 until March 2025.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
MAT 103 - Foundations of Mathematics I....3
HIS 203 or HIS 205 - History of U.S. to 1877 or History of U.S. from 1877....3
PSY 101 - Introduction to Psychology....3
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
Elective - Aesthetic Sensibility....3
MAT 104 or MAT 106 - Foundations of Mathematics II or Mathematics Applications....3
Elective - Scientific Reasoning....4

Major Requirements

EDU 100 - Introduction to Education....3
EDU 210 - Teaching Young Children....3
EDU 213 - Working with Children with Special Needs....3
EDU 225 - Guiding Children's Reading....3
EDU 228 - Literature in Early Childhood & Elementary Education....3
EDU 233 - Early Childhood Curriculum....3
EDU 240 - Teaching English Language Learners....3
EDU 245 - Connecting Families, Schools and Communities....3
EDU 250 - Student Teaching....6
EDU Elective - EDU 121, EDU 226, EDU 227 or EDU 229....3
PSY 200 - Child Psychology....3

TOTAL PROGRAM CREDITS: 61

EDUCATION IN THE MIDDLE YEARS (A.A.)

Purpose

The Education in the Middle Years: Fourth Through Eighth Grade AA degree program prepares students for transfer to a four-year college in order to pursue a Pennsylvania Department of Education certification to teach in grades four through eight. Students will take several required education courses as well as general education courses. Prior to course selection, students meet with advisors to discuss transfer options to ensure that they select courses that are appropriate for their transfer institution.

Program Outcomes

- Identify the roles, responsibilities, and characteristics of successful teachers;
- Determine his/her own motivations, desires, and interests pertaining to a teaching career in a middle school and explain why s/he has made the decision;
- Apply instructional strategies that effectively integrate technology use in the classroom;
- Identify the challenges that students from diverse communities and families may face and recognize the teacher's role in supporting all students in the classroom;
- Apply instructional strategies and identify ways to differentiate instruction for students that have special learning, physical or language differences.

Clearances for Education Courses

In order for you to participate in certain education courses and to observe classrooms, tutor students, etc., you will need to have background checks done. So that you have your clearances when classes begin, you should apply early for these screenings.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
PSY 101 - Introduction to Psychology....3
Elective - Cultural Awareness and Diversity....3
ENG 102 - English Composition II....3
Quantitative Reasoning - Quantitative Reasoning Electives (choose two - student may not take ACC 110 to fulfill this requirement)....6 - 8
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....4

Major Requirements

EDU 100 - Introduction to Education....3
EDU 120 - Teaching with Technology in Middle Years and Secondary Education....3
EDU 213 - Working with Children with Special Needs....3
EDU 240 - Teaching English Language Learners....3
PSY 204 - Adolescent Psychology....3
PSY 210 - Educational Psychology....3

Electives

Electives - Electives....15

TOTAL PROGRAM CREDITS: 61-63

SECONDARY EDUCATION (A.A.)

Purpose

The Secondary Education AA degree program prepares students to transfer into a Secondary Education, Grades 7-12, program at a four-year college that, with passing scores on required state tests, will lead to certification in the Commonwealth of Pennsylvania. Students take several required education courses along with general education courses and are encouraged to choose a content area of academic focus. Prior to course selection, students meet with advisors to discuss transfer options to ensure that they select courses that are appropriate for their transfer institution.

Program Outcomes

- Integrate the roles, responsibilities and characteristics of successful teachers into a personal educational philosophy;
- Apply instructional strategies that effectively integrate technology use in the classroom;
- Determine the challenges that students from diverse communities and families may face and the teacher's role in supporting all students in the classroom;
- Differentiate instruction for students that have special learning, physical or language differences.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
HIS 203 or HIS 205 - History of the U.S. to 1877 or History of the U.S. from 1877....3
Elective - Quantitative Reasoning (choose two - student may not take ACC 110, MAT 103 or MAT 104 to fulfill this requirement)....6
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3

PSY 101 - Introduction to Psychology..... 3
Elective - Aesthetic Sensibility..... 3
Elective - Scientific Reasoning.....4

Major Requirements
EDU 100 - Introduction to Education..... 3
EDU 120 - Teaching with Technology in Middle Years and Secondary Education.....3
EDU 213 - Working with Children with Special Needs.....3
EDU 240 - Teaching English Language Learners.....3
PSY 204 - Adolescent Psychology..... 3
PSY 210 - Educational Psychology..... 3

Electives
Electives - Electives..... 15

TOTAL PROGRAM CREDITS: 61-63

ENGINEERING & TECHNOLOGY

CLOUD COMPUTING (CERTIFICATE)

Purpose

Program Outcomes
- Analyze and solve computer hardware and software problems
- Program and configure Cisco switches and routers
- Describe the principles and components of cloud computing

Program Curriculum
General Education Requirements
ENG 101 - English Composition I.....3
Elective - **Oral Communication**.....3
Elective - Aesthetic Sensibility..... 3
Elective - Scientific Reasoning.....4
Elective - Cultural Awareness and Diversity..... 3

Major Requirements

CIS 111 - Computer Science I: Programming and Concepts..... 3
CIS 114 - Web Development and Design.....3
CIS 141 - Introduction to Linux.....3
CIS 170 - Introduction to Networks.....3
CIS 171 - Switching, Routing and Wireless Essentials..... 3
CIS 151 - Systems Analysis and Design..... 3
CIS 166 - Introduction to Cloud Computing..... 3
CIS 158 - Windows Server Adminstration and Support..... 3
CIS 203 - Azure Cloud Fundamentals..... 3
CIS 204 - Azure Cloud Administrator.....3
CIS 205 - AWS Cloud Practitioner.....3
CIS 275 or CIS 208 - Network Security Fundamentals or Implementing CISCO Cyber Operations.....3
CIS Electives (Choose Two) - CIS 172, CIS 142, CIS 258, CIS 110, CIS 113, CIS 257, CIS 206.....6

TOTAL PROGRAM CREDITS: 61

COMPUTER NETWORKING AND CYBER SECURITY (A.A.S.)

Purpose
The Computer Networking and Cyber Security AAS program prepares graduates with knowledge and skills in networking, computer support, data communications and cyber security. Graduates are prepared and eligible to take industry certification exams (such as A+, Microsoft MTA, Security+ and CISCO CCNA) and can expect to work as an entry-level network administrator, security specialist or computer support technician. This program requires extensive hands-on work in computer labs featuring state-of-the-art equipment.

Program Outcomes
- Analyze and solve computer hardware and software problems;
- Program and configure Cisco switches and routers.
- Describe the principles and components of cybersecurity.
- Apply critical thinking, team building, and problem-solving skills to design, implement, and maintain a secure local area network configuration.

Program Curriculum
General Education Requirements
ENG 101 - English Composition I.....3
Elective - Quantitative Reasoning.....3-4
Elective - Oral Communication.....3
Elective - Scientific Reasoning.....4
Elective - Aesthetic Sensibility..... 3
Elective - Cultural Awareness and Diversity..... 3

Major Requirements
CIS 113 - IT Hardware Essentials and Support..... 3
CIS 155 - PC Applications on Networks..... 3
CIS 170 - Introduction to Networks.....3
CIS 171 - Switching, Routing and Wireless Essentials..... 3
CIS 172 - Enterprise Networking, Security and Administration..... 3
CIS 1101 or CIS 111 - Programming for Everyone or Computer Science I: Programming and Concepts.....3
CIS 158 - Windows Server Administration and Support.....3
CIS 141 - Introduction to Linux..... 3
CIS 275 or CIS 208 - Network Security Fundamentals or Implementing CISCO Network Security.....3
CIS 258 - Advanced Windows Server Administration and Support..... 3
CIS 166 - Introduction to Cloud Computing..... 3
Select two: MGT 111, CIS 142, CIS 207, CIS 208, CIS 209 or CIS 275 - Principles of Management, Advanced Linux, Introduction to Computer Forensics, Implementing CISCO Network Security, Ethical Hacking, or Network Security Fundamentals.....6
CIS 257 - Network Planning, Project Management and Implementation Capstone.....3

Full-time sample course schedule
Semester 1
ENG 101 - English Composition I.....3
Elective - Quantitative Reasoning.....3-4
CIS 113 - IT Hardware Essentials and Support..... 3

CIS 155 - PC Applications on Networks..... 3
CIS 170 - Introduction to Networks.....3
Semester 2
Elective - Oral Communication.....3
CIS 171 - Switching, Routing and Wireless Essentials..... 3
CIS 1101 or CIS 111 - Programming for Everyone or Computer Science I: Programming and Concepts.....3
CIS 158 - Windows Server Administration and Support.....3
CIS 141 - Introduction to Linux..... 3
Semester 3
Elective - Scientific Reasoning.....4
CIS 275 or CIS 208 - Fundamentals of Network Security or Implementing CISCO Network Security.....3
CIS 172 - Enterprise Networking, Security and Automation.....3
CIS 258 - Advanced Windows Server Administration and Support..... 3
Elective - Aesthetic Sensibility..... 3
Semester 4
CIS 166 - Introduction to Cloud Computing..... 3
Select Two: MGT 111 or CIS 142 or CIS 207 or CIS 208 or CIS 209 or CIS 275 - Principles of Managment or Advanced Linux or Introduction to Computer Forensics or Implementing CISCO Network Security or Ethical Hacking or Fundamentals of Network Security..... 6
Elective - Cultural Awareness and Diversity..... 3
CIS 257 - Network Planning, Project Management and Implementation Capstone.....3

Part-time sample course schedule
Semester 1
CIS 113 - IT Hardware Essentials and Support..... 3
CIS 155 - PC Applications on Networks..... 3
Semester 2
Elective - Quantitative Reasoning.....3-4
CIS 170 - Introduction to Networks.....3
Semester 3
ENG 101 - English Composition I..... 3
CIS 171 - Switching, Routing and Wireless Essentials..... 3
Semester 4
Elective - Oral Communication.....3
CIS 1101 or CIS 111 - Programming for Everyone or Computer Science I: Programming and Concepts.....3
CIS 172 - Enterprise Networking, Security and Automation.....3
Semester 5
CIS 158 - Windows Server Administration and Support.....3
CIS 141 - Introduction to Linux..... 3
Semester 6
Elective - Scientific Reasoning.....4
CIS 258 - Advanced Windows Server Administration and Support..... 3
Semester 7
CIS 275 or CIS 208 - Fundamentals of Network Security or Implementing CISCO Network Security.....3
Elective - Aesthetic Sensibility..... 3
Semester 8
CIS 166 - Introduction to Cloud Computing..... 3
Elective - Cultural Awareness and Diversity..... 3
Select One: MGT 111 or CIS 142 or CIS 207 or CIS 208 or CIS 209 or CIS 275 - Principles of Managment or Advanced Linux or Introduction to Computer Forensics or Implementing CISCO Network Security or Ethical Hacking or Fundamentals of Network Security..... 3
Semester 9
Select One: MGT 111 or CIS 142 or CIS 207 or CIS 208 or CIS 209 or CIS 275 - Principles of Managment or Advanced Linux or Introduction to Computer Forensics or Implementing CISCO Network Security or Ethical Hacking or Fundamentals of Network Security..... 3
CIS 257 - Network Planning, Project Management and Implementation Capstone.....3

TOTAL PROGRAM CREDITS: 60-62

COMPUTER NETWORKING AND CYBER SECURITY (CERTIFICATE)

Purpose

The Computer Networking and Cybersecurity certificate is designed to prepare the graduate to take certification exams including A+, Security+, Microsoft MTA, and CISCO CCNA.

Program Outcomes

- Analyze and solve computer hardware and software problems.
- Program and configure Cisco switches and routers.
- Describe the principles and components of cyber security.
- Apply critical thinking, team building, and problem-solving skills to design, implement, and maintain a secure local area network configuration.

Program Curriculum

Requirements
CIS 113 - IT Hardware Essentials and Support..... 3
CIS 155, CIS 111 or CIS 1011 - PC Applications on Networks, Computer Science I: Programming & Concepts or Programming for Everyone.....3
CIS 158 - Windows Server Administration and Support.....3
CIS 170 - Introduction to Networks.....3
CIS 171 - Switching, Routing and Essentials.....3
CIS 172 - Enterprise Networking, Security and Automation.....3
CIS 141 - Introduction to Linux..... 3
CIS 275 or CIS 208 - Network Security Fundamentals or Implementing Network Security..... 3
CIS 166 - Introduction to Cloud Computing..... 3
CIS 142, CIS 209, CIS 207, CIS 258, or CIS 257 - Advanced Linux, Ethical Hacking, Introduction to Computer Forensics, Advanced Windows Server Administration, or Network Planning, Project Management and Implementation Capstone.....3

TOTAL PROGRAM CREDITS: 30

COMPUTER SCIENCE (A.S.)

Purpose

The Computer Science program is designed primarily for those students who plan to transfer to a four-year institution and major in computer science.

Program Outcomes

- Design solutions to quantitative problems by applying algorithm design;
- Design solutions to quantitative problems using programming support tools;
- Exhibit an ability to communicate effectively in a professional technical environment;
- Demonstrate an understanding of professional, ethical, legal, and security issues for programming professionals;
- Demonstrate knowledge of mathematical principles required for work in computer science;

- Construct program solutions using various data structures and testing techniques complete with supporting documentation and testing plans;
- Construct program solutions that include testing techniques, testing plans, and supporting documentation.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
BIO 121, CHE 121 or PHY 121 - General Biology I, General Chemistry - Inorganic or General Physics I....4
BIO 122, CHE 122 or PHY 122 - General Biology II, General Chemistry - Organic or General Physics II....4
Elective - Choose one of the following: ART 101, ART 102, ART 103, ART 111, ART 121, DAN 101, DAN 102, DAN 103, DAN 110, DAN 121, DAN 123, DAN 131, DAN 134, DAN 251, MUS 110, MUS 112, MUS 113, MUS 114, THA 105....3
Elective - 200-Level LIT Course - Choose one of the following: ENG 201, ENG 202, ENG 211, ENG 212, ENG 221, ENG 222, ENG 235, ENG 236, ENG 237, ENG 238, ENG 245, ENG 246, ENG 248, ENG 255, ENG 256, ENG 257, ENG 265, ENG 266, ENG 275 or ENG 285....3
PSY 101 or SOC 101 - Introduction to Psychology or Introduction to Sociology....3
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
Elective - ANT 104, HIS 101, HIS 102, HIS 203 or HIS 205....3

Major Requirements

CIS 110 or CIS 155 - Computer Information Systems for Management or PC Application on Networks....3
CIS 111 - Computer Science I: Programming and Concepts....3
CIS 111B - Computer Science II: Object-Oriented Programming....3
CIS 112 - Computer Science III: Data Structures and Algorithms....3
CIS 126 - Computer Architecture and Organization....3
CIS 245 - Database Management Systems/SQL....3
MAT 125 - Discrete Mathematics....3
MAT 130 - Probability and Statistics....4
MAT 190 - Calculus and Analytical Geometry I....4
Elective - CIS....3

Electives

Elective - Elective....3

TOTAL PROGRAM CREDITS: 61

ELECTRICAL ENGINEERING SCIENCE (A.S.)

Purpose

The Engineering Science program is a rigorous program of study designed to prepare students for transfer to four-year schools of Engineering. The curriculum prepares the student for advanced study in a variety of fields such as Electrical, Computer, Mechanical, Civil, Structural, and Architectural Engineering.

Program Outcomes

- Analyze and interpret fundamental engineering problems;
- Apply the scientific method to derive solutions to fundamental engineering problems;
- Derive models for solution based on learned methodologies and principles;
- Apply computer-based analysis and solution software to engineering situations;
- Show evidence of an ability to function effectively on teams;
- Show evidence of an ability to communicate effectively.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
Elective - Oral Communication....3
Elective - Cultural Awareness and Diversity....3
Elective - Aesthetic Sensibility....3

Major Requirements

CHE 151 - Principles of Chemistry I....4
EGR 102 - Introduction to Engineering....3
EGR 111 - Engineering Computations....3
EGR 115 - Engineering Graphics....3
EGR 210 - Digital Systems....4
EGR 211 - Linear Electrical Systems I....4
EGR 214 - Linear Electrical Systems II....4
MAT 190 - Calculus and Analytical Geometry I....4
MAT 201 - Calculus and Analytical Geometry II....4
MAT 202 - Calculus and Analytical Geometry III....4
MAT 223 - Differential Equations....4
PHY 151 - Principles of Physics I....4
PHY 152 - Principles of Physics II....4

TOTAL PROGRAM CREDITS: 64

ENGINEERING TECHNOLOGY - ELECTRICAL (A.A.S.)

Purpose

The Engineering Technology Electrical Concentration is designed to prepare graduates for career positions as electrical engineering technicians in the advanced technology areas of electric circuits, instrumentation, and communications. The technician fills the role of applications-expert serving under engineers and technologists. A solid foundation in applied mathematics and physical science is necessary to enable the technician to communicate well in an engineering environment.

Program Outcomes

- Analyze a student-created engineering model using appropriate general calculations;
- Design, model and develop concepts in a 3D solid modeling environment to address the industrial demands of today's technology;
- Apply theoretical attributes of electrical components to systems design;
- Identify and describe component and system-level problems in engineering using state-of-the-art testing equipment;
- Design and present a final project using all of the above engineering skills including good oral communication and technical writing ability.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 115 or ENG 117 - Writing for Technical Communication or Writing for Business and Industry....3
Elective - Oral Communication....3
Elective - Cultural Awareness and Diversity....3
Elective - Aesthetic Sensibility....3

Major Requirements
EGR 111 - Engineering Computations..... 3
EGR 115 - Engineering Graphics.....3
EGT 190 - Principles of Critical Thinking in Technology..... 3
EGT 210 - Digital Circuits..... 4
EGT 211 - AC/DC Circuits..... 4
EGT 230 - Analog Circuits..... 4
EGT 235 - Instrumentation and Control Systems..... 4
EGT 240 - Communication Systems.....4
MAT 161 - Precalculus I.....4
MAT 162 - Precalculus II.....4
PHY 121 - General Physics I.....4
PHY 122 - General Physics II.....4

TOTAL PROGRAM CREDITS: 60

INFORMATION TECHNOLOGY (A.S.)

Purpose
The Information Technology program is designed primarily for those students who plan to transfer to a four-year college or university and major in information technology. This program provides a broad overview of programming, networking, web development and database design.

Program Outcomes
- Design solutions to quantitative problems by applying algorithm design using programming support tools;
- Exhibit an ability to communicate effectively in a professional technical environment;
- Examine professional, ethical, legal, and security issues for programming professionals;
- Create Web sites that incorporate the fundamental principles of visual design;
- Describe the Open Systems Interconnection Reference Model (OSI) layers and their functionality;
- Design and utilize databases.

After earning their associate degree, our students usually transfer to four-year colleges or universities to continue their studies in information technology.

Program Curriculum
General Education Requirements
ENG 101 - English Composition I.....3
Elective - Cultural Awareness and Diversity..... 3
Elective - Quantitative Reasoning..... 3 - 4
CMS 110 OR CMS 120 - Speech Communication or Public Speaking..... 3
Elective - Aesthetic Sensibility..... 3
Elective - Mathematics Elective..... 3
Elective - BIO 121, CHE 121 or PHY 121..... 4
MGT 111 - Principles of Management.....3
Elective - ACC, ECO, MGT, or MKT.....3

Major Requirements
CIS 110 or CIS 155 - Computer Information Systems for Management or PC Applications on Networks.....3
CIS 111 - Computer Science I: Programming and Concepts..... 3
CIS 111B - Computer Science II: Object-Oriented Programming..... 3
CIS 114 - Web Design and Development..... 3
CIS 151 - Systems Analysis and Design..... 3
CIS 170 - Introduction to Networks.....3
CIS 215 - Decision Making Using Spreadsheets..... 3
CIS 245 - Database Management Systems/SQL.....3
CIS Elective - CIS Elective..... 3
CIS Elective - CIS Elective..... 3

Electives
Electives - Electives..... 3

TOTAL PROGRAM CREDITS: 61-62

MECHANICAL ENGINEERING TECHNOLOGY (A.A.S.)

Purpose
The Engineering Technology, Mechanical Concentration is designed to prepare graduates for career positions as mechanical engineering technicians in the advanced technology of mechanical structures and systems. The technician fills the role of applications-expert serving under engineers and technologists. A solid foundation in applied mathematics and physical science is necessary to enable the technician to communicate well in an engineering environment.

Program Outcomes
- Identify and describe component and system-level engineering problems using state-of-the-art testing equipment;
- Design and develop concepts in a 3D solid modeling environment to address the industrial demands of today's technology;
- Analyze student-created engineering models using appropriate general calculations;
- Apply theoretical attributes of mechanical components to systems design;
- Create and present a final project using all of the above skills plus good oral communication and technical writing.

Program Curriculum
General Education Requirements
ENG 101 - English Composition I.....3
ENG 115 or ENG 117 - Writing for Technical Communication or Writing for Business and Industry.....3
Elective - Oral Communication.....3
Elective - Cultural Awareness and Diversity..... 3
Elective - Aesthetic Sensibility..... 3

Major Requirements
EGR 111 - Engineering Computations..... 3
EGR 115 - Engineering Graphics.....3
EGT 190 - Principles of Critical Thinking in Technology..... 3
EGT 203 - Applied Statics..... 4
EGT 204 - Applied Dynamics.....4
EGT 212 - Applied Fluid Dynamics.....4
EGT 213 - Applied Strength of Materials.....4
EGT 215 - Applied Thermodynamics.....4
MAT 161 - Precalculus I.....4
MAT 162 - Precalculus II.....4
PHY 121 - General Physics I.....4
PHY 122 - General Physics II.....4

TOTAL PROGRAM CREDITS: 60

MECHANICAL ENGINEERING SCIENCE (A.S.)

Purpose

The Engineering Science program is a rigorous program of study designed to prepare students for transfer to four-year schools of Engineering. The curriculum prepares the student for advanced study in a variety of fields such as Electrical, Computer, Mechanical, Civil, Structural, and Architectural Engineering.

Program Outcomes

- Analyze and interpret fundamental engineering problems;
- Apply the scientific method to derive solutions to fundamental engineering problems;
- Derive models for solution based on learned methodologies and principles;
- Apply computer-based analysis and solution software to engineering situations;
- Show evidence of an ability to function effectively on teams;
- Show evidence of an ability to communicate effectively.

Montco has transfer agreements with many major universities. For example, Temple University allows you to transfer as a junior into a mechanical engineering or civil engineering major. How fantastic is that! Earn an associate degree in Science and then seamlessly transfer to Temple with only two years left for your bachelor's degree in engineering.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
Electives - Oral Communication....3
Electives - Cultural Awareness and Diversity....3
Electives - Aesthetic Sensibility....3

Major Requirements

CHE 151 - Principles of Chemistry I....4
EGR 102 - Introduction to Engineering....3
EGR 111 - Engineering Computations....3
EGR 115 - Engineering Graphics....3
EGR 203 - Engineering Statics....3
EGR 204 - Engineering Dynamics....3
EGR 211 - Linear Electrical Systems I....4
EGR 213 - Mechanics of Materials....3
MAT 190 - Calculus I....4
MAT 201 - Calculus II....4
MAT 202 - Calculus III....4
MAT 223 - Differential Equations....4
PHY 151 - Principles of Physics I....4
PHY 152 - Principles of Physics II....4

TOTAL PROGRAM CREDITS: 65

NANOFABRICATION ENGINEERING TECHNOLOGY (A.A.S.)

Purpose

The Engineering Technology - Nanofabrication concentration is designed to prepare the graduate for employment as an entry-level nanofabrication technician. It also prepares the graduate for advanced study in nanofabrication techniques. Students learn to produce nanometer-level products as well as collect, process, and analyze data, improve process parameters, and general assist engineers in research, development and manufacture of the same.

Program Outcomes

- Analyze a student-created engineering model using appropriate general calculations;
- Design, model and develop concepts in a 3D solids modeling environment to address the industrial demands of today's technology;
- Identify and describe the latest manufacturing technologies and processes encountered in the field of nanometer-level manufacturing;
- Identify and describe component and system-level problems in engineering using state-of-the-art testing equipment;
- Design and present a final project using all of the above engineering skills including good oral communication and technical writing ability.

Through our partnership with Penn State your final semester of classes on nanofabrication will be taught at the Penn State Center for Nanofabrication Education and Utilization.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 115 or ENG 117 - Writing for Technical Communication or Writing for Business and Industry....3
Elective - Oral Communication....3
Elective - Cultural Awareness and Diversity....3
Elective - Aesthetic Sensibility....3

Major Requirements

CHE 121 - General Chemistry - Inorganic....4
EGR 102 - Introduction to Engineering....3
EGR 115 - Engineering Graphics....3
EGR 111 - Engineering Computations....3
ESC 105 - Introduction to Nanotechnology and Microfabrication Techniques....3
ESC 211 - Material, Safety and Equipment Nanotech for Nanofabrication....3
ESC 212 - Basic Nanotechnology Processes....3
ESC 213 - Materials in Nanotechnology....3
ESC 214 - Patterning for Nanofabrication....3
ESC 215 - Materials Modification in Nanofabrication....3
ESC 216 - Characterization, Packaging, and Testing of Nanofabricated Structures....3
MAT 161 - Precalculus I....4
MAT 162 - Precalculus II....4
PHY 121 - General Physics I....4
PHY 122 - General Physics II....4

TOTAL PROGRAM CREDITS: 65

SOFTWARE ENGINEERING (CERTIFICATE)

Purpose

The Software Engineering Certificate is designed to prepare the graduate for employment as an entry-level computer programmer/software engineer, or to prepare the already experienced graduate to change her/his career direction.

Program Outcomes

- Demonstrate the skills necessary to be employed as a computer programmer/software engineer;
- Demonstrate the knowledge and skills needed for further education and career advancement;
- Provide the technical core which can be applied to the **Computer Science** or **Information Technology** degree.

Program Curriculum

CIS 111 - Computer Science I: Programming and Concepts..... 3
CIS 111B - Computer Science II: Object-Oriented Programming..... 3
CIS 112 - Computer Science III: Data Structures and Algorithms..... 3
CIS 114 - Web Design and Development..... 3
CIS 126 - Computer Architecture and Organization..... 3
CIS 151 - Systems Analysis and Design..... 3
CIS 235 - Object Oriented Programming in C++..... 3
CIS 245 or CIS 246 - Database Management Systems Using SQL or Data Integration for Web Applications..... 3
CIS Electives - Select Two: CIS-119, CIS-140, CIS-166, CIS-212, CIS-213, CIS-240, CIS-241, CIS-216 - User Interface/Experience Design, Client-Side Web Development, Introduction to Cloud Computing, Advanced HTML and CSS, Advanced JavaScript, Mobile Application Development, Server-Side Web Development, Computer Science Capstone..... 6

TOTAL PROGRAM CREDITS: 30

WEB DEVELOPMENT AND DESIGN (A.A.S.)

Purpose

Develop employable technical skills for students to become a programmer in the field of web development.

Program Outcomes

- Develop a secure, scalable, and standards compliant website.
- Utilize databases to develop dynamic interactive websites and applications.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I..... 3
Elective - Quantitative Reasoning..... 3-4
Elective - Oral Communication..... 3
Elective - Scientific Reasoning..... 4
ART 138 or ART 180 - Digital Art I or Introduction to Visual Communication..... 3
MGT 111 or MKT 111 - Principles of Management or Principles of Marketing..... 3

Major Requirements

CIS 111 - Computer Science I: Programming and Concepts..... 3
CIS 114 - Web Design and Development..... 3
CIS 111B - Computer Science II: Object-Oriented Programming..... 3
CIS 141 - Introduction to Linux..... 3
CIS 212 - Advanced HTML and CSS..... 3
CIS 119 - User Interface/Experience Design..... 3
CIS 246 - Data Integration for Web Applications..... 3
CIS 140 - Client-Side Web Development..... 3
CIS 240 - Mobile Application Development..... 3
CIS 151 - Systems Analysis and Design..... 3
CIS 241 - Server-Side Web Development..... 3
CIS 213 - Advanced JavaScript..... 3
CIS 216 - Computer Science Capstone..... 3

Electives

Elective - Elective..... 3

Full-time sample course schedule

Semester 1
ENG 101 - English Composition I..... 3
Elective - **Quantitative Reasoning**..... 3-4
MGT 111 or **MKT 111** - Principles of Management or Principles of Marketing..... 3
CIS 114 - Web Design and Development..... 3
CIS 111 - Computer Science 1: Programming and Concepts..... 3
Semester 2
CIS 111B - Computer Science II: Object-Oriented Programming..... 3
CIS 141 - Introduction to Linux..... 3
CIS 212 - Advanced HTML and CSS..... 3
ART 138 or **ART 180** - Digital Art I or Introduction to Visual Communication..... 3
CIS 119 - User Interface/Experience Design..... 3
Semester 3
Elective - **Oral Communication**..... 3
CIS 246 - Data Integration for Web Applications..... 3
CIS 140 - Client-Side Web Development..... 3
Elective - **Scientific Reasoning**..... 4
CIS 240 - Mobile Application Development..... 3
Semester 4
CIS 151 - Systems Analysis and Design..... 3
CIS 241 - Server-Side Web Development..... 3
CIS 213 - Advanced JavaScript..... 3
Elective - Open Elective..... 3
CIS 216 - Computer Science Capstone..... 3

Part-time sample course schedule

Semester 1
CIS 114 - Web Design and Development..... 3
Elective - Quantitative Reasoning..... 3-4
Semester 2
CIS 111 - Computer Science I: Programming and Concepts..... 3
CIS 212 - Advanced HTML and CSS..... 3
Semester 3
MKT 111 or MGT 111 - Principles of Marketing or Principles of Management..... 3
CIS 111B - Computer Science II: Object-Oriented Programming..... 3
Semester 4
CIS 141 - Introduction to Linux..... 3
ENG 101 - English Composition I..... 3
Semester 5
ART 138 or ART 180 - Digital Art I or Introduction to Visual Communication..... 3
CIS 119 - User Interface/Experience Design..... 3
Semester 6
Elective - Oral Communication..... 3
CIS 140 - Client-Side Web Development..... 3
CIS 246 - Data Integration for Web Applications..... 3
Semester 7
Elective - Scientific Reasoning..... 4
CIS 240 - Mobile Application Development..... 3
Semester 8

CIS 151 - Systems Analysis and Design....3
CIS 241 - Server-Side Web Development....3
Elective - Open Elective....3

Semester 9

CIS 213 - Advanced JavaScript....3
CIS 216 - Computer Science Capstone....3

TOTAL PROGRAM CREDITS: 61-62

WEB DEVELOPMENT AND DESIGN (CERTIFICATE)

Purpose

Bank on a future in web development with our Web Design and Development Certificate program. In our Development Concentration you'll build the skills needed to become a web developer and programmer.

Program Outcomes

- Develop a secure, scalable, and standards compliant website.
- Utilize databases to develop dynamic interactive websites and applications.

Program Curriculum

Requirements

CIS 111 - Computer Science I: Progamming and Concepts....3
CIS 111B - Computer Science II: Object-Oriented Programming....3
CIS 114 - Web Design and Development....3
CIS 212 - Advanced HTML and CSS....3
CIS 119 - User Interface/Experience Design....3
CIS 140 - Client-Side Web Development....3
CIS 213 - Advanced JavaScript....3
CIS 240 - Mobile Web Integration....3
CIS 246 - Data Integration for Web Applications....3
CIS 241 - Server-Side Web Development....3
CIS 151 - Systems Analysis and Design....3

TOTAL PROGRAM CREDITS: 30

HEALTH

DENTAL HYGIENE (A.A.S.)

Purpose

The Dental Hygiene Program is designed to prepare graduates to become licensed dental hygienists capable of employment in private dental offices and alternative career settings to meet the preventive and therapeutic oral health care needs of the public. Students receive extensive clinical experience at the Blue Bell Campus' dental hygiene facility and participate in enrichment experiences at community based sites. Articulation agreements have been established with baccalaureate degree completion programs to maximize transfer of credits and simplify the admissions process.

Program Outcomes

- Adhere to ethical, legal, and regulatory requirements in all aspects of dental hygiene practice.
- Demonstrate#the knowledge and skills necessary to provide dental hygiene care that meets#professional standards and ensures eligibility for licensing examinations.
- Engage with#patients from diverse backgrounds to educate them about oral health, address their concerns, and empower them to adopt and#maintain#healthy oral hygiene practices.
- Maintain#a dedication to enhancing clinical skills, contributing to the community through service learning and volunteering, and pursuing ongoing professional development through continuing education.
- Promote the role of the dental hygienist as an integral member of the patient's health and wellness team, fostering collaboration and holistic care.

Accreditation

The program in dental hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of "approval without reporting requirements." The Commission is a specialized accrediting body recognized by the United States Department of Education.

Commission on Dental Accreditation (CODA)
211 East Chicago Avenue
Chicago, Illinois 60611
phone: 312-440-2718
website: ada.org/en/coda

Mission Statement

The mission of the Dental Hygiene Program is to develop ethical and competent dental hygiene practitioners capable of integrating the varied roles of the dental hygiene profession. The program will strive to provide high quality, affordable and accessible educational opportunities to meet the educational needs of its students, while serving the community.

All applicants seeking admission to the clinical component of the Dental Hygiene Program are required to submit a completed Petition for Dental Hygiene Program Admission to the Office of Admissions, Records and Registration.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ART 111, ART 161, THA 114 (recommended, all accepted) - Aesthetics Sensibility....3
PSY 101 - Introduction to Psychology....3
CMS 110 or CMS 120 - Speech Communication[I,O] or Public Speaking....3
SOC 101 - Introduction to Sociology....3
ESW 206 - Basic Nutrition....3

Major Requirements

BIO 131 - Human Anatomy and Physiology I....4
BIO 132 - Human Anatomy and Physiology II....4
BIO 140 - Microbiology and Immunology....4
DHG 100 - Theory and Practice of Dental Hygiene I....4
DHG 111 - Dental Anatomy....2
DHG 155 - Dental Radiology....3
DHG 157 - Oral Pathology....2
DHG 158 - Theory and Practice of Dental Hygiene II....5
DHG 113 - Dental Histology and Embryology....2
DHG 161 - Periodontics I....2
DHG 220 - Theory and Practice of Dental Hygiene III....5
DHG 224 - Materials in Dentistry....2
DHG 225 - Oral Pharmacology....2
DHG 226 - Dental Pain Control....2
DHG 253 - Community Dentistry....2
DHG 258 - Theory and Practice of Dental Hygiene IV....5

DHG 261 - Periodontics II.....2

TOTAL PROGRAM CREDITS: 70

EXERCISE SCIENCE AND WELLNESS (A.S.)

Purpose

The Exercise Science and Wellness A.S. program is designed to provide students a well designed plan of transfer to a four year college or university. By integrating a broad spectrum of general education and Exercise Science and Wellness courses and by offering the ability to focus study in three specific areas of concentration, the curriculum prepares the student for advanced study in a variety of fields such as Exercise Science, Kinesiology, Physical Education, Athletic Training, Sport and Fitness, and Recreational Management

Program Outcomes

- Demonstrate proficiency in communicating health and wellness concepts;
- Apply knowledge of human anatomy and physiology, kinesiology, and exercise science to the field of health and wellness;
- Design and conduct a research study within Exercise Science and Wellness;
- Prepare a plan for continuing education within Exercise Science and Wellness.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
ENG 102 - English Composition II.....3
MAT 106, MAT 130, or MAT 131 - Mathematics Applications, Probability and Statistics or Introduction to Statistics.....3 - 4
BIO 121, BIO 151, CHE 121, CHE 151, PHY 115, or PHY 151 - General Biology I, Principles of Biology I, General Chemistry - Inorganic, Principles of Chemistry I, Technical Physics, or Principles of Physics I.....4
Elective - Cultural Awareness and Diversity.....3
Elective - Aesthetic Sensibility.....3
PSY 101, PSY 136, PSY 137, PSY 206, PSY 210, or PSY 215 - Introduction to Psychology, Personality, Introduction to Organizational Psychology, Human Development/LifeSpan, Educational Psychology, or Abnormal Psychology.....3
CMS 110, CMS 120 or THA 105 - Speech Communication, Public Speaking or Introduction to Acting I.....3

Major Requirements

BIO 129 or BIO 132 - Functional Human Anatomy and Physiology (Grade of "C" or better) or Human Anatomy and Physiology II.....4
ESW 102 - Introduction to Exercise Science, Wellness and Sport Studies.....3
ESW 206 - Basic Nutrition.....3
ESW 222 - Applied Kinesiology *(offered fall only)*.....3
ESW 224 - Exercise Physiology *(offered fall only)*.....4
ESW 228 - Research Methods in Exercise Science and Wellness.....3
ESW 245 - Safety and First Aid.....3
ESW Elective - ESW Elective.....2 - 3

Electives

Elective - Elective.....12-15

TOTAL PROGRAM CREDITS: 62-67

HEALTH AND FITNESS PROFESSIONAL (A.A.S.)

Purpose

The Health and Fitness Professional program provides a comprehensive curriculum and educational experience for students who wish to enter the health and fitness field. The program provides the educational and experiential learning required to complete the American College of Sports Medicine (ACSM) Certified Personal Trainer Examination. During the final semester of the program, students will study for and take the ACSM Certified Personal Trainer Examination. Each student will earn and must maintain the American Heart Association certification in First Aid and AdultCardio Pulmonary Resuscitation. In addition to these certifications, the program provides the student with a strong theoretical base as well as practical experience via service learning and an experiential practicum in an educational fitness setting.

Program Outcomes

- Assess physical fitness, including cardiorespiratory fitness, muscular strength, muscular endurance, flexibility and anthropometric measures in order to set goals and establish a baseline for program development.
- Educate clients using scientifically sound health and fitness information and resources to enhance client's knowledge base, program enjoyment, adherence and overall awareness of health and fitness related information.
- Apply behavior change theories to individuals across populations and across the lifespan.
- Design fitness plans based on client interview, risk stratification, and physical fitness assessments.
- Demonstrate proficiency in communicating health and wellness concepts.

During your final semester, you will complete an internship to gain practical knowledge and potential employment. You will also take the American College of Sports Medicine (ACSM) Certified Personal Trainer Examination to receive certification. After graduating, you can expect to find entry-level work in the fitness/health industry and in allied fields such as personal trainer, corporate wellness, YMCA, commercial recreation and fitness centers, recreational therapy and retirement homes and communities. You can also continue your education at a four-year institution.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
ENG 102, ENG 115 or ENG 117 - English Composition II, Writing for Technical Communication or Writing for Business and Industry.....3
Elective - Cultural Awareness and Diversity.....3
Elective - Aesthetic Sensibility.....3
MAT 106 or MAT 130 - Mathematics Applications or Probability and Statistics.....3 - 4
Elective - Oral Communication.....3

Major Requirements

BIO 129 - Functional Human Anatomy and Physiology (Grade of "C" or better).....4
ESW 102 - Introduction to Exercise Science, Wellness, and Sport Studies.....3
ESW 146 - Conditioning, Weight Training, and Weight Management.....2
ESW 151 - Fundamentals of Functional Training.....2
ESW 206 - Basic Nutrition.....3

ESW 215 - Prevention and Care of Athletic Injury....3
ESW 222 - Applied Kinesiology....3
ESW 224 - Exercise Physiology....4
ESW 226 - Assessment of Human Fitness....3
ESW 227 - Exercise Programming for Healthy and Special Populations....3
ESW 236 - Personal Health and Wellness....3
ESW 245 - Safety and First Aid....3
ESW 296 - Practicum in Exercise Science and Wellness....4

Electives
Elective - Elective....2 - 3

TOTAL PROGRAM CREDITS: 60-62

HEALTH CARE ADMINISTRATION (A.S.)

Purpose

The Health Care Administration degree is designed to provide students with the knowledge and skills necessary to build a strong foundation in the administrative concepts and techniques necessary to deliver professional, ethical and culturally competent services in the fast-paced, innovative health care industry.

Program Outcomes

- Describe the major components of the US health care delivery system.
- Apply concepts of leadership, communication, finance and technology to the health care industry.
- Evaluate the impact of law, ethics and cultural competency on the provision and delivery of healthcare services.
- Analyze the impact of emerging issues on the health care delivery systems.

Program Curriculum

General Education Requirements
CMS 110, CMS 120 or THA 105 - Speech Communication, Public Speaking or Introduction to Acting I....3
ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
MAT 106 - Math Applications....3
OFM 101 or HCP 100 - Business Software Essentials or Medical Office Technologies and the EHR....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....4

Major Requirements
BIO 104/HCP-104/MAS-104 - The Human Body in Health and Disease....3
HCP 114 or HCP 120 - Medical Law and Ethics for Health Care Professionals or Ethical Issues Affecting Consumers and the Health Care Professions....3
HCP 140 - Introduction to Healthcare Administration....3
HCP 118, MGT 131, MKT 111 or MGT 221 - Professional Essentials for a Healthcare Career, Human Resources Management, Principles of Marketing or Supervision....3
HCP 200 - Healthcare Delivery Systems....3
HCP 221 - Cultural Competency in Healthcare....3
HCP 224 - Medical Terminology....3
MGT 111 - Principles of Management....3
PBH 101 - Introduction to Public Health....3

Electives
Electives - Electives....12

Full-time sample course schedule
Semester 1
OFM 101 or HCP 100 - Business Software Essentials or Medical Office Technologies and the EHR....3
HCP 224 - Medical Terminology....3
HCP 114 or HCP 120 - Medial Law and Ethics for Health Care Professionals or Ethical Issues Affecting Consumers and the Health Care Professions....3
HCP 140 - Introduction to Healthcare Administration....3
Elective - Elective 1....3
Semester 2
ENG 101 - English Composition I....3
BIO 104/HCP-104/MAS-104 - The Human Body in Health and Disease....3
MAT 106A - Math Applications....3
MGT 111 - Principles of Management....3
Elective - Elective 2....3
Semester 3
ENG 102 - English Composition II....3
CMS 110 or CMS 120 or THA 105 - Speech Communication or Public Speaking or Introduction to Acting I....3
PBH 101 - Introduction to Public Health....3
Elective - Scientific Reasoning....4
Elective - Elective 3....3
Semester 4
HCP 118 or MGT 131 or MKT 111 or MGT 221 - Professional Essentials for a Healthcare Career or Human Resources Management or Principles of Marketing or Supervision....3
HCP 200 - Healthcare Delivery Systems....3
HCP 221 - Cultural Competency in Healthcare....3
Elective - Aesthetic Sensibility....3
Elective - Elective 4....3

Part-time sample course schedule
Semester 1
OFM 101 or HCP 100 - Business Software Essentials or Medical Office Technologies and the EHR....3
HCP 224 - Medical Terminology....3
HCP 114 or HCP 120 - Medical Law and Ethics for Health Care Professionals or Ethical Issues Affecting Consumers and the Health Care Professions....3
Semester 2
ENG 101 - English Composition I....3
BIO 104/HCP-104/MAS-104 - The Human Body in Health and Disease....3
MAT 106A - Math Applications....3
Semester 3
ENG 102 - English Composition II....3
CMS 110 or CMS 120 or THA 105 - Speech Communication or Public Speaking or Introduction to Acting I....3
PBH 101 - Introduction to Public Health....3
Semester 4
HCP 118 or MGT 131 or MKT 111 or MGT 221 - Professional Essentials for a Healthcare Career or Human Resources Management or Principles of Marketing or Supervision....3
Elective - Aesthetic Sensibility....3
Elective - Elective 4....3
Semester 5

HCP 140 - Introduction to Healthcare Administration....3
Elective - Elective 1....3
Semester 6
MGT 111 - Principles of Management....3
Elective - Elective 2....3
Semester 7
Elective - Scientific Reasoning....4
Elective - Elective 3....3
Semester 8
HCP 200 - Healthcare Delivery Systems....3
HCP 221 - Cultural Competency in Healthcare....3

TOTAL PROGRAM CREDITS: 60-61

MEDICAL ASSISTING (CERTIFICATE)

Purpose

The Medical Assisting Certificate Program is designed to prepare graduates who are proficient in all administrative and clinical competencies necessary to perform numerous jobs in physicians' offices, hospitals, or other health care facilities. The program integrates theory, laboratory simulations and a clinical practicum experience offered in a variety of community locations. The Medical Assisting Certificate Program is offered as a 3 continuous semester program. Students have three years from the date of initial enrollment in the program in which to complete all certificate requirements. Graduates of the certificate program are highly valued members of the health care delivery team who are qualified to complete the American Association of Medical Assistants (AAMA) certification examination for Certified Medical Assistants (CMA) and/or the American Medical Technologists (AMT) certification examination for Registered Medical Assistants (RMA).The Medical Assisting Certificate Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB). Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 North, Suite 158
Clearwater, FL 33763
(727) 210-2350
www.caahep.org

Program Outcomes

- Demonstrate the knowledge base (cognitive), skills (psychomotor), behavior (affective), values, and competencies necessary to function as entry level Medical Assisting practitioners in accordance with nationally accepted standards of roles and functions;
- Utilize problem solving methods, critical thinking skills and interpersonal communication techniques as means of achieving personal and professional growth through competency demontration and credential attainment.

Program Curriculum

HCP 224 - Medical Terminology....3
HCP 100 - Medical Office Technologies and the EHR....3
HCP 114/MAS-114 - MedicalLaw and Ethics....3
MAS 113 - Clinical Assisting I....3
HCP 117/MAS-117 - Medical Office Administration....4
MAS 123 - Clinical Assisting II Procedures....3
MAS 121 - Laboratory Procedures in the Medical Office....3
HCP 104/MAS-104/BIO-104 - The Human Body in Health and Disease....3
MAS 130 - Medical Assisting Practicum....6

TOTAL PROGRAM CREDITS: 31

MEDICAL CODING (CERTIFICATE OF COMPLETION)

Purpose

This 16-credit Certificate of Completion provides students with the opportunity to concentrate study in Medical Coding and health services administrative practices and procedures. The student will develop the necessary job skills to attain success in an entry level coding position.Successful completion of the Medical Coding Certificate of Completion provides eligibility for the American Academy of Professional Coder's Certified Professional Coder (CPC) examination, and/or additional coding professional certifications (Certified Coding Associate (CCA®)/ Certified Coding Specialist (CCS®) based on the individual student's previous qualifications and background.

Program Outcomes

- Use coding and classification systems in order to assign valid diagnostic and/or procedure codes for medical billing and reimbursement required by the Health Insurance Portability and Accountability Act (HIPAA) including the validation of coded clinical information;
- Apply coded data and health information in reimbursement and payment systems appropriate to manage care and all healthcare settings in accordance with relevant legal and compliance issues;
- Create, use, and maintain the Electronic Health Record (EHR) management systems.

Upon receiving the Medical Coding Certificate of Completion, you are eligible to take the American Academy of Professional Coder's Certified Professional Coder (CPC) exam. You may also pursue additional coding certificates.

Program Curriculum

HCP 104/MAS-104/BIO-104 - The Human Body Health and Disease....3
HCP 224 - Medical Terminology....3
HCP 226 - Medical Coding I....3
HCP 227 - Medical Coding II....3
HCP 230 - CPT Coding and Reimbursement Methods....4

TOTAL PROGRAM CREDITS: 16

MEDICAL LABORATORY TECHNICIAN (A.A.S.)

Purpose

The nationally accredited* Medical Laboratory Technician program is designed to prepare graduates for employment in hospitals, commercial laboratories, physician office laboratories, and pharmaceutical companies. Upon program completion, students are eligible to take national certification examinations. Medical laboratory technicians follow specific procedures to perform a variety of routine diagnostic tests on blood and other body fluids in chemistry, hematology, urinalysis, immunohematology, microbiology, and immunology. Thus, MLTs, in cooperation with other laboratory personnel, provide physicians with valuable information needed to care for patients.

The curriculum combines traditional college courses in the humanities and sciences with clinical courses. Campus facilities and area hospital and commercial laboratories provide an authentic environment where students practice basic procedures, learn interpersonal skills, study diseases, and relate laboratory medicine to other aspects of health care.

Program Outcomes

- Collect and prepare clinical specimens for analysis;
- Operate laboratory instruments;
- Perform a variety of diagnostic analyses according to prescribed methodology;
- Monitor and assess the quality of data generated;
- Recognize problems which may occur during testing;
- Describe principles, reactions and reagents for each method studied;
- Relate test results to other patient information to the extent required for understanding the analyses;
- Demonstrate behavior and attitudes consistent with those of laboratory professionals.

The Medical Laboratory Technician Program is accredited by NAACLS, The National Accrediting Agency for Clinical Laboratory Sciences. The Program was most recently awarded continuing accreditation for ten years on October 31, 2020.
5600 N. River Rd.
Suite 720
Rosemont, IL 60018
phone: 733-714-8880
website: www.naacls.org

It is the mission of the MLT program to respond to the needs of the community by educating students to perform a wide variety of clinical laboratory procedures and prepare these students to perform competently as Medical Laboratory Technicians upon graduation.

Program Curriculum

General Education Requirements

CMS 110 or CMS 120 - Speech Communication or Public Speaking.....3
ENG 101 - English Composition I.....3
Elective - Aesthetic Sensibility.....3
HCP 120 - Ethical Issues Affecting Consumers and the Health Care Professions.....3
SOC 101 - Introduction to Sociology.....3

Major Requirements

BIO 130 - Introductory Anatomy and Physiology.....4
BIO 141 - Clinical Microbiology I.....4
BIO 241 - Clinical Microbiology II.....4
BIT 124 - Molecular Techniques.....2
CHE 131 - Chemistry for the Technologies I.....4
CHE 132 - Chemistry for the Technologies II.....4
MLT 110 - Introduction for the MLT.....4
MLT 123 - Immunohematology Lecture.....2
MLT 124 - Immunohematology Lab.....1
MLT 125 - Hematology Lecture.....2
MLT 126 - Hematology Lab.....1
MLT 233 - Clinical Chemistry Lecture.....3
MLT 234 - Clinical Chemistry Lab.....2
MLT 235 - Clinical Practicum in MLT 1.....3
MLT 244 - Professional Issues in MLT.....2
MLT 245 - Clinical Practicum in MLT II.....6
MLT 246 - MLT Seminar.....1

TOTAL PROGRAM CREDITS: 64

MEDICAL OFFICE ASSISTANT (CERTIFICATE OF COMPLETION)

Purpose

The one semester, 16-credit Medical Office Assistant Certificate of Completion provides students with the opportunity to build a comprehensive foundation in administrative medical office assistant skills. Students will develop competency in the performance of medical office administrative procedures and develop the critical thinking skills required to seek employment and work effectively in the medical office environment. Successful completion of the Medical Office Assistant Certificate of Completion provides eligibility to complete a national Medical Office Assistant certification examination.

Program Outcomes

- Perform administrative duties in a medical office environment;
- Develop critical thinking skills and use them to evaluate legal and ethical issues in the health care.
- Manage electronic health record (EHR) software and use computer applications in the medical office

Upon receiving the Medical Office Assistant Certificate of Completion, you may take the national Medical Office Assistant certification exam. This certificate can also be applied to the Health Services Management Degree.

Program Curriculum

HCP 224 - Medical Terminology.....3
HCP 114/MAS-114 - Medical Law and Ethics.....3
HCP 100 - Medical Office Technologies and the EHR.....3
HCP 117/MAS-117 - Medical Office Administration.....4
HCP 104/MAS-104/BIO-104 - The Human Body in Health and Disease.....3

TOTAL PROGRAM CREDITS: 16

NURSING (A.A.S.)

Program Outcomes

- Incorporate nursing knowledge to meet health care needs in clients of diverse communities across the lifespan.
- Demonstrate clinical reasoning and judgment using the nursing process, in the delivery of safe effective evidence-based care in a variety of environments.
- Utilize professional communication, promote inter-professional teamwork, and collaboration to achieve quality client care while recognizing differences and preserving self-worth.
- Exhibit behaviors that reflect values of caring and professional nursing practice.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
ENG 102 - English Composition II.....3
ESW 206 - Basic Nutrition.....3
MAT 106 - Mathematics Applications.....3

PSY 101 - Introduction to Psychology..... 3
PSY 206 - Human Development - A Life-Span Approach.....3
SOC 101 - Introduction to Sociology..... 3
Aesthetic Sensibility - Aesthetic Sensibility Elective.....3

Major Requirements
BIO 131 - Human Anatomy & Physiology I (minimum grade of "C" required).....4
BIO 132 - Human Anatomy & Physiology II (minimum grade of "C" required).....4
BIO 140 - Microbiology and Immunology.....4
NUR 108 - Introduction to Concepts of Nursing.....2
NUR 114 - Concepts of Nursing I: Promoting Wellness in the Individual and CommunityE..... 6
NUR 115 - Concepts of Nursing II: Caring for the Adult Client with Acute and Chronic Illnesses.....3
NUR 116 - Concepts of Nursing III: Caring for Children and Child-Bearing Families.....3
NUR 215 - Concepts of Nursing IV: Caring for the Adult Client with Complications Associated with Acute and Chronic Illness..... 7
NUR 216 - Concepts of Nursing V: Clinical Decision Making.....2
NUR 217 - Concepts of Nursing VI: Caring for the Client Across the Lifespan Experiencing Life-Threatening Health Care Needs..... 6
NUR 218 - Transition to Professional Nursing Practice..... 3

Accreditation
The Dr. Stuart H. & Sandra K. Fine Nursing Program is accredited by the Accreditation Commission for Education in Nursing (ACEN) and holds full approval from the Pennsylvania State Board of Nursing in Harrisburg, PA.

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE
Suite 850
Atlanta, GA 30326
website: acenursing.org

The Dr. Stuart H. & Sandra K. Fine Nursing Program is on the Commonwealth of Pennsylvania's State Board of Nursing's Approved List of Professional Nursing Programs with FULL approval status.

Commonwealth of Pennsylvania's State Board of Nursing
P.O. Box 2649
Harrisburg, PA 17105-2649

TOTAL PROGRAM CREDITS: 68

PERSONAL TRAINING (CERTIFICATE)

Purpose
The Personal Training Certificate program provides a comprehensive curriculum and educational experience for students who wish to enter the personal training field. The program provides the educational and experiential learning required to complete the American College of Sports Medicine (ACSM) Personal Trainer Examination. During the final semester of the program, students will sit for the ACSM Personal Trainer Examination. The program provides the student with a strong theoretical base as well as practical experience and a practicum in an educational fitness setting. Graduates of the Personal Training Certificate program will have the competencies and experience expected for employment in an entry-level personal training position. Upon successful completion of the Personal Training Certificate program, students also have the option to continue their education in this field.

Program Curriculum
BIO 129 - Functional Human Anatomy and Physiology (grade of "C" or better).....4
ESW 146 - Weight Training, Conditioning, and Weight Control..... 2
ESW 206 - Basic Nutrition..... 3
ESW 222 - Applied Kinesiology (offered Fall only)..... 3
ESW 224 - Exercise Physiology (offered Fall only).....4
ESW 226 - Assessment of Human Fitness (offered Fall only)..... 3
ESW 151 - Fundamentals of Functional Training..... 2
ESW 227 - Exercise Programming for Healthy and Special Populations (offered Spring only).....3
ESW 236 - Personal Health and Wellness..... 3
ESW 296 - Practicumin Exercise Science and Wellness (offered Spring only)..... 4

TOTAL PROGRAM CREDITS: 31

PHLEBOTOMY (CERTIFICATE OF COMPLETION)

Purpose
The one semester Phlebotomy Certificate of Completion program is designed to give the student instruction in the field of Phlebotomy. Phlebotomy technicians, who are members of the clinical laboratory team, are responsible for obtaining quality specimens for diagnostic laboratory testing. The specimens are analyzed which in turn aids the physician in the diagnosis, monitoring and treatment of the patient. Therefore, this makes the phlebotomist an important part ofthe healthcare team. Additionally, students are trained in adult Cardiopulmonary Resuscitation (CPR). The Phlebotomy program is approved by the National Accrediting Agency for Clinical Laboratory Sciences.* Persons successfully completing this course are eligible to sit for the Phlebotomy Technician (PBT) examination given by the American Society for Clinical Pathology.

Program Outcomes
- Learn the technical skills needed to competently and safely collect and handle blood specimens from a variety of patients;
- Develop good interpersonal skills and learn how to work well with others;
- Gain the knowledge needed to pass national certification exams.

Program Curriculum
MLT 106 - Phlebotomy.....4

TOTAL PROGRAM CREDITS: 4

PHYSICAL THERAPIST ASSISTANT (A.A.S.)

Purpose
The Physical Therapist Assistant Program provides a quality, comprehensive program of study that prepares ethical, competent entry-level physical therapist assistants (PTAs), who provide evidence-based interventions. This is accomplished through a supportive learning environment that integrates sequential instruction and full-time practical clinical experiences. Graduates are prepared to take the Physical Therapist Assistant National Physical Therapy Examination for State certification / licensure and to demonstrate values-based behavior while effectively and efficiently assisting physical therapists serving the diverse population of Montgomery County and surrounding communities. PTAs work under the

direction and supervision of a physical therapist and are employed in such settings as hospitals, nursing homes, home health agencies, rehabilitation centers, school systems, sports medicine facilities, and private practices.

Program Outcomes

- Demonstrate proficient entry-level knowledge and skills in safely, effectively and efficiently implementing a physical therapist established comprehensive plan of care;
- Adhere to the legal, ethical and professional regulations and standards that determine the scope of practice of physical therapy and perform physical therapy duties within the PTA scope of practice;
- Communicate effectively with sensitivity and awareness of individual differences with patients, families, colleagues, and other healthcare providers;
- Exhibit observable behaviors that indicate a commitment to PTA values-based behaviors.

At the end of the program you will be prepared to take the Physical Therapist Assistant National Physical Therapy Examination for state certification/licensure. You will also be able to demonstrate values-based behavior while effectively and efficiently assisting physical therapists who serve the diverse population of Montgomery County and surrounding communities. PTAs work under the direction and supervision of physical therapists. They are employed in such settings as hospitals, nursing homes, home health agencies, rehabilitation centers, school systems, sports medicine facilities and private practices.

Accreditation

The Physical Therapist Assistant Program at Montgomery County Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE): Commission on Accreditation in Physical Therapy Education
3030 Potomac Ave., Suite 100
Alexandria, VA, 22305-3085
phone: 703-706-3245
email: **accreditation@apta.org**
website: **http://capteonline.org**If needing to contact the program/institution directly, please call 215-641-6622 or email **bsacks@mc3.edu**.

Program Curriculum

Pre-Technical Phase

First Semester

BIO 131 - Human Anatomy & Physiology I (1st 6 weeks).....4
ENG 101 - English Composition I (1st 6 weeks).....3
BIO 132 - Human Anatomy & Physiology II (2nd 6 weeks).....4
MAT 106 - Math Applications (2nd 6 weeks).....3
14 Credit Hours

Second Semester

THA 105 - Introduction to Acting I: Improvisation and Fundamentals.....3
PHY 115 - Technical Physics.....4
PSY 206 - Human Development – A Life-Span Approach.....3
ESW 222 - Applied Kinesiology (offered fall only).....3
ESW 224 - Exercise Physiology (offered fall only).....4
17 Credit Hours

Technical Phase

Technical Phase (Petition for Admission and program acceptance required)

Third Semester

PTA 100 - Fundamentals of Physical Therapist Assisting and Data Collection (1st 7 weeks).....4
PTA 110 - Therapeutic Modalities in Physical Therapy (1st 7 weeks).....4
PTA 125 - Therapeutic Interventions for Physical Therapist Assisting.....4
12 Credit Hours

Fourth Semester

PTA 200 - Pathology & Rehabilitation of Orthopedic Conditions Across the Lifespan and Continuum of Care.....5
PTA 201 - Physical Therapist Assistant Roles, Relationships and Responsibilities Seminar I.....2
PTA 220 - Pathology & Rehabilitation of Special Populations & Conditions Across the Lifespan and Continuum of Care.....5
12 Credit Hours

Fifth Semester

PTA 221 - Clinical Education I (1st 7-week session).....2
PTA 202 - Physical Therapist Assistant Roles, Relationships and Responsibilities Seminar II(1st 7-week session).....1
PTA 210 - Pathology & Rehabilitation of Neurological Conditions Across the Lifespan and Continuum of Care (2nd 7-week session).....6
9 Credit Hours

Sixth Semester

PTA 222 - Clinical Education II (1st 7 weeks).....2
PTA 203 - Physical Therapist Assistant Roles, Relationships and Responsibilities Seminar III (1st 7 weeks).....1
PTA 223 - Clinical Education III (2nd 7-week session).....2
PTA 204 - Physical Therapist Assistant Roles, Relationships and Responsibilities Seminar IV (2nd 7-week session).....1
6 Credit Hours

Total Semester Hours Credit: 70

Courses in the Physical Therapist Assistant Program Pre-Technical Phase and Technical Phase are listed in sequential order. All Pre-Technical courses must be completed before enrollment into the Technical Phase courses. The Pre-Technical courses BIO 131, BIO 132, PHY 115, ESW 222 and ESW 224 must be completed within five years before enrollment into the Technical Phase courses. The PTA Technical Phase is a 16 month, continuous phase consisting of four sequential semesters. Students are admitted to the Technical Phase Physical Therapist Assistant Program for the spring each year.

TOTAL PROGRAM CREDITS: 70

RADIOGRAPHY (A.A.S.)

Purpose

The Radiography Program provides a comprehensive curriculum and educational experiences for students who wish to become integral members of the health care team. The program affords each student with educational opportunities that develop competence in critical thinking, technical skills and interpersonal communication necessary for the practice of diagnostic radiography. Competence is chieved through the integrated use of lecture, laboratory activities, small group presentations, research, and clinical education experiences. Students gain proficiency in the safe application of the principles of ionizing radiation in both diagnostic and fluoroscopic procedures. The Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60602, accredits this program. Graduates are eligible to take

the national certifying examination administered by the American Registry of Radiologic Technologists (ARRT).

Program Goals

1. Prepare students to function as competent, entry-level Radiographers who meet the healthcare needs of the community.
- Students will be able to adequately perform procedures at entry level competence.
- Students will select appropriate technical factors for quality patient exams.
- Students will demonstrate proper radiation protection practices based on current research.

2. Prepare students who demonstrate appropriate, professional communication skills.
- Students will use appropriate vocabulary and language to orally convey information, concepts and ideas.
- Students will use a systematic approach to locate and use information to plan and write professional papers.

3. Prepare students who develop and practice effective problem-solving skills and critical thinking skills.
- Students will demonstrate the ability to alter technical factors in response to various changes in the clinical setting.
- Students will produce solutions to real-world clinical problems.
- Students will evaluate radiographic images for appropriate positioning and image quality.

4. Prepare students who conduct themselves in a professional manner.
- Students will recognize acceptable professional behaviors.
- Students will practice appropriate professional behaviors.
- Students will discuss the importance of networking along with professional development or career advancement.

Program Outcomes Continuously monitor program satisfaction, ARRT exam pass rates, job placement and student completion rates in compliance with JRCERT accreditation.

1. Graduates will pass the ARRT national certification on 1st attempt within 6 months of post- graduation.
2. Of those pursuing employment, graduates will be gainfully employed within 12 months post-graduation.
3. Students will complete the program within 21 months of enrollment of RAD 100.
4. Graduates will be satisfied with their education.
5. Graduates will demonstrate an overall professional demeanor in the workplace.
6. Employers will be satisfied with the graduate's performance.

The program assesses these 4 goals and their specific student learning outcomes on an annual basis. This ongoing assessment plan is housed online for all program officials to access and may be viewed at any time at the request of a student.

Although more than 60 percent of all radiography jobs are in hospitals, you can also work in physician's offices, medical and diagnostic laboratories, including diagnostic imaging centers, and outpatient care centers. Employment of radiologic technologists is expected to increase 15 percent in the next decade–faster than average for all occupations.

Additional information on advanced placement tuition and fees, student employment, transfer credits and credit for life experience, withdrawals and refunds can be obtained by contacting the Student Success Center at enrollmentservices@mc3.edu. Check the academic calendar for program dates.

Program Curriculum

General Education Requirements

CMS 110 or CMS 120 - Speech Communication or Public Speaking.....3
ENG 101 - English Composition I.....3
ENG 115 - Writing for Technical Communication.....3
Quantitative Reasoning - Quantitative Reasoning Elective: MAT 106, MAT 130, MAT 131, MAT 140, MAT 188, MAT 189, or MAT 190 or higher.....3-4
Cultural Awareness and Diversity - Any Approved Cultural Awareness and Diversity Elective.....3
PSY 101 - Introduction to Psychology.....3

Major Requirements

There is use of distance education courses within the RAD curriculum.
BIO 131 - Anatomy and Physiology I.....4
BIO 132 - Anatomy and Physiology II.....4
RAD 100 - Introduction to Radiography.....3
RAD 103 (asynchronous format) - Radiation Protection and Biology.....2
RAD 104 - Clinical Education I.....3
RAD 105 - Radiation Physics and Imaging Equipment.....3
RAD 106 - Radiographic Image Production and Analysis.....3
RAD 111 - Radiographic Procedures I.....3
RAD 114 - Clinical Education II.....3
RAD 121 - Radiographic Procedures II.....3
RAD 124 - Clinical Education III.....4
RAD 214 - Clinical Education IV.....4
RAD 221 (hybrid format: synchronous lecture and in-person lab) - Radiographic Procedures III.....3
RAD 224 - Clinical Education V.....4
RAD 230 - Radiographic Pathology[I] (Asynchronous format).....2
RAD 251 - Imaging Professionals and Professional Readiness.....3

Accreditation

The Radiography Associate of Applied Science degree program is accredited by the by the Joint Review Committee in Radiologic Technology.Length of Accreditation Award – eight (8) years.Joint Review Committee in Radiologic Technology
20 North Wacker Drive, Suite 2850
Chicago, IL 60606-3182
(312) 704-5300
email: **mail@jrcert.org**
website: **jrcert.org**Graduates are eligible to take the national certifying examination administered by the American Registry of Radiologic Technologists (ARRT).

Special Admission Requirements

Students wishing to participate in the Radiography Program must present the required credentials, and are required to meet with an academic advisor prior to enrolling in RAD 100.

Mission & Goals

The Associate in Applied Science degree in Radiography has a mission consistent with the mission of Montgomery County Community College. The program recognizes that students differ in their needs, interests, and aspirations. As a result, the program is organized to assist and prepare students for the level of technical competence required to become highly

qualified and successful radiographers. The program will provide students with meaningful educational experiences.

TOTAL PROGRAM CREDITS: 69

SURGICAL TECHNOLOGY (A.A.S.)

Purpose

The Surgical Technology AAS Program is designed to prepare graduates who function as a healthcare team member under the supervision of registered professional nurses or licensed physicians.Students learn to prepare the operating room, instruments, equipment and the patient for surgical intervention as well as acquire surgical technology operating room skills essential to maintain optimal sterile technique. The Program integrates theory, laboratory simulations and clinical experiences to guide students in achieving surgical technology competence. Surgical Technology students are competitive within the job market through completion of the national certifying examination administered by The National Board of Surgical Technology and Surgical Assisting (NBSTSA) prior to graduation. Graduates seek employment in hospital operating rooms, Physician office procedure rooms, freestanding ambulatory units, delivery rooms, sterile processing areas, and acute critical care facilities. Many surgical technologists are directly employed by surgeons and may choose to specialize in certain types of surgery. Others become sale representatives for companies and manufacturers of surgical equipment and supplies. The Surgical Technology Program is fully accredited by The Commission on Accreditation of Allied Health Education Programs (CAAHEP).

Additional information regarding CAAHEP can be obtained by contacting the organization directly at 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763, telephone 727-210-2350, www.caahep.org.

Program Outcomes

- Employ appropriate ethical and professional values when providing surgical technology services to diverse populations;
- Perform necessary activities to prepare patients for surgery utilizing the principles of aseptic technique, critical thinking, and problem solving in order to adapt to the changing surgical environment;
- Demonstrate the ability to prioritize and organize the surgical field, while considering the physiology and urgency of the patient care needs;
- Incorporate technical skills to assemble and operate instruments, equipment, and supplies for the delivery of patient care during all specialties of surgery;
- Integrate knowledge from the required courses within this program to the role of the surgical technologist in caring for diverse clients;
- Communicate clearly and effectively utilizing the most current research tools;
- Express a commitment to lifelong learning and continued professional development;
- Meet the minimum eligibility requirements for the national certifying examination administered by the NBSTSA.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I..... 3
ENG 102, ENG 115, or ENG 117 - English Composition II, Writing for Technical Communication, or Writing for Business and Industry..... 3
Elective - **Oral Communication**..... 3
Elective - Aesthetic Sensibility..... 3
Elective - Cultural Awareness and Diversity..... 3
SOC 244 - Sociology of Death and Dying..... 3

Major Requirements

BIO 131 - Anatomy and Physiology I..... 4
BIO 132 - Anatomy and Physiology II..... 4
BIO 140 - Microbiology and Immunology..... 4
SUR 105 - Surgical Technology I..... 7
SUR 106 - Surgical Technology II..... 8
SUR 205 - Surgical Technology III..... 10
SUR 206 - Surgical Technology IV..... 7

Accreditation

The Surgical Technology Program is fully accredited by The Commission on Accreditation of Allied Health Education Programs (CAAHEP). Additional information regarding CAAHEP can be obtained by contacting the organization directly. The Commission on Accreditation of Allied Health Education Programs
9355 - 113th St. N, #7709
Seminole, FL 33775
Phone: 727-210-2350
Email: **mail@caahep.org**

Special Admission Requirements

All applicants seeking admission to the Surgical Technology Program are required to present specific credentials matching programs admission guidelines. The Surgical Technology Program is a year-round, 16-month, continuous program consisting of four sequential semesters. Students are admitted to the Program in the fall each year.

Program Mission

The mission of the Surgical Technology Program is congruent with the Mission and Philosophy statement of Montgomery County Community College. The Surgical Technology program is designed to prepare a competent entry-level surgical technologist in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Recognizing student varying educational and career goals, the Surgical Technology curriculum offers an Associate in Applied Science degree through courses that are sequentially structured to provide a logical, progressive pedagogical approach to the didactic and clinical study of surgical technology.

TOTAL PROGRAM CREDITS: 62

LIBERAL STUDIES

HISTORY (A.A.)

Purpose

The College's History AA degree curriculum integrates a broad spectrum of courses in the social sciences and related disciplines to prepare students who wish to transfer to four-year colleges or universities to continue their study of history. The program is ideal for students who wish to pursue careers in education, law, Foreign Service, research, communication and information management, as well as for jobs in the Federal, state and local government and at historical sites. The program meets the competencies and requirements specified by the Pennsylvania Department of Education's

Transfer Agreement Oversight Committee (TAOC) for seamless transfer to schools in the Pennsylvania State System of Higher Education (PASSHE). The College offers History courses at both its Blue Bell Campus, Pottstown Campus as well as online.

Program Outcomes

- Engage in historical inquiry, research and analysis;
- Craft historical narrative and argument through the use of primary and secondary historical evidence;
- Analyze historical topics, trends and issues;
- Apply historical knowledge to analyze contemporary geopolitical and social trends.

Upon earning your associate degree, you can work in federal, state and local government or at historical sites. You can also transfer to a four-year college to pursue such majors as education, history, social or library sciences, law, foreign service, journalism and information management. The program meets the requirements mandated by the Pennsylvania Department of Education's Transfer Agreement Oversight Committee (TAOC) for a seamless transfer to schools in the Pennsylvania State Systems of Higher Education (PASSHE).

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
PSY 101 - Introduction to Psychology....3
Elective - MAT 106, MAT 130, MAT 140 or MAT 190....3-4
Electives - Foreign Language....6
ANT 104 or SOC 101 - Introduction to Cultural Anthropology or Introduction to Sociology....3
ENG 102 - English Composition II....3
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
Elective - Scientific Reasoning....4
Elective - Technological Fluency....3
Elective - Aesthetic Sensibility....3
Elective - Open Elective....3

Major Requirements

Elective - GEO 110, GEO 130 or GEO 135....3
Electives - History Electives....6
HIS 101 - History of Western Civilization I....3
HIS 102 or HIS 122 - History of Western Civilization II or World Civilizations II: From 1500....3
HIS 203 - History of the U.S. to 1877....3
HIS 205 - History of the U.S. from 1877....3
POL 101 or POL 124 - Introduction to Political Science or American National Government....3

TOTAL PROGRAM CREDITS: 61-62

LIBERAL STUDIES (A.A.)

Purpose

The Liberal Studies program is designed primarily for those students who plan to transfer to a four-year institution but who remain undecided about a major.

Program Outcomes

- Communicate effectively in writing and speech;
- Solve problems using mathematical concepts and scientific reasoning;
- Analyze ideas about intellectual heritage, artistic expression, the natural and physical world, human behavior, the use of information and technology;
- Examine global perspectives and diverse cultural values;
- Apply ethical perspectives to inform decisions; and
- Think critically across disciplines and with respect to one's own educational goals.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
FYE 101 - First Year Experience....3
Elective - **Oral Communication**....3
Elective - Quantitative Reasoning (students may not use the following courses to fulfill this requirement: MAT 100, MAT 103, MAT 104, MAT 108, or ACC 110)....3-4
Program Elective - One of ECO 121, ECO 122, ESW 207, GEO 110, GEO 130, POL 101, POL 124, PSY 101, PSY 137, or SOC 101....3
Program Elective - One of HIS 101, HIS 102, HIS 203, or HIS 205....3
Elective - Scientific Reasoning (students must choose a four-credit lab science)....4
Elective - Aesthetic Sensibility....3
Elective - Cultural Awareness and Diversity....3
Elective - Ethical Perspectives....3
Program Elective - One of ANT 101, ANT 104, ANT 205, GEO 110, GEO 130, HIS 121, HIS 122, HIS 219, HIS 234, HIS 235, HIS 237, HIS 250, HIS 260, IDS 115, MUS 114, PHI 215 or any World Language course (any level of ARA, CHI, FRE, GER, ITA, JPN, SPA)....3

Electives

Electives - Electives....24

TOTAL PROGRAM CREDITS: 61-63

PUBLIC & SOCIAL SERVICES

ADDICTIONS (A.A.S.)

Purpose

The Associate of Applied Science (AAS) degree in Human Services is designed to prepare graduates for careers as human service professionals in mental health agencies, developmental disability programs, addictions programs, public and private schools for the disabled, and programs for the aging. Employment opportunities include case management, youth and family support professional, social services coordinator, residential counselor, behavioral management aid, addictions specialist, child advocate, juvenile court liaison, domestic violence liaison, home health aide, group home professional, crisis intervention specialist, community education coordinator, program coordinator, adult day care assistant or coordinator, life skills instructor, consumer advocate, social service aide, therapeutic recreation assistant, intake interviewer, community outreach worker, social work assistant, community action professional, halfway house coordinator, rehabilitation case professional, residential manager, and volunteer coordinator.

Program Outcomes

- Demonstrate the knowledge and skills needed to work in direct service delivery in human service agencies and programs;
- Illustrate a clear understanding of human behavior in all age groups;
- Explain and apply appropriate skills necessary for a micro/macro perspective in human service delivery systems;
- Assess and summarize concepts of psychological and sociological theories necessary for intervention techniques.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
ENG 102 - English Composition II.....3
Elective - Quantitative Reasoning.....3
Elective - Aesthetic Sensibility.....3
Elective - Scientific Reasoning.....4

Major Requirements

HSW 101 - Introduction to Human Services.....3
HSW 102 - Theories of Group Counseling.....3
HSW 105/SOC-105 - Social Policy and Ethics in Human Services.....3
HSW 130 or HSW 155 - Introduction to Youth and Family or Introduction to Aging.....3
HSW 160 - The Middle Years.....3
HSW 202 - Theories of Individual Counseling.....3
HSW 203/PSY-203 - Assessment and Documentation in Human Services.....3
HSW 205 - Volunteer Administration.....3
HSW 210 - Professional Development in Human Services.....3
HSW 211 - Human Services Practicum.....6
HSW 220, HSW 250 or HSW 219 - Introduction to Adjunctive Therapies, Psychology of Aging or Drug and Alcohol Treatment Process.....3
PSY 101 - Introduction to Psychology.....3
PSY 215 - Abnormal Psychology.....3
PSY 217 - Drugs - Their Use and Abuse.....3
SOC 101 - Introduction to Sociology.....3

TOTAL PROGRAM CREDITS: 64

ADDICTIONS (CERTIFICATE)

Purpose

The Drug and Alcohol Studies Certificate is designed for students who may not wish to pursue an associate degree in Human Services at this time, for students who have previously earned college degrees in other disciplines who may be contemplating a change of career or career focus, and for those working toward their CAC which is awarded by the Pennsylvania Certification Board (PCB)*.

This program is designed with enough flexibility to meet the needs of beginning students as well as those with more experience in the substance abuse field.

Program Outcomes

- Understand human behavior across age groups;
- Select and apply psychological and sociological theories in intervention techniques;
- Explain and execute a micro/macro approach to the treatment and prevention of drug/alcohol abuse and addictions;
- Have the knowledge and skills needed to work in direct service at human service agencies.

During our two-semester program you will study social policies, theories of counseling and assessment techniques. You will also learn about drug and alcohol treatment plans and adjunctive therapies. Your coursework will prepare you for a human services practicum where you receive hands-on training at a community agency.

Program Curriculum

ENG 101 - English Composition I.....3
HSW 101 - Introduction to Human Services and Helping Profession.....3
HSW 102 or HSW 202 - Theories of Counseling or Theories of Individual Counseling.....3
HSW 203 - Assessment and Documentation in Human Services.....3
HSW 205 - Volunteer Administration.....3
HSW 210 - Professional Development in Human Services.....3
HSW 211 - Human Services Practicum.....6
HSW 219 - The Drug and Alcohol Treatment Process.....3
HSW 220 - Introduction to Adjunctive Therapies.....3
PSY 217 - Drugs - Their Use and Abuse.....3
SOC 105 - Social Policy and Ethics in Human Services.....3

Please note that you may have to take a placement assessment prior to enrolling in certain courses.

The Human Services Program is transferrable to a number of area colleges. Substitutions must be approved by the Program Coordinator.

* The Pennsylvania Certification Board (PCB) certifies both addiction counselors and prevention specialists. Course work from the program may fulfill a portion of those PCB requirements. The PCB requires Certified Addictions Counselors to complete additional hours of continuing education and training for recertification. Selected courses from this HSW program may be used for part of this requirement. For further information regarding education requirements for recertification, contact PCB at 717-540-4455.

TOTAL PROGRAM CREDITS: 36

CHILD, YOUTH AND FAMILY SERVICES (A.A.S.)

Purpose

The Associate of Applied Science (AAS) degree in Human Services is designed to prepare graduates for careers as human service professionals in mental health agencies, developmental disability programs, addictions programs, public and private schools for the disabled, and programs for the aging. Employment opportunities include case management, youth and family support professional, social services coordinator, residential counselor, behavioral management aid, addictions specialist, child advocate, juvenile court liaison, domestic violence liaison, home health aide, group home professional, crisis intervention specialist, community education coordinator, program coordinator, adult day care assistant or coordinator, life skills instructor, consumer advocate, social service aide, therapeutic recreation assistant, intake interviewer, community outreach worker, social work assistant, community action professional, halfway house coordinator, rehabilitation case professional, residential manager, and volunteer coordinator.

Program Outcomes

- Demonstrate the knowledge and skills needed to work in direct service delivery in human service agencies and programs;
- Illustrate a clear understanding of human behavior in all age groups;

- Explain and apply appropriate skills necessary for a micro/macro perspective in human service delivery systems;
- Assess and summarize concepts of psychological and sociological theories necessary for intervention techniques.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
Elective - Quantitative Reasoning....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....4

Major Requirements

CJS 235 - The Juvenile Justice System....3
HSW 101 - Introduction to Human Services....3
HSW 102 - Theories of Group Counseling....3
HSW 105/SOC-105 - Social Policy and Ethics in Human Services....3
HSW 130 or HSW 155 - H Introduction to Youth and Family or Introduction to Aging....3
HSW 202 - Theories of Individual Counseling....3
HSW 203/PSY-203 - Assessment and Documentation in Human Services....3
HSW 205 - Volunteer Administration....3
HSW 210 - Professional Development in Human Services....3
HSW 211 - Human Services Practicum....6
HSW 216/PSY-216 - Assessment Techniques for Child/Youth....3
HSW 220 - Introduction to Adjunctive Therapies....3
PSY 101 - Introduction to Psychology....3
PSY 215 - Abnormal Psychology....3
SOC 101 - Introduction to Sociology....3

TOTAL PROGRAM CREDITS: 64

CRIMINAL JUSTICE (A.S.)

Purpose

The Criminal Justice Studies A.S. Program is a theory and knowledge based curriculum that offers comprehensive preparation for transfer to a four-year baccalaureate program in Criminal Justice, as well as a wide range of career options in the criminal justice system.

Many of our students either go on to, or come to us from, Act 120 municipal police training or Act 2 deputy sheriffs' training. Our graduates pursue careers in local law enforcement, the federal services, corrections, adult and juvenile probation and parole, court administration, and the private security sector.

Many of our graduates go on to attain four-year degrees in criminal justice or allied fields of study. Some pursue pre-law, law school, and eventual careers in the prosecutorial or criminal defense bars.

The Criminal Justice AS curriculum introduces students to the rewards of public service and to the personal satisfaction and honor that a career in public service can offer.

The curriculum also offers in-service professionals already in the field, an opportunity for further educational and professional growth.

Program Outcomes

- Demonstrate an appreciation of and sensitivity toward the ethnic, racial and gender diversity of American society, and an understanding of how these values can be reflected and projected by the criminal justice system;
- Demonstrate a thorough understanding of the functions and roles of all major aspects of the United States criminal justice system in society;
- Demonstrate an appreciation of the cardinal concept of "due process of law" which constitutes the basic standards of fairness and decency that are necessary for the maintenance of free society and an understanding of the constitutional underpinnings, theory and structure of our body of criminal law, procedure, and the rules of evidence;
- Demonstrate a firm grasp of the constitutional constraints under which police and prosecutors must operate in a free society, and the reasoning behind these limitations;
- Identify and analyze the ethical issues that arise in each component of the criminal justice system.

Because Montco meets the requirements of the Pennsylvania Department of Education's Transfer Agreement Oversight Committee (TAOC), you can seamlessly transfer your credits to schools in the Pennsylvania State System of Higher Education (PASSHE). We will work with you to ensure success in whatever path you choose.

Program Curriculum

General Education Requirements

CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
ENG 101 - English Composition I....3
ENG 115 or ENG 102 - Writing for Technical Communication or English Composition II....3
MAT 106 - Mathematics Applications....3
Elective - Aesthetic Sensibility....3
Scientific Reasoning Elective - AST 120 or GLG 121 or PHY 120, BIO 121, CHE 121, CHE 151, PHY 21 or PHY 151....4

Major Requirements

CJS 100 - Introduction to Criminal Justice....3
CJS 105 - Criminal Law....3
CJS 107 - Criminal Procedure and Rules of Evidence....3
CJS 205 - Ethics and the American Criminal Justice System....3
CJS 220 - Criminology....3
CJS 235 - Introduction to Juvenile Justice System....3
CJS 240 - The Correctional Process....3
CJS Elective - CJS Elective....3
ESW 245 - Safety and First Aid....3
HIS 203 - History of the U.S. to 1877....3
HIS 205 - History of the U.S. from 1877....3
POL 124 - American National Government....3
SOC 101 - Introduction to Sociology....3

Electives

Elective - Elective....6

TOTAL PROGRAM CREDITS: 64

GERONTOLOGY (CERTIFICATE)

Purpose

The Gerontology Certificate program is designed to prepare graduates for human services careers in programs, facilities, and agencies for the older adult. These include: administrator, activities director, adult day care provider, adult education teacher, case worker, consumer advocate, counselor, estate financial planner, family service consultant, geriatric mental health worker, gerontological social worker, human resource

specialist, industrial gerontologist, insurance specialist, retirement home director, program planner, researcher, senior center manager, senior employment specialist, social service consultant, social security specialist, and volunteer coordinator.

Program Outcomes

- Demonstrate all of the skills and knowledge needed to obtain entry level employment in an agency or facility for the older adult.

Program Curriculum

ENG 101 - English Composition I.....3
HSW 101 - Introduction to Human Services and Helping Profession.....3
HSW 155 - Introduction to Aging.....3
HSW 203/PSY-203 - Assessment and Documentation in Human Services.....3
HSW 205 - Volunteer Administration.....3
HSW 206 - Hospice: Concepts and Skills.....3
HSW 210 - Professional Development in Human Services.....3
HSW 211 - Human Services Practicum.....6
HSW 250 - Psychology of Aging.....3
HSW 254 - Aging in American Society.....3
SOC 105 - Social Policy and Ethics in Human Services.....3

TOTAL PROGRAM CREDITS: 36

GIS OPERATIONS (CERTIFICATE)

Purpose

Fascinated by mapping and the capture, manipulation and analysis of geographic information, Consider earning a GIS Operations Certificate of Completion. In just three courses and nine credits you will learn how to operate geographic information systems (GIS) while using ESRI'scutting edge ArcGIS software.

Program Outcomes

- Articulate in writing Geographic Information System (GIS) concepts, components, and requirements; and spatial analytic processes, cartographic design processes, and their results;
- Evaluate in writing various data sources' resolution, timeliness, availability and utility, and various map projections, map symbols, and GIS map products;
- Geo-code street addresses and latitude/longitude coordinates, and demonstrate knowledge of other geo-coding systems including Universal Transverse Mercator, State Plane Coordinate Systems, U.S. Public Lands Survey, and image geo-referencing;
- Predict local risks and resources by conducting geographic analysis through selection by location, intersection and union overlays, cluster analysis, absolute and relative distance measures, and surface interpolation in GIS;
- Apply "best" design standards for a variety of map symbols, through the design, compilation, and production of thematic maps that are physiologically accessible and psychologically meaningful.

By the end of the program, you will not only have a certificate but also an electronic portfolio of your mastery of GIS.

Program Curriculum

GEO 210 - Introduction to GIS.....3
GEO 220 - Map Design in GIS.....3
GEO 230 - GIS Applications Workshop.....3

TOTAL PROGRAM CREDITS: 9

HUMAN SERVICES (A.A.S.)

Purpose

The Associate of Applied Science Degree in Human Services is designed to prepare graduates for careers as human service professionals in mental health agencies, developmental disability programs, addictions programs, public and private schools for the disabled, and programs for the aging.

Employment opportunities include case management, youth and family support professional, social services coordinator, residential counselor, behavioral management aid, addictions specialist, child advocate, juvenile court liaison, domestic violence liaison, home health aide, group home professional, crisis intervention specialist, community education coordinator, program coordinator, adult day care assistant or coordinator, life skills instructor, consumer advocate, social service aide, therapeutic recreation assistant, intake interviewer, community outreach worker, social work assistant, community action professional, halfway house coordinator, rehabilitation case professional, residential manager, and volunteer coordinator.

Program Outcomes

- Demonstrate the knowledge and skills needed to work in direct service delivery in human service agencies and programs;
- Illustrate a clear understanding of human behavior in all age groups;
- Explain and apply appropriate skills necessary for a micro/macro perspective in human service delivery systems;
- Assess and summarize concepts of psychological and sociological theories necessary for intervention techniques.

Depending upon your interests, you may pursue a concentration in Addictions, Gerontology or Children, Youth and Family Services.

Human Services courses are offered through accelerated, online, hybrid and traditional classroom formats. The Human Services Program is a career program designed for easy transfer to local colleges and universities for bachelor's and/or master's degree programs.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
ENG 102 - English Composition II.....3
Elective - Quantitative Reasoning.....3
Elective - Aesthetic Sensibility.....3
Elective - Scientific Reasoning.....4

Major Requirements

HSW 101 - Introduction to Human Services.....3
HSW 102 - Theories of Group Counseling.....3
HSW 105 or SOC 105 - Social Policy and Ethics in Human Services.....3
HSW 130 or HSW 155 - Introduction to Youth and Family or Introduction to Aging.....3
HSW 160, PSY 217, HSW 216 or HSW 254 - The Middle Years, Drug-Use and Abuse, Assessment Techniques for Child/Youth or Aging in the U.S.....3
HSW 202 - Theories of Individual Counseling.....3
HSW 203 or PSY 203 - Assessment and Documentation in Human Services.....3

HSW 205 - Volunteer Administration....3
HSW 206, HSW 220, PSY 217 or PSY 206 - Hospice, Introduction to Adjunctive Therapies, Drug-Use and Abuse or Lifespan Development....3
HSW 210 - Professional Development in Human Services....3
HSW 211 - Human Services Practicum....6
HSW 220, HSW 250 or HSW 219 - Introduction to Adjunctive Therapies, Psychology of Aging or Drug and Alcohol Treatment Process....3
PSY 101 - Introduction to Psychology....3
PSY 215 - Abnormal Psychology....3
SOC 101 - Introduction to Sociology....3

TOTAL PROGRAM CREDITS: 64

HUMAN SERVICES (CERTIFICATE)

Purpose

The Certificate in Human Services is designed to prepare graduates for entry-level human services careers in a variety of community settings. The certificate provides sufficient flexibility to meet the needs of beginning students as well as those working in the human services field.

Program Outcomes

- Demonstrate the knowledge and skills needed to work in direct service delivery in human service agencies and programs;
- Illustrate a clear understanding of human behavior in all age groups;
- Explain and apply appropriate skills necessary for a micro/macro perspective in human service delivery systems;
- Assess and summarize concepts of psychological and sociological theories necessary for intervention techniques.

Program Curriculum

ENG 101 - English Composition I....3
HSW 101 - Introduction to Human Services and Helping Profession....3
HSW 102 or HSW 202 - Theories of Group Counseling or Theories of Individual Counseling....3
HSW 203 or PSY 203 - Assessment and Documentation in Human Services....3
HSW 205 - Volunteer Administration....3
HSW 210 - Professional Development in Human Services....3
HSW 211 - Human Services Practicum....6
PSY 101 - Introduction to Psychology....3
SOC 101 - Introduction to Sociology....3
SOC 105 - Social Policy and Ethics in Human Services....3

Note: Students may have to take placement tests prior to enrolling in some of the courses above. Please see College Catalog for placement guidelines.

TOTAL PROGRAM CREDITS: 33

HUMAN SERVICES - GERONTOLOGY (A.A.S.)

Purpose

The Associate of Applied Science (AAS) degree in Human Services is designed to prepare graduates for careers as human service professionals in mental health agencies, developmental disability programs, addictions programs, public and private schools for the disabled, and programs for the aging. Employment opportunities include case management, youth and family support professional, social services coordinator, residential counselor, behavioral management aid, addictions specialist, child advocate, juvenile court liaison, domestic violence liaison, home health aide, group home professional, crisis intervention specialist, community education coordinator, program coordinator, adult day care assistant or coordinator, life skills instructor, consumer advocate, social service aide, therapeutic recreation assistant, intake interviewer, community outreach worker, social work assistant, community action professional, halfway house coordinator, rehabilitation case professional, residential manager, and volunteer coordinator.

Program Outcomes

- Demonstrate the knowledge and skills needed to work in direct service delivery in human service agencies and programs;
- Illustrate a clear understanding of human behavior in all age groups;
- Explain and apply appropriate skills necessary for a micro/macro perspective in human service delivery systems;
- Assess and summarize concepts of psychological and sociological theories necessary for intervention techniques.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
Elective - Quantitative Reasoning....3
Elective - Aesthetic Sensibility....3
Elective - Scientific Reasoning....4

Major Requirements

HSW 101 - Introduction to Human Services....3
HSW 102 - Theories of Group Counseling....3
HSW 105 or SOC 105 - Social Policy and Ethics in Human Services....3
HSW 155 - Introduction to Aging....3
HSW 160, PSY 217, HSW 216 or HSW 254 - The Middle Years, Drug-Use and Abuse, Assessment Techniques for Child/Youth or Aging in the U.S....3
HSW 202 - Theories of Individual Counseling....3
HSW 203 or PSY 203 - Assessment and Documentation in Human Services....3
HSW 205 - Volunteer Administration....3
HSW 206 - Hospice: Concepts and Skills....3
HSW 210 - Professional Development in Human Services....3
HSW 211 - Human Services Practicum....6
HSW 250 or PSY 250 - Psychology of Aging: Helping Skills....3
PSY 101 - Introduction to Psychology....3
PSY 215 - Abnormal Psychology....3
SOC 101 - Introduction to Sociology....3

TOTAL PROGRAM CREDITS: 64

PSYCHOLOGY (A.S.)

Purpose

The Psychology A.S. program is designed to prepare students for transfer to a four-year college or university as a psychology major. By integrating a broad spectrum of courses in psychology and other disciplines, the curriculum prepares students for continued study in preparation for advanced degrees and a variety of careers.

Program Outcomes

- Evaluate research methods and conclusions derived from that research;
- Apply psychological knowledge (concepts, theories, and research) to self-understanding and problem-solving;

- Differentiate the contributions of culture, individual experience, physiology, and development that may influence human behavior and experience;
- Apply the key assumptions of the major theoretical frameworks in psychology to the understanding of human behavior.

Montco's range of classes in psychology, social sciences and the liberal arts enables you to transfer seamlessly to a four-year institution. With a foundation in psychology you can pursue an array of advanced degrees and careers. Talk to an advisor to learn more about careers in psychology.

To accommodate our students' schedules, we offer this program's coursework at Montco's Blue Bell and Pottstown Campuses as well as online.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
HIS 101 - History of Western Civilization I....3
HIS 102 - History of Western Civilization II....3
MAT 106 - Mathematics Applications....3
Elective - Technological Fluency....3
SOC 101 or ANT 104 - Introduction to Sociology or Cultural Anthropology....3
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
BIO 120 or BIO 121 - Concepts of Biology or General Biology I....4
Elective - Foreign Language Elective....3
Elective - Aesthetic Sensibility....3

Major Requirements

Electives - PSY Electives....9
MAT 130 - Probability and Statistics....4
POL 124 - American National Government....3
PSY 101 - Introduction to Psychology....3
PSY 206 - Human Development....3
PSY 215 - Abnormal Psychology....3
PSY 231 - Research Methods in Psychology....3

TOTAL PROGRAM CREDITS: 63

PUBLIC HEALTH (A.S.)

Purpose

This transfer program is designed to prepare students with the solid foundation necessary for successful advancement of study in public health particularly as it relates to the roles of health educator and health administrator. Applying population perspectives, students examine social, environmental, and behavioral determinants of health in the prevention and control of disease.

Program Outcomes

- Apply public health principles to public health related issues;
- Analyze how the perspectives and values held by diverse individuals, communities, and cultures impact health behaviors, health decisions, and health practices;
- Analyze the ethical problems, ambiguities, controversies, and assumptions in public health practices, systems, and policies;
- Prepare a plan for continuing education within Public Health.

Program Curriculum

General Education Requirements

CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
MAT 106 - Mathematics Applications....3
Technological Fluency - Technological Fluency Elective....3
Aesthetic Sensibility - Aesthetic Sensibility Elective....3

Major Requirements

BIO 115 - Environmental Biology....3
BIO 121 - General Biology I....4
ESW 206 - Basic Nutrition....3
ESW 236 - Personal Health and Wellness....3
MAT 131 - Introduction to Statistics I....3
PBH 101 - Introduction to Public Health....3
PBH 102 - Communication in Public Health....3
PBH 200 - Public Health Education....3
PBH 201 - Public Health Administration and U.S. Healthcare System....3
PBH 202 - Environmental Health....3
SOC 101 - Introduction to Sociology....3
SOC 103 - Social Problems....3

Electives

Electives - Electives....6

TOTAL PROGRAM CREDITS: 61

PUBLIC SAFETY ADMINISTRATION (A.S)

Purpose

The Public Safety Administration program incorporates study in a variety of public safety disciplines including criminal justice, fire science, public health, and emergency management and planning. The program prepares students for certain entry-level employment as well as for transfer to baccalaureate programs in public safety administration and related fields.

Program Outcomes

- Demonstrate mastery of theory and practice of public safety administration.
- Demonstrate leadership through efficient group and task management.
- Make effective, principled public safety decisions in diverse and dynamic situations.
- Differentiate between public and private resources to effectively meet public safety goals.
- Integrate organizational dynamics through multiple public safety perspectives in real world situations.

Program Curriculum

General Education Requirements

CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
ENG 101 - English Composition I....3
ENG 102 or ENG 115 - English Composition II or Writing for Technical Communication....3
Elective - Aesthetic Sensibility....3
Elective - Cultural Awareness and Diversity Elective: HIS 101, HIS 102, HIS 122, HIS 203, HIS 205, HIS 214, or HIS 218....3
GLG 115 - Environmental Geology....4

MAT 106 - Math Applications....3
MGT 113 - Conflict Resolution and Negotiation....3
PSY 137 - Introduction to Organizational Psychology....3

Major Requirements
CJS 100 - Introduction to Criminal Justice....3
ECO 110 - Elements of Economics....3
PBH 101 - Introduction to Public Health....3
POL 125 - American State and Local Government....3
PSA 100 - Introduction to Public Safety Administration....3
PSA 101 - Public Safety Technology....3
PSA 102 - Fire Department Organization and Administration....3
PSA 200 - Public Safety Incident Management....3
PSA 201 - Leadership Influence in Public Safety Administration....3

Electives
Electives - Open Electives....6

Full-time sample course schedule
Semester 1
PSA 100 - Introduction to Public Safety Administration....3
MAT 106 - Math Applications....3
ENG 101 - English Composition I....3
CJS 100 - Introduction to Criminal Justice....3
HIS Elective - Select one of the following: HIS 101, HIS 102, HIS 122, HIS 203, HIS 205, HIS 214 or HIS 218....3
Semester 2
PSA 101 - Public Safety Technology....3
ENG 102 or ENG 115 - English Composition II or Writing for Technical Communication....3
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
PSA 102 - Fire Department Organization and Administration....3
MGT 113 - Conflict Resolution and Negotiation....3
Semester 3
PSA 200 - Public Safety Incident Management....3
PBH 101 - Introduction to Public Health....3
GLG 115 - Environmental Geology....4
Elective - Open Elective....3
Elective - Aesthetic Sensibility....3
Semester 4
PSA 201 - Leadership Influence in Public Safety Administration....3
ECO 110 - Elements of Economics....3
PSY 137 - Introuduction to Organizational Psychology....3
POL 125 - American State and Local Government....3
Elective - Open Elective - suggested courses: CJS 240, CJS 235, CJS 251, CMS 125 or CMS 230....3

Part-time sample course schedule
Semester 1
PSA 100 - Introduction to Public Safety Administration....3
ENG 101 - English Composition I....3
MAT 106 - Math Applications....3
Semester 2
PSA 101 - Public Safety Technology....3
ENG 102 or ENG 115 - English Composition II or Writing for Technical Communication....3
CJS 100 - Introduction to Criminal Justice....3
Semester 3
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
HIS Elective - Select one of the following: HIS 101, HIS 102, HIS 122, HIS 203, HIS 205, HIS 214 or HIS 218....3
Semester 4
GLG 115 - Environmental Geology....4
PBH 101 - Introduction to Public Health....3
Elective - Open Elective....3
Semester 5
PSA 102 - Fire Department Organization and Administration....3
MGT 113 - Conflict Resolution and Negotiation....3
POL 125 - American Sate and Local Government....3
Semester 6
Elective - Aesthetic Sensibility....3
PSY 137 - Introduction to Organizational Psychology....3
Semester 7
PSA 200 - Public Safety Incident Management....3
ECO 110 - Elements of Economics....3
Semester 8
PSA 201 - Leadership Influence in Public Safety Adminstration....3
Elective - Open Elective - suggested courses: CJS 240, CJS 235, CJS 251, CMS 125 or CMS 230....3

TOTAL PROGRAM CREDITS: 61

SCIENCE & MATH

BIOTECHNOLOGY (A.A.S.)

Purpose
The program is designed to prepare students through rigorous study for employment in entry-level positions available at biotechnology and pharmaceutical companies, as well as research and quality control laboratories. The areas for career opportunities include but are not limited to basic research in a drug discovery or an academic environment, manufacturing, and clinical development. The program is intended to build upon basic principles of biology and chemistry acquired at the high school and early college level. Graduates are prepared for positions as biotechnology, laboratory or biomanufacturing technicians. With advising, graduates may also transfer into 4-year Biotechnology, Biochemistry or Biomedical programs.

Program Outcomes
- Demonstrate a theoretical and practical (i.e., hands-on) knowledge of state-of-the-art tools used in biotechnology laboratories, including molecular and cellular biological techniques and use of various laboratory instrumentation;
- Demonstrate an understanding of the biotechnology process, from identification of a molecule involved in a disease process to the end-stage marketing of a product;
- Demonstrate thorough knowledge of the biotechnology manufacturing process;
- Demonstrate potential for teamwork, and good oral and written communication skills;
- Demonstrate familiarity with the types of career opportunities available in the biotechnology industry.

Program Curriculum (Transfer Pathway)
General Education Requirements
ENG 101 - English Composition I....3
ENG 102 - English Composition II....3

MAT 161 - Pre-Calculus I....4
CMS 120 - Public Speaking....3
MAT 130 or MAT 131 - Probability and Statistics or Introduction to Statistics I....3 - 4
Elective - Aesthetic Sensibility....3
Elective - Cultural Awareness and Diversity....3

Major Requirements
BIO 151 - Principles of Biology I....4
BIO 152 - Principles of Biology II....4
BIT 120 - Introduction to Biotechnology....4
BIT 123 - Basic Techniques and Instrumentation for Biotechnology....4
BIT 220 - Biotechnology Research....4
BIT 232 - Biomanufacturing....4
CHE 151 - Principles of Chemistry I....4
CHE 152 - Principles of Chemistry II....4
CHE 261 - Organic Chemistry I....4
CHE 262` - Organic Chemistry II or Lab Science Elective....4

Program Curriculum (Career-Ready Pathway)

General Education Requirements
ENG 101 - English Composition I....3
ENG 115 - Writing for Technical Communication....3
MAT 100 - Intermediate Algebra....3
CMS 120 - Public Speaking....3
MAT 130 or MAT 131 - Probability and Statistics or Introduction to Statistics I....3 - 4
Elective - Aesthetic Sensibility....3
Elective - Cultural Awareness and Diversity....3

Major Requirements
BIO 121 - General Biology I....4
BIO 140 - Microbiology and Immunology....4
BIT 120 - Introduction to Biotechnology....4
BIT 123 - Basic Techniques and Instrumentation for Biotechnology....4
BIT 220 - Biotechnology Research....4
BIT 232 - Biomanufacturing....4
CHE 131 - Chemistry for Technology I....4
CHE 132 - Chemistry for Technology II....4

Electives
Elective - Biotechnology Internship or Laboratory Science Elective....4-6
Elective - Laboratory Science Elective....4

TOTAL PROGRAM CREDITS: 61-64

BIOTECHNOLOGY AND BIOMANUFACTURING (CERTIFICATE OF COMPLETION)

Program Outcomes

- Demonstrate a theoretical and practical (i.e., hands-on) knowledge of state-of-the-art techniques and processes used in biotechnology and biomanufacturing laboratories, including use of various laboratory instrumentation used in research and discovery and biopharmaceutical process development and manufacturing;
- Explain the biotechnology process and design an experiment based on scientific literature that supports the steps of the biopharmaceutical development and manufacture process from identification of a molecule involved in a disease process to the end-stage marketing of a product;
- Evaluate manufacturing practices for compliances with current Good Manufacturing Practices and good Laboratory Practices industry standards;
- Compare and contrast the different operational units that make up a biotechnology company and the career opportunities available within these units.

After successfully finishing this two-semester program, you'll receive a Certificate of Completion and be ready to apply for employment. If you want to learn new, in-demand lab skills or update your current skills for a career in biotechnology, our Biotechnology and Biomanufacturing program is an economical alternative to a master's degree. Recent graduates are employed in local companies and academic research labs in jobs such as Research Assistant, senior scientist, Research Technician, QA Associate, Scientific Writer and lab Automation Scientist.

Program Curriculum

BIT 120, BIO 121 or CHE 131 - Introduction to Biotechnology, General Biology I, or Chemistry for Technology I....4
BIT 123 - Techniques and Instrumentation for Biotechnology....4
BIT 220 - Biotechnology Research....4
BIT 232 - Biomanufacturing....4

TOTAL PROGRAM CREDITS: 16

ENVIRONMENTAL STUDIES (A.S.)

Purpose

The Environmental Studies A.S. program is designed to prepare students for transfer to a four-year college or university. By integrating a broad spectrum of natural science and social science courses, the curriculum prepares students for advanced study and a variety of careers.

Program Outcomes

- Use established scientific standards and methods to install, calibrate, and manipulate basic laboratory and field equipment;
- Use established scientific standards and methods to collect, analyze, and interpret environmental data;
- Use established scientific standards and methods to hypothesize, communicate, and critique environmental forecasts;
- Analyze the sustainability of systems within an ecosystem.

At the end of the program you can easily transfer to a four-year institution and continue your environmental studies. You will also be prepared to major in such fields as environmental engineering, habitat biology, public policy or GIS.

Program Curriculum

General Education Requirements
ENG 101 - English Composition I....3
ENG 102, ENG 115 or GLG 151 - English Composition II, Writing for Technical Communication or Physical Geology....3 - 4
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
Elective - Aesthetic Sensibility....3
GEO 130 - Cultural Geography....3
GEO 210 or GEO 220 - Introduction to GIS or Map Design in GIS....3
GLG 115 - Environmental Geology....4
MAT 130 - Probability and Statistics....4

Major Requirements
BIO 115 - Environmental Biology....3

BIO 121 or BIO 151 - General Biology I or Principles of Biology I.....4
BIO 122 or BIO 152 - General Biology II or Principles of Biology IIS..... 4
BIO 256 - Ecology.....4
CHE 121 or CHE 151 - General Chemistry I or Principles of Chemistry I.....4
CHE 122 or CHE 152 - General Chemistry II or Principles of Chemistry II.....4
ESW 245 - Safety and First Aid.....3
GLG 125 - Climate Change..... 4
MAT 161 - Precalculus I.....4
MAT 162 - Precalculus II.....4

TOTAL PROGRAM CREDITS: 64-65

LIFE SCIENCES (A.S.)

Purpose

The Life Sciences (AS) program is designed to prepare students for transfer to a variety of programs at a four-year college or university. The curriculum prepares the student for future study in a variety of fields on the Traditional Life Science Concentration, such as general biology, microbiology, organismalbiology, molecular biology, biochemistry, neuroscience, environmental science, agriculture, biology education, etc., and on the Biomedical Science Concentration such as cytotechnology, medical laboratory science, nuclear medicine, physical therapy, occupational therapy, etc.

Program Outcomes

- Explain basic biological and chemical concepts;
- Evaluate issues in the life sciences that are of importance to organisms and/or the biosphere;
- Apply the scientific method to a range of life sciences;
- Utilize appropriate scientific techniques and technology for experimentation and data collection;
- Collect, analyze, and report scientific data in an ethical manner.

Upon graduating from the Life Sciences program, our students transfer to such four-year institutions as Thomas Jefferson and Penn State University. We make transferring as seamless as possible and encourage you to speak to your advisor or a college counselor about this process.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
CMS 120 - Public Speaking.....3
Elective - Cultural Awareness and Diversity..... 3
Elective - Aesthetic Sensibility..... 3
Elective - Technological Fluency.....3
Elective - Ethical Perspectives.....3

Major Requirements

BIO 151 - Principles of Biology I.....4
BIO 152 - Principles of Biology II.....4
CHE 151 - Principles of Chemistry I..... 4
CHE 152 - Principles of Chemistry II..... 4
Elective - Biology Lab Science (BIO-131, BIO 140, BIO 256 or BIO 260) - select two courses.....8
Elective - Lab Science (CHE-261, PHY 151, GLG 151, BIT 120, or BIT 123) - select two courses..... 8
MAT 130 - Probability and Statistics..... 4
MAT 190 - Calculus and Analytical Geometry I..... 4

Electives

Elective - General Elective or Science Elective.....3 - 4

TOTAL PROGRAM CREDITS: 61

BIOMEDICAL LIFE SCIENCES (A.S.)

Purpose

The Biomedical Life Sciences (AS) program is designed to prepare students for transfer to a variety of programs at four-year colleges or universities. The curriculum prepares the student for future study in fields such as cytotechnology, medical laboratory science, nuclear medicine, physical therapy, and occupational therapy.

Program Outcomes

- Explain basic biological and chemical concepts;
- Evaluate issues in the life sciences that are of importance to organisms and/or the biosphere;
- Apply the scientific method to a range of life sciences;
- Utilize appropriate scientific techniques and technology for experimentation and data collection;
- Collect, analyze, and report scientific data in an ethical manner.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I.....3
CMS 120 - Public Speaking.....3
Elective - Cultural Awareness and Diversity..... 3
Elective - Aesthetic Sensibility..... 3
Elective - Technological Fluency.....3
Elective - Ethical Perspectives.....3

Major Requirements

BIO 131 - Anatomy and Physiology I.....4
BIO 132 - Anatomy and Physiology II.....4
BIO 140 - Microbiology and Immunology.....4
BIO 151 or BIO 121 - Principles of Biology I or General Biology I.....4
CHE 151 or CHE 121 - Principles of Chemistry I or General Chemistry Inorganic..... 4
CHE 152 or CHE 122 - Principles of Chemistry II or General Chemistry II.....4
Elective - Lab Science (BIO-152, CHE 261, PHY 121, PHY 151 or BIT 120) - choose one..... 4
Elective - Lab Science (BIO-152, CHE 261, CHE 262, PHY 121, PHY 122, PHY 151, PHY 152, or BIT 123) - choose 1.....4
MAT 130 - Probability and Statistics..... 4
MAT 190 - Calculus and Analytical Geometry I..... 4

Electives

Elective - General Elective or Science Elective.....3 - 4

TOTAL PROGRAM CREDITS: 60

MATHEMATICS (A.A.)

Purpose

The Mathematics Program is designed to meet the transfer requirements of four-year colleges and universities for the many disciplines that require a strong Mathematics background. These disciplines include: Computer and Information Science; Business and Economics; Science and Engineering; Statistics, Actuarial Science and Operations Research; Mathematics and Education; Medicine and Law.

Program Outcomes

- Build effective problem-solving skills.
- Read and write mathematical proofs.
- Differentiate and integrate algebraic, trigonometric, exponential, logarithmic and hyperbolic functions, and apply the results to building mathematical models.
- Analyze the theory and applications of infinite series.
- Apply Stokes Theorem and the Divergence Theorem to applications of multivariable calculus.
- Find eigenvalues and eigenvectors and apply them to solving problems of linear algebra such as the diagonalization of a matrix (MAT 220) OR
- Solve nonhomogeneous linear differential equations by the method of variation of parameters (MAT 223).

After graduating, our students often transfer to four-year institutions to major in such fields as computer and information science, engineering, statistics, actuarial science, business, economics and mathematics. Thanks to Montco's compliance with the Pennsylvania Department of Education's Transfer Agreement Oversight Committee (TAOC), you can easily transfer to schools in the Pennsylvania State System of Higher Education (PASSHE).

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
CMS 110 or CMS 120 - Speech Communication or Public Speaking....3
Elective - ANT 104, HIS 101, HIS 102, HIS 203, HIS 205, POL 124 or SOC 101....3
ENG 102 - English Composition II....3
Electives
(choose two) - Aesthetic Sensibility....6
ECO 121 or ECO 122 - Macroeconomics or Microeconomics....3

Major Requirements

CIS 111 - Computer Science I: Programming and Concepts....3
CIS 111B - Computer Science II: Object-Oriented Programming....3
MAT 190 - Calculus and Analytical Geometry I....4
MAT 201 - Calculus and Analytical Geometry II....4
MAT 202 - Calculus and Analytical Geometry III....4
MAT 211 - Foundations of Mathematical Proof....3
MAT 220 or MAT 223 - Linear Algebra or Differential Equations....4
PHY 151 - Principles of Physics I....4
PHY 152 - Principles of Physics II....4

Electives

Electives - Electives....6 - 7

TOTAL PROGRAM CREDITS: 60-61

PHYSICAL SCIENCES (A.S.)

Purpose

The Physical Sciences program provides a strong mathematics and science background for transfer to a four-year college or university.The curriculum prepares students for study leading to a bachelor's degree in a variety of fields, including chemistry, geology, and physics. It is also a first step toward a graduate degree in medical sciences.

Program Outcomes

- Prepare for and conduct scientific experiments;
- Use and understand basic instrumentation;
- Analyze and interpret scientific data;
- Demonstrate an extensive problem-solving capability.

Our Physical Sciences curriculum prepares you to transfer to a four-year institution and major in such fields as chemistry or physics. It also provides a solid foundation for future studies in health sciences, medicine and chemical engineering.

Program Curriculum

General Education Requirements

ENG 101 - English Composition I....3
ENG 102 - English Composition II....3
Elective - Technological Fluency....3
Elective - Ethical Perspectives....3
Elective - Aesthetic Sensibility....3
Elective - Oral Communication....3
Elective - Cultural Awareness and Diversity....3

Major Requirements

CHE 151 - Principles of Chemistry I....4
CHE 152 - Principles of Chemistry II....4
CHE 261 or ScienceElective - Organic Chemistry I or AST, BIO, CHE, GLG, MAT, or PHY Course....4
CHE 262 or Science Elective - Organic Chemistry II or Science Elective....4
MAT 190 - Calculus and Analytical Geometry I....4
MAT 201 - Calculus and Analytical Geometry II....4
PHY 151 - Principles of Physics I....4
PHY 152 - Principles of Physics II....4

Electives

Electives - Electives....8

TOTAL PROGRAM CREDITS: 61

COURSE DESCRIPTIONS

Insofar as possible, all courses offered by the College during the 2021-2022 semesters are described on the following pages. However, since the College is responsive to the actual needs of its students, some listed courses may not be offered if there is insufficient enrollment; others may be added at the discretion of the Vice-President of Academic Affairs and Provost if requested by a sufficient number of students. Courses are listed by code and number under departmental headings; courses under 100 are developmental courses, and course hours are not credited toward a degree. In some instances, students will be advised to enroll in such fundamental courses. Students are cautioned to pay particular attention to the pre-requisites needed for enrollment in certain advanced courses. Unless the Pre-requisite(s) for these courses have been fulfilled, students will not be permitted to register for the courses. The following letter code, along with a number, is used by the College to designate course descriptions.

ACC - ACCOUNTING
ANT - ANTHROPOLOGY
ADV - ADVISOR PSEUDO
ART - ART
ARA - ARABIC
AST - ASTRONOMY
BIO - BIOLOGY
BIT - BIOTECHNOLOGY
BPA - BAKING & PASTRY ARTS
CIS - COMPUTER & INFO SYST
CJS - CRIMINAL JUSTICE
CHI - CHINESE
CMS - COMMUNICATION STUDIES
CUL - CULINARY ARTS
COU - COUNSELING
DAN - DANCE
DHG - DENTAL HYGIENE
EDU - EDUCATION
EGR - ENGINEERING SCIENCE
ENG - ENGLISH
ESC - NANOFABRICATION
ESL - ENGLISH/SECOND LANG
FRE - FRENCH
ECO - ECONOMICS
ESW - EXERCISE SCIENCE AND WELLNESS
GER - GERMAN
ETP - ENTREPRENEURSHIP
HCP - HEALTH CARE PROFESSIONS
GEO - GEOGRAPHY
GLG - GEOLOGY
HIS - HISTORY
ASL - AMERICAN SIGN LANGUAGE
HSW - HUMAN SERVICES
HON - HONORS
HOS - HOSPITALITY MANAGEMENT
MAS - MEDICAL ASSISTING
MAT - MATHEMATICS
ITA - ITALIAN
JPN - JAPANESE
MGT - MANAGEMENT
MKT - MARKETING
MSP - MASS MEDIA STUDIES & PRODUCTN
MLT - MEDICAL LAB TECH
MUS - MUSIC
NUR - NURSING
OFM - OFFICE MANAGEMENT
PHI - PHILOSOPHY
POL - POLITICAL SCIENCE
PSA - PUBLIC SAFETY ADMINISTRATION
PSY - PSYCHOLOGY
PTA - PHYSICAL THERAPIST ASSISTANT
RAD - RADIOGRAPHY
SOC - SOCIOLOGY
SPA - SPANISH
THA - THEATRE
PHY - PHYSICS
SRT - SOUND RECORDING TECHNOLOGY
PBH - PUBLIC HEALTH
CHE - CHEMISTRY
EMP - EMERGENCY MANAGEMENT PLANNING
FYE - FIRST YEAR EXPERIENCE
REA - READING/STUDY SKILLS
SUR - SURGICAL TECHNOLOGY

PREREQUISITES*

A Prerequisite is a condition or requirement which must be met before enrolling in a course. students are not permitted to enroll in a course without first satisfying the Prerequisite(s). Courses requiring Prerequisite(s) are so noted in the College Catalog and course schedules. Requests for the waiver of Prerequisites are considered by Division Deans

* While the College ensures that all students registering for courses satisfy Prerequisites, it is the students ultimate responsibility to ensure Pre-requisites are met. The College reserves the right to de-register students that are inappropriately registered for courses in which Pre-requisites are not met. All students are therefore encouraged to speak with an advisor prior to registration.

CO-REQUISITES**

A Co-requisite is a condition or requirement-usually another College course-which must be prior to or while enrolling in a course.

** The registration system does not monitor whether students enroll for Co-requisites. It is the responsibility of the student to be aware of any Co-requisite coursework, and register accordingly.

CONCURRENT**

A concurrent course is a condition or requirement – usually another College course – which must be taken while enrolled in a course.

** The registration system does not monitor whether students enroll for concurrent requirements.. It is the responsibility of the student to be aware of any concurrent coursework, and register accordingly.

COURSE CREDIT NUMBERING

The three numbers following (to the right) of the course titles indicate: (a) the credit hours for the course, (b) the hours per week the class meets, and (c) the number of laboratory hours per week. For example, CHE 121 General Chemistry I, 4-3-3 has four hours credit, three hours of lecture and three hours of laboratory per week during a semester.

ACCOUNTING

ACC 118 PROFESSIONAL BOOKKEEPING..... 3-3-0
Students will expand literacy and skills in the application of the basic principles covered in Financial Accounting (ACC115). Course topics include and emphasis placed on the specialized applications of the principles of financial accounting including adjusting journal entries, depreciation, inventory cost flow methods, correction of accounting errors, internal controls and fraud prevention. Using accounting software, students will create a company file, enter transaction data, generate management reports and financial statements, and complete the year end closing process. Spreadsheet technology will be used to prepare reports and perform data analytics. This course, in conjunction with Payroll Accounting (ACC117) is designed to prepare students for national certification exams and to obtain a certified bookkeeper designation.
Prerequisites:
ACC 115 - Financial Accounting with a minimum grade of C
OFM 101 Business Software Essentials with a minimum grade of C

ACC 105 SURVEY OF ACCOUNTING.....3-3-0
Students will develop an understanding of the basic concepts and processes of financial and managerial accounting. Students will learn to interpret accounting information and reports from the perspective of managers, investors, and other business stakeholders. (Business majors planning to transfer may not substitute this course for ACC 115 - Financial Accounting, or ACC 116 - Managerial Accounting.)
Prerequisites:
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ACC 110 BUSINESS MATHEMATICS.....3-3-0
This course is designed for business non-transfer students. Students will expand literacy and skills in business mathematical topics such as bank reconciliations, equations, trade and cash discounts, simple and compound interest, present value, mortgages, stocks, and business statistics.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years

ACC 221 ACCOUNTING INFORMATION SYSTEMS.....3-3-0
Students learn the principles of accounting information systems. Students will document business processes, review source documents, assess business transaction cycles and processing within the accounting information system, understand and apply data analytics to accounting information systems generated data and reports. The principles of internal control will be applied to business systems and information technology. In a hands-on environment, students will learn the design and function of a computerized accounting information system. Using an Enterprise Resource Planning (ERP) system, students will create a company file, enter transaction data, generate management reports and financial statements, and complete the year end closing process.
Prerequisites:
ACC 116 - Managerial Accounting with a minimum grade of C
CIS 110 - Information Systems for Management with Computer Applications or OFM 101 - Business Software Essentials with a minimum grade of C

ACC 241 TAX ACCOUNTING.....3-3-0
Students learn the laws, regulations, and accounting practices pertaining to individual Federal taxes. Students will analyze gross income, exclusions, business expenses, depreciation, itemized deductions, capital gains, sales of personal residences, exemptions, and filing status. Relevant forms will be discussed.
Prerequisites:
ACC 116 - Managerial Accounting with a minimum grade of C

ACC 117 PAYROLL ACCOUNTING..... 3-3-0
Students will develop literacy and skills in the application of the principles of payroll accounting including the calculation of salaries and wages, federal, state, Social Security, Medicare and unemployment taxes including matching employer taxes. Students will prepare the necessary payroll entries and produce quarterly and year-end tax returns. This course is designed to prepare students to pass the national certification exam and to obtain the American Payroll Association's (APA) Fundamental Payroll Certification (FPC) designation.
Prerequisites:
ACC 115 - Financial Accounting with a minimum grade of C

ACC 115 FINANCIAL ACCOUNTING.....4-4-0
Students will develop literacy and skills in the application of the basic principles of financial accounting including accounting principles and practices, accounting journals and ledgers for recording business transactions, and application of the accounting cycle for service and merchandising enterprises from analysis of business transactions through preparation and evaluation of the income statement, balance sheet and statement of cash flows.
Prerequisites:
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years

ACC 150 LEGAL ENVIRONMENT OF BUSINESS.....3-3-0
Students study the regulatory environment in which business operates and the political, social, and economic forces behind and evolution of the forms and types of law that govern disputes and transactions between individuals (including business organizations). The Constitutional foundation of law and the role played by administrative agencies in regulating business activity are studied including remedies in and out of court. Issues of crimes, torts, contracts, property, business organizations, consumer rights, employment, intellectual property rights, and international transactions will be discussed.

ACC 116 MANAGERIAL ACCOUNTING.....3-3-0
Students will develop literacy and skills in the application of the basic principles of managerial accounting including the preparation of manufacturing financial statements. Students will apply various costing systems including job order, process, activity based and variable costing, cost-volume-profit analysis, budgeting, and management decision making.
Prerequisites:
ACC 115 - Financial Accounting with a minimum grade of C

ACC 198 COOPERATIVE INTERNSHIP IN ACCOUNTING I.....3-0-15
This course consists of employment in a college-approved organization to enable the student to gain insight into an accounting organization. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**
Prerequisites:
ACC 116 - Managerial Accounting, ACC 117 - Payroll Accounting, OR ACC 118 - Professional Bookkeeping and permission of the coordinator

ACC 230 COST ACCOUNTING.....3-3-0
Students study cost management systems including job costing, process costing and activity based costing. Students learn to use these systems to manage the cost of customers, suppliers, capacity, quality, and the allocation of service department and joint costs. Students study management control systems including performance measurement, transfer pricing, and variance analysis. These analyses are applied to support the overall business strategy.
Prerequisites:
ACC 116 - Managerial Accounting with a minimum grade of C

ACC 211 INTERMEDIATE ACCOUNTING I..... 3-3-0
Students will learn Generally Accepted Accounting Principles as applied to current and non-current assets, fixed assets (property, plant & equipment), intangible assets, current and long-term liabilities, stockholders' equity, related income statement and balance sheet accounts, and the time value of money.
Prerequisites:
ACC 116 - Managerial Accounting with a minimum grade of C

ACC 251 AUDITING I.....
Students will study the conceptual and applied aspects of auditing, current auditing standards, professional ethics, regulation, and legal liability inherent in the attest function. The evaluation and study of internal control, the nature of evidence, the use of statistical sampling and computers in the auditing process will be explored. Audit planning and documentation are practiced.
Prerequisites:
ACC 116 - Managerial Accounting or ACC 112 - Accounting Principles II with a minimum grade of C may be substituted

ANTHROPOLOGY

ANT 104 INTRODUCTION TO CULTURAL ANTHROPOLOGY.....3-3-0
This course examines the unique nature of culture and its role in the determination of human behavior. It also explores the relationship of kinship, political, economic, religious, and other institutions within cultural systems, with a particular emphasis upon the operation of these institutions in non-Western societies.

ANT 204 MAGIC, RELIGION AND WITCHCRAFT.....3-3-0
This course is a cross-cultural survey of religious beliefs and practices. The course will examine a broad range of religious activities, rituals, and behaviors from an anthropological perspective. Students will apply this perspective in independent analyses of religious rituals in a community or culture other than that with which they are familiar. The course is comparative in nature and will focus on the practice of religious activities rather than specific religious dogma.
Prerequisites:
ENG 011 - Basic Writing II

ANT 101 INTRODUCTION TO ARCHAEOLOGY.....3-3-0
This course examines the theory and history of archaeological methods in the field of professional archaeology. A primary objective of the course is to foster an understanding of humanity's common cultural heritage and the shared responsibility people all have in understanding and preserving this cultural heritage. Students will investigate the advent of agriculture and the formation of cities and states and explore a comprehensive overview of prehistoric societies from Asia to the Americas.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ANT 104H INTRODUCTION TO CULTURAL ANTHROPOLOGY HONORS.....3-3-0
This course examines the unique nature of culture and its role in the determination of human behavior. It also explores the relationship of kinship, political, economic, religious, and other institutions within cultural systems, with a particular emphasis upon the operation of these institutions in non-Western societies. This Honors course fosters high-achieving students' growth towards learning outcomes such as: critical reading and artistic literacy; forming judgments based on evidence; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

ANT 100 INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY..... 3-3-0
This course explores the evolutionary emergence of man, and the implications and characteristics of human physical diversity as a basis for an understanding of man as a physical organism.

ADVISOR PSEUDO

ADV MSA MUST SEE ADVISOR.....
Please click **HERE** to schedule an appointment with your advisor through Starfish. This is a placeholder to ensure you connect with your advisor regarding your schedule.

FOR ADVISOR USE ONLY.

ADV CPH COURSE PLACEHOLDER.....
Please click **HERE** to schedule an appointment with your advisor through Starfish. This is a placeholder reminder regarding a course to add based on the discussions with your advisor.

FOR ADVISOR USE ONLY.

ADV HSR HEALTH SCIENCE REQUIREMENTS.....
Please click **HERE** to schedule an appointment with your advisor through Starfish. This is a placeholder reminder regarding the Special Admission Requirements in your program. Please connect with your Advisor for timeline and next steps.

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ART

ART 104 HISTORY OF GRAPHIC DESIGN..... 3-3-0
A survey of visual communication from the earliest written language through contemporary graphic design. Emphasis will be placed on the developments in graphic design from the Industrial Revolution to the present. Modern graphic design in mass communication will be examined in relation to the broader cultural, social, and technological contexts in which they were created. The Arts and Crafts movement, Art Nouveau, Bauhaus, de Stijl and Constructivism, Art Deco, and Post-Modernism will be covered. Comparative study of graphic design in relation to the arts and other manifestations of human intellectual achievement in the rapidly changing social and technological landscape of the twentieth century will be examined.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 122 PAINTING II..... 3-2-2
An intense study of the use of oil and/or acrylics in painting from still life, landscape and figure. In addition to studio work, there will be demonstrations, group discussions and critiques. Please note: Students are required to draw/paint nude models of both genders in this course. Participation is required in all life drawing/painting sessions. Please consult with your advisor to choose another Art course if you are unable to commit to participation in life drawing/painting for any reason. **This course is subject to a course fee.**
Prerequisites:
ART 121- Painting I

ART 111 DRAWING I..... 3-2-2
An introduction to drawing in a variety of media including charcoal, conté crayon, pencil, and ink. Students will draw a variety of subjects including still life, landscapes and life models. Emphasis will be placed on developing an understanding of developing line and tone, composition, gesture, anatomy, basic perspective, and other perceptual concepts. Studio work will be augmented by critiques, discussions, and demonstrations. Please note: This course requires working from the nude figure. Participation is required in all sessions working from a live, nude model. Please consult with your advisor to choose another Art course if you are unable to commit to paint/draw from a nude model, of either gender, for any reason. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 112 DRAWING II..... 3-2-2
A study of drawing in different media stressing draftsmanship and creative interpretation. Special emphasis will be placed on understanding the figure and portraiture. In addition to studio work, group discussions and critiques will be provided. Please note: This course requires working from the nude figure. Participation is required in all sessions working from a live, nude model. Please consult with your advisor to choose another Art course if you are unable to commit to paint/draw from a nude model of either gender, for any reason. **This course is subject to a course fee.**
Prerequisites:
ART 111 - Drawing I

ART 121 PAINTING I..... 3-2-2
An introduction to painting. Students will paint a variety of subjects utilizing representation and abstraction. Emphasis will be placed on developing an understanding of the physical properties of paint and its mediums, application techniques, and color mixing. Students will develop an understanding of line and tone, composition, perspective, and other perceptual concepts. Studio work will be augmented by critiques, discussions, and demonstrations. Please note: This course may require working from the nude figure. Participation is required in all sessions working from a live, nude model. Please consult with your advisor to choose another Art course if you are unable to commit to paint/draw from a nude model, of either gender, for any reason. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 130 TWO-DIMENSIONAL DESIGN..... 3-2-2
An introduction to a wide range of artistic concepts and the efficient and practical use of graphic materials and tools. The course is intended to develop practical patterns from solving two-dimensional problems through lectures, demonstrations, and studio work. **This course is subject to a course fee.**

ART 138 DIGITAL ART I.....3-2-2
This course introduces the principles of aesthetics inherent to the effective construction of meaning in two-dimensional artwork while exploring options offered by combining traditional and digital techniques. The fundamentals of computer-based image creation will be introduced while challenging students' imagination and expanding their creative skills as visual communicators in our increasingly demanding aesthetic environment. Projects will explore the creation and analysis of artwork within the context of contemporary visual culture. Examples of historically significant as well as relevant contemporary artworks will be presented for review. Students who successfully complete this course will develop artworks demonstrating a working knowledge of the perceptual skills and techniques addressed in the studio, forming the basis for the creation of a portfolio of original work. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 102 ART HISTORY: PRE-RENAISSANCE TO IMPRESSIONISM.....3-3-0
A survey of Western visual arts and architecture from the Renaissance to the Industrial Revolution. Significant individual artists will be studied and their works will be examined both aesthetically and in relationship to the historical and social contexts in which they were created. Comparative study of diverse cultural and societal conditions will be examined through the works of great visual artists and architects offering students a broader perspective of human experience throughout the historical periods covered.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 103 ART HISTORY: MODERN ART.....3-3-0
An investigation of modern change and diversity as reflected in the art and architecture of Europe and America from the Industrial Revolution to the present. The response of artists to new technologies and the advancement of mass media will be examined both aesthetically and in relationship to the historical, social, and technological contexts in which they were created. Post-Impressionism, Fauvism, Cubism, Constructivism, Dada, Surrealism, Abstract Expressionism, Pop Art, Minimalism, and Neo-Expressionism are among the styles addressed in the course. Comparative study of evolving social contexts will be examined through individual works and artists offering students a broader perspective of human experience throughout Industrial, Post-Industrial and Information Ages.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 180 INTRODUCTION TO VISUAL COMMUNICATION..... 3-2-2
This course introduces the fundamental principles of visual communication as they apply to the graphic design profession. Students are introduced to the scope of the graphic design field while developing skills in industry-standard tools and techniques. Assignments introduce creative visual problem solving from research and concept development and formal exploration of form and composition through the principles of critical thinking and human visual perception necessary for effective communication. Relevant historical and contemporary examples of visual communication are explored as students are encouraged to develop a personal style and expand their creative skills in discovering solutions as effective visual thinkers. **This course is subject to a course fee.**
Prerequisites:
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C

ART 198 COOPERATIVE INTERNSHIP IN ART I.....3-0-15
This course provides students with an opportunity to integrate what they have learned in the classroom with valuable hands-on work experience in their field of study. Students work full-or part-time for a specified period of time (usually a minimum of 225 hours for three credits). **This course is subject to a course fee.**

ART 140 3-D DESIGN PRINCIPLES..... 3-2-2
A continuation of the study of design principles with emphasis given to three dimensional forms and structures. The course is intended to develop the skills and knowledge necessary to produce creative and practical solutions used in resolving sculptural, architectural, and other three dimensional problems through lectures, demonstrations, and studio work. **This course is subject to a course fee.**
Prerequisites:
ART 130 - Two Dimensional Design

ART 211 DRAWING III..... 3-2-2
A comprehensive study in the art of color drawing. A variety of media will be used to explore color in various drawing situations, including figure drawing, portraiture, still life, landscape and non-figurative works. Please note: This course requires working from the nude figure. Participation is required in all sessions working from a live, nude model. Please consult with your advisor to choose another Art course if you are unable to commit to paint/draw from a nude model of either gender, for any reason. **This course is subject to a course fee.**
Prerequisites:
ART 112 - Drawing II

ART 197 IND STUDY IN ART I LEVEL I.....3-0-15
This course allows the department the flexibility to create an experimental course offering on a one semester basis. Another way in which this independent course could function would be on an individual basis with students who are seeking a specialty offering or for the students who have taken all offerings in medium and would like to continue their development. **This course is subject to a course fee.**
Prerequisites:
Permission of instructor and approval of Division Dean

ART 280 GRAPHIC DESIGN I.....3-2-2
Explorations in the art of visual communication. Students will learn to communicate effectively and creatively using type and image to solve real-world communications problems. This class will use the latest versions of graphic design software applications and incoming students are expected to have a working knowledge of these programs. **This course is subject to a course fee.**
Prerequisites:
ART 180 - Introduction to Visual Communication
ART 182 - Typography

ART 151 PHOTOGRAPHY I..... 3-2-2
This is a basic course in black and white still photography. The photographic process, from exposing and developing film to making and mounting the print for presentation, will be taught. The camera will be used to explore and discover the visual world; with the goal of using the photographic image as a means of expression. Information obtained in this course can be applied to all branches of photography. **This course is subject to a course fee.**

ART 161 CERAMICS I..... 3-2-2
An introduction to the historical, cultural, scientific, creative, and expressive basis of ceramics. Students will learn various construction and decorative techniques used in the hand forming of stoneware clay through a series of assignments and exercises designed to develop each student's potential for personal expression and creativity. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 261 CERAMICS II..... 3-2-2
A course intended to develop and extend clay-forming skills introduced in Ceramics I through various assignments. Handforming techniques will be explored singly and in conjunction with one another. Also an introduction to glaze chemistry will be made to initiate experimental testing on glaze bodies. **This course is subject to a course fee.**
Prerequisites:
ART 161 - Ceramics I

ART 171 PRINTMAKING I.....3-2-2
An introduction to the printmaking techniques of relief, intaglio and monoprinting. Studio work and instruction will be presented in a variety of techniques with an emphasis on developing an understanding of plate making and fine art printing. Studio work will be augmented by critiques, discussions, and demonstrations. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 285 ILLUSTRATION I..... 3-2-2
This course is an introduction to the fundamental skills of visual communication required of the illustrator, including research, concept development, image generation and final image completion and delivery. Examples of historically relevant and contemporary artwork will be explored and evaluated, and a variety of materials and techniques will be introduced as students are encouraged to explore the development of a personal artistic style. Projects will introduce visual problems specific to illustration, including the vital connection between image and text, narrative, and the aesthetic challenges of developing unique creative visualizations. **This course is subject to a course fee.**
Prerequisites:
ART 111 - Drawing I or portfolio review.

ART 271 PRINTMAKING II..... 3-2-2
Further studies in printmaking, with an emphasis placed on the additional development of skills learned in the introductory class. Advanced techniques in relief and intaglio will be covered through studio work, instruction and critique. **This course is subject to a course fee.**
Prerequisites:
ART 171 - Printmaking I

ART 221 PAINTING III..... 3-2-2
A continuation of Painting II emphasizing creativity and experimentation in solving a variety of advanced problems. Extensive studio work. Please note: Students are required to draw/paint nude models of both genders in this course. Participation is required in all life drawing/painting sessions. Please consult with your advisor to choose another Art course if you are unable to commit to participation in life drawing/painting for any reason. **This course is subject to a course fee.**
Prerequisites:
ART 122 - Painting II

ART 241 ANIMATION III..... 3-2-2
This course allows for further development of skills acquired in Animation II, with a focus on production for animation. Current industry practices are introduced to build on students' understanding of animation processes and principles in the areas of pre-production, character design, production and post-production. Appropriate animation production terminology and relevant written formats will also be introduced. **This course is subject to a course fee.**
Prerequisites:
ART 240 - Animation II or portfolio review by instructor.

ART 266 CERAMICS: RAKU POTTERY..... 3-2-2
Although the historical context of raku pottery will be explained, the contemporary approach to the medium will be pursued. Slip glaze techniques and glaze application will be explored as well as the effects of pre- and post-reduction firing of the raku vessels. Clay and glaze making will be covered and the design and construction of a raku vessels. **This course is subject to a course fee.**
Prerequisites:
ART 161 - Ceramics I

ART 272 PRINTMAKING III..... 3-2-2
A continuation of the exploration of skills and concepts involved in the creation of fine art prints addressed in Printmaking II. Techniques will be presented through demonstration, studio work, lecture and critique. Students who successfully complete this course will develop original work suitable for inclusion in a portfolio for transfer to a four-year program of study. **This course is subject to a course fee.**
Prerequisites:
ART 271 - Printmaking II

ART 286 ILLUSTRATION II..... 3-2-2
This course is designed to advance the skills and concepts introduced in Illustration I with an emphasis on enhancing the development of a personal artistic style. Examples of historically relevant and contemporary artwork and a variety of materials and techniques will be explored and evaluated. Projects will be designed to advance the grasp of visual problems specific to illustration, including the vital connection between image and text, narrative, and the aesthetic challenges of developing unique creative visualizations. **This course is subject to a course fee.**
Prerequisites:
ART 285 - Illustration I or portfolio review.

ART 101 ART HISTORY: CAVE PAINTING TO PRE-RENAISSANCE. 3-3-0
A survey of Western visual arts and architecture from the earliest examples of cave painting and sculpture to the beginning of the Renaissance in Europe in the 15th century. Masterworks in painting, sculpture and architecture are examined as individual aesthetic works and in relationship to their historical and social contexts. Comparative study of diverse civilizations will be explored through the works of great visual artists and architects offering students a broader perspective of human experience throughout the historical periods covered.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 109 HISTORY OF FASHION DESIGN..... 3-3-0
This course will present a survey of the evolution of fashionable dress from the late 19th century to the present day. Emphasis will be placed on an examination of individual garments and movements considered by scholars to be outstanding, historically significant or influential. The course will also cover the development of 20th century mass fashion and its associated cultural and economic impact. Technological advances in textile and apparel production will be examined as will an exploration of the role of the fine and decorative arts movements in fashion change. Finally, the creation of fashionable dress will be viewed as a means of personal creative expression.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 156 DIGITAL PHOTOGRAPHY II..... 3-2-2
Students create new photographic works in a digital environment, developing effective and nondestructive workflows for image editing, sorting, and organizing. Students will learn advanced digital retouching techniques and explore the capabilities of the electronic darkroom. Investigating creative and technical skills such as Camera RAW processing, students will acquire skills in advanced tonal and color correcting, and local image adjustments using selection and masking techniques. Studio lighting for portraits and commercial product photography will also be addressed. **This course is subject to a course fee.**
Prerequisites:
ART 155 - Digital Photography I
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 182 TYPOGRAPHY..... 3-2-2
A study of the fine art and craft of typography. Students will explore the history and evolution of type, noted typographers, the shape and function of letterforms, and letters, words and sentences as an integral element of communication and graphic design problem solving. **This course is subject to a course fee.**
Prerequisites:
ART 180 - Introduction to Visual Communication or ART 138 - Digital Art I or Permission from Faculty Instructor

ART 139 DIGITAL ART II.....3-2-2
This course serves as an advanced course in digital imaging for fine artists. Students will work on creating digital images for both print and electronic media. Emphasis will be placed on creating high-end Giclée prints using a variety of professional output options and media. Students who complete this course will develop a portfolio of work demonstrating a working knowledge of the perceptual skills and techniques addressed in the studio. **This course is subject to a course fee.**
Prerequisites:
ART 138 - Digital Art I

ART 213 PASTELS..... 3-2-2
This course is designed to introduce students to the medium of pastel with a strong focus on color theory. There will be demonstrations on techniques and discussions on various types of pastels and pastel papers that can be employed by the artist in realizing his/her vision. The course will concentrate on the fundamentals of art, such as composition, with an emphasis on self-expression. Students who complete this course will develop a portfolio of work demonstrating a working knowledge of the perceptual skills and techniques addressed in the studio. **This course is subject to a course fee.**
Prerequisites:
ART 112 - Drawing II

ART 152 PHOTOGRAPHY II..... 3-2-2
This course emphasizes the development of a "critical eye" and the use of photography as a form of self-expression. Advanced camera, darkroom, and editing techniques will be explored. Individual projects will be pursued to develop a cohesive visual idea. **This course is subject to a course fee.**
Prerequisites:
ART 151 - Photography I

ART 155 DIGITAL PHOTOGRAPHY I..... 3-2-2
An introduction to digital photography and the techniques of computer-based photographic manipulation. This studio course will stress the relationship between traditional photography and darkroom techniques, and the use of imaging software and development of animation and multimedia techniques while also incorporating work in traditional media. Advanced computer-based imaging will be explored while challenging the students' imagination and expanding their creative skills. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ART 240 ANIMATION II..... 3-2-2
This course is a continuation of studies in drawn and digitally produced animation introduced in Animation I. Concepts and skills related to timing, rhythm and motion are further developed through projects designed to build proficiency in technical aspects of animation while challenging students' imagination in the development of a personal aesthetic. An emphasis will be placed on narrative and/or conceptual content and solid craftsmanship in execution. Topics in animation history and professional working methods will be explored, with relevant screenings of complete shorts and/or excerpts of feature-length commercial and independent animation presented for evaluation and discussion. **This course is subject to a course fee.**
Prerequisites:
ART 238 - Animation I

ART 185 INTRODUCTION TO FASHION DESIGN..... 3-2-2
This course uses an examination of the historical record, current industry practice, and demonstration of apparel development processes and principles to introduce the field of Fashion Design. Through the application of color theory, exploratory textile research, and examination of current fashion market activity, students will conceptualize and graphically execute their own ideas for collections and garments. The course will introduce the development of the croqui, or fashion figure, which students will use as an aid to the apparel design process. Technical fashion design terminology presented and methodology demonstrated will allow students to see how materials are incorporated into functional and aesthetically valid products that respond to the demands of the market and meet consumer desires. General fashion terminology and writing styles will be introduced and practiced. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ART 281 GRAPHIC DESIGN II.....3-2-2
Advanced problem solving in graphic design with an emphasis placed on developing an understanding of the production process and the business of design. Projects will include: corporate and product identity, packaging, poster design, and book design. **This course is subject to a course fee.**
Prerequisites:
ART 280 Graphic Design I

ART 131 COLOR THEORY.....3-2-2
This course is an exploration of the physical and psychological properties of color. Students will develop a foundation for working with color as a means of expression. Students will build a color vocabulary and investigate the use of color as a visual element of communication. Creative problem solving through conceptualization, research, technical execution and presentation will be emphasized. **This course is subject to a course fee.**
Prerequisites:
ART 130 - Two-Dimensional Design Principles
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ART 238 ANIMATION I..... 3-2-2
This course is an introduction to the fundamental principles of animation. Conceptual skills related to timing, rhythm and motion are developed through exercises in drawn animation, with a progression to the introduction of basic digital animation tools. An emphasis will be placed on the development of personal style and solid craftsmanship in execution. An overview of the history of animation and professional working methods will be introduced. Screenings of complete shorts and/or excerpts of feature-length commercial and independent animation will be presented for evaluation and discussion. **This course is subject to a course fee.**
Prerequisites:
ART 111 - Drawing I

ART 262 CERAMICS III..... 3-2-2
A course intended to develop and extend clay-forming skills introduced in Ceramics I through various assignments. Hand forming techniques will be explored singly and in conjunction with one another. Also an introduction to glaze chemistry will be made to initiate experimental testing on glaze bodies. **This course is subject to a course fee.**
Prerequisites:
ART 261 - Ceramics II

ART 289 PORTFOLIO WORKSHOP..... 3-2-2
A cornerstone course for Fine Art majors who have developed a body of original artwork in prior courses and/or in personal practice. The Fine Art AFA is equivalent to the first two years of study for most programs in the visual arts offering the BFA (Bachelors of Fine Art), the standard degree for visual arts professionals. This course offers students guidance in exploring options for continuing their education and preparing an appropriate entrance portfolio based on existing artwork. This course may also be suitable for students who already possess an undergraduate degree and wish to work with existing artwork to prepare a portfolio for entry level positions in the visual arts. Strategies for personal advancement will be developed based on the interests and abilities of each student. Portfolio presentation techniques addressed will include traditional and digital methods. Relevant standards and practices in the visual arts professions will also be explored. **This course is subject to a course fee.**
Prerequisites:
Any 200 level ART course OR permission by instructor by review of artwork and ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C

ARABIC

ARA 101 ELEMENTARY ARABIC I.....3-3-0
Elementary Arabic is an introduction to the Arabic language. Students will learn how to construct basic phrases, elementary communication, and an introduction to the script, and focus on pronunciation. Students will encounter elements of the culture of the Arabic-speaking world. This course meets General Education Core Goal 12: Global Perspectives.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ARA 102 ELEMENTARY ARABIC II.....3-3-0
This course, Elementary Arabic II, is a sequence to the Elementary Arabic I course. Students will continue to study the basic language structures with emphasize on the usage of present, past and future verb tenses. The course will use a proficiency-oriented approach using the four skills: speaking, listening, reading and writing using the Arabic language. This course meets General Education Core Goal 12: Global Perspectives & Diversity
Prerequisites:
ARA 101 - Elementary Arabic I

ASTRONOMY

AST 120 INTRODUCTION TO ASTRONOMY.....4-3-3
Introduction to Astronomy is a one-semester college-level course in basic astronomy. The course may be used as a laboratory science elective with basic algebraic applications. The course explores a broad range astronomical concepts and principles in ten major areas: understanding the sky, apparent motions of the planets and the sun, telescopes and accompanying technology, basic structure and behavior of atoms, origin and analysis of light, origin of the solar system, internal structure and behavior of the sun, lifecycle of all stellar classes, origin and structure of galaxies, and cosmology. Throughout the course, emphasis is placed on the implementation of the scientific method, the evidence that astronomers use to support their conclusions, and the importance of astronomy. (Night-time observing is required). **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C within 5 years
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years, or High School Algebra II with a minimum grade of B within 5 years.. May be taken prior or during course.

AST 121 ASTROBIOLOGY.....4-3-3
Astrobiology uses a multidisciplinary and scientific approach to analyze and assess the theories regarding the evolution of life elsewhere in the universe. While strong emphasis is placed on the astronomical/ astrophysical aspects of astrobiology, the course introduces, discusses, and integrates aspects from multiple disciplines (chemistry, biology, geology, and earth sciences) to achieve an overall understanding of the definition of life and evolution. A secondary focus of the course is to develop a firm understanding of the scientific method such that students who complete the course can appreciate the scientific process, build scientific reasoning skills that are applicable beyond this course, and develop basic laboratory skills. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C within 5 years
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years, or High School Algebra II with a minimum grade of B within 5 years.. May be taken prior or during course.

BIOLOGY

BIO 117 INTRODUCTION TO FOOD SCIENCE.....4-3-3
Food Science integrates an interdisciplinary scientific approach to food and its components. Relationships between the chemical composition of food and sensory properties are delineated. In this course students evaluate the effects of processing, preparation, and storage on the quality, safety, and nutritive value of various food categories. Further, this course examines the application of technology to both improve and expand the food supply. Food science applies concepts from nutrition, health, biology, and chemistry to discern how the various ingredients in foods interact. Laboratory testing and food science techniques specific to the science of food are explored.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
MAT 080 - Fundamentals of Mathematics

BIO 131 HUMAN ANATOMY & PHYSIOLOGY I.....4-3-3
A course employing a systems approach to the structure and function of the human body. Emphasis will be placed on biological chemistry, the cell, the skeletal, muscular, nervous and integument systems. Appropriate, relevant laboratory experiences will be employed to supplement and/or reinforce the lecture material. Dissection of preserved animal material is required. **This course is subject to a course fee.**
Prerequisites:
BIO 121 - General Biology I or BIO 151 - Principles of Biology I with a minimum grade of C within 5 years, or a passing score on the MCCC Biology Placement Test.
High School Chemistry, CHE 121 - General Chemistry - Inorganic, CHE 131 - Chemistry for Technology I, or CHE 151 - Principles of Chemistry I with a minimum grade of C within 5 years

BIO 141 CLINICAL MICROBIOLOGY I.....4-3-3
BIO 141 is the first part of a two part Medical Microbiology course for MLT students. It examines the microbial world with emphasis on the morphology and biological properties of bacteria and their relationship to man and the clinical laboratory. It enables the student to understand how infectious disease is spread, how bacteria are isolated and identified, how microbes are controlled and the nature and use of antibiotics. The procedures used in the identification of medically important bacteria are stressed. **This course is subject to a course fee.**
Prerequisites:
CHE 131 - Chemistry for Technology I or CHE 151 - Principles of Chemistry I with a minimum grade of C
BIO 121 - General Biology I, BIO 130 - Introductory Anatomy and Physiology or BIO 151 - Principles of Biology I with a minimum grade of C

BIO 256 ECOLOGY.....4-3-3
This course provides students with a 4-credit lab science focusing on the interactions of organisms with their biotic and abiotic environments. It will include an overview of the various components of population, community and ecosystem-level interactions, a broad survey of the major terrestrial and aquatic biomes of the world, both local and biosphere-level anthropogenic effects, and restoration ecology. Labs will reinforce important classroom concepts and will include both computer-based mathematical models of species interactions and in-field experiences to acquaint students with the diversity of ecosystem types and ecological processes. **This course is subject to a course fee.**
Prerequisites:
BIO 152 - Principles of Biology II or both BIO 122 - General Biology II and BIO 115 - Environmental Biology

BIO 115 ENVIRONMENTAL BIOLOGY.....3-3-0
This course is designed to explore three aspects of the environment: the interacting components of the environment apart from humans, the impact of humans and contemporary cultures on the environment, and local pollution problems and possible solutions.

BIO 120 CONCEPTS OF BIOLOGY.....4-3-3
A terminal lab-science for non-science majors who desire only one-semester of biology. Topics include a discussion of the fundamental and contemporary issues regarding biological chemistry, cell biology, genetics and the different forms of life. The material is discussed in the context of the principles of evolution and the biology of ecosystems. This course does not satisfy the prerequisites for BIO 131. **This course is subject to a course fee.**

BIO 121H GENERAL BIOLOGY I HONORS.....4-3-3
A study of the unifying principles which govern the operation of all living things; including biological chemistry, energy, metabolism, cell biology and genetics. This course is designed for allied health science majors, biotechnology, A.A.S. majors and other students desiring or requiring this course, a BIO 121/122 sequence or progression to BIO 151. **This course is subject to a course fee.** This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading or original data analysis; forming judgments based on evidence, often from integrative learning; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
ENG 011 - Basic Writing II
REA 011 - Fundamentals of College Reading
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years. May be taken prior or during course.

BIO 151 PRINCIPLES OF BIOLOGY I.....4-3-3
An introduction to the study of life as it applies to all organisms. Primary emphasis is given to biological chemistry, energy & metabolism, cell structure & function, cell reproduction and the classical and molecular aspects of genetics. Laboratory requires hands on experiments related to the course content. **This course is subject to a course fee.**
Prerequisites:
BIO 121 - General Biology I with a minimum grade of C within 5 years
High School Chemistry, CHE 121 - General Chemistry - Inorganic, CHE 131 - Chemistry for Technology I, or CHE 151 - Principles of Chemistry I with a minimum grade of C within 5 years

BIO 122 GENERAL BIOLOGY II.....4-3-3
An emphasis is placed on evolution as it applies to the development, adaptation and taxonomy of organisms. The kingdoms of organisms are discussed in terms of their structure, function, reproduction and adaptation. **This course is subject to a course fee.**
Prerequisites:
BIO 121 - General Biology I

BIO 140 MICROBIOLOGY AND IMMUNOLOGY.....4-3-3
A study of microorganisms and their relationship to infectious disease in humans. The biology of microorganisms; infection and pathogenesis; resistance and immunity. For Allied Health specialties and Science majors. (Laboratory/lecture format). **This course is subject to a course fee.**
Prerequisites:
BIO 121 - General Biology I or BIO 151 - Principles of Biology I with a minimum grade of C within 5 years, or a passing score on the MCCC Biology Placement Test.
High School Chemistry, CHE 121 - General Chemistry - Inorganic, CHE 131 - Chemistry for Technology I, or CHE 151 - Principles of Chemistry I with a minimum grade of C within 5 years

BIO 152 PRINCIPLES OF BIOLOGY II.....4-3-3
Emphasis is placed on the diversity of life from an evolutionary and ecological perspective. Domains, super groups and kingdoms are discussed from the standpoint of structure, function, metabolism, reproduction, development and evolutionary adaptation. Taxa are compared and contrasted with one another and as they relate to development and ecosystem biology. **This course is subject to a course fee.**
Prerequisites:
BIO 151 - Principles of Biology I with a minimum grade of C

BIO 120H CONCEPTS OF BIOLOGY HONORS.....4-3-3
A terminal lab-science for non-science majors who desire only one-semester of Biology. Topics include a discussion of the fundamentals and contemporary issues regarding biological chemistry, cell biology, genetics and the different forms of life. The material is discussed in the context of the principles of evolution and the biology of ecosystems. This course does not satisfy the prerequisites for BIO 131. This course is subject to a course fee. Refer to http://mc3.edu/adm-fin-aid/paying/tuition/course-f ees for current rates. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading or original data analysis; forming judgments based on evidence, often from integrative learning; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

BIO 104 HUMAN BODY IN HEALTH AND DISEASE..... 3-3-0
This introductory course provides students with the essentials of anatomy, the basic functions of the human body and the effects of disease using a systems approach. The normal structural organization and processes of each body system, common diseases, clinical applications, treatments and diagnostic procedures will be examined.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II

BIO 132 HUMAN ANATOMY & PHYSIOLOGY II.....4-3-3
A continuation of BIO 131 with study of the normal structure and function of the human body, with pathological applications where relevant. Systems covered include cardiovascular, lymphatic, respiratory, digestive, urinary, endocrine and reproductive systems. **This course is subject to a course fee.**
Prerequisites:
BIO 131 - Human Anatomy & Physiology I with a minimum grade of C within 5 years

BIO 115H ENVIRONMENTAL BIOLOGY HONORS.....3-3-0
This course is designed to explore three aspects of the environment: the interacting components of the environment apart from humans, the impact of humans and contemporary cultures on the environment, and local pollution problems and possible solutions. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading or original data analysis; forming judgments based on evidence, often from integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

BIO 121 GENERAL BIOLOGY I.....4-3-3
A study of the unifying principles which govern the operation of all living things; including biological chemistry, energy, metabolism, cell biology and genetics. This course is designed for allied health science majors, biotechnology, A.A.S. majors and other students desiring or requiring this course, a BIO 121/122 sequence or progression to BIO 151. **This course is subject to a course fee.**
Prerequisites:
ENG 011 - Basic Writing II
REA 011 - Fundamentals of College Reading
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years. May be taken prior or during course.

BIO 129 FUNCTIONAL HUMAN ANATOMY & PHYSIOLOGY.....4-3-3
This course provides a background in human anatomy and physiology, with emphasis being placed on the skeletal, muscular, cardiovascular, and respiratory systems. This course is oriented towards students in Exercise Science and Wellness degree programs. Dissection of preserved animal tissue is required. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years. May be taken prior or during course.

BIO 130 INTRODUCTORY ANATOMY & PHYSIOLOGY.....4-3-3
This course is a one semester laboratory course, in which the structure and function of the eleven basic human systems is studied with more emphasis placed on the circulatory, endocrine, urinary, and respiratory systems. Oriented toward students in the MLT program. Dissection of preserved animal material is required. **This course is subject to a course fee.**

BIO 241 CLINICAL MICROBIOLOGY II.....4-3-3
A course that introduces Immunology, Virology, Mycology, and Parasitology as well as the immunological basis of serological tests and their uses in the diagnosis of infectious and non-infectious diseases. For students of Medical Laboratory Technology. (Laboratory/lecture format) **This course is subject to a course fee.**
Prerequisites:
BIO 141 - Clinical Microbiology I with a minimum grade of C

BIO 260 GENETICS.....4-3-3
A study of the basic principles and problems of classical, biochemical, and molecular genetics; including Mendelian inheritance, chromosomes, mutation, linkage mapping, DNA structure, gene expression and an introduction to recombinant DNA technology. Laboratory experiments provide an introduction to genetics and molecular biology; including studies of inheritance using organisms such as Drosophila, cloning, gel electrophoresis and the polymerase chain reaction. **This course is subject to a course fee.**
Prerequisites:
BIO 152 - Principles of Biology II with a minimum grade of C
CHE 151 - Principles of Chemistry I with a minimum grade of C

BIOTECHNOLOGY

BIT 120 INTRODUCTION TO BIOTECHNOLOGY.....4-2-3
This course is designed to acquaint students with the field of biotechnology. Topics will include a history of the biopharmaceutical industry, the drug discovery and development processes, medical biotechnology, forensics and bioremediation. Students will learn basic techniques and instrumentation used in biotechnology labs and the fundamentals of recombinant DNA technology. Issues that impact both the industry and the general population such as the regulation of the pharmaceutical industry, stem cell research, GMO's and bioethics will be examined in this course. **This course is subject to a course fee.**
Prerequisites:
ENG 011 - Basic Writing II or ESL 011 - ESL Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehensive Development II
MAT 090 - Fundamentals of Algebra or MAT 011 Beginning Algebra
College Biology or High School Biology (College preparatory or higher) with in the last 5 years

BIT 123 BASIC TECHNIQUES AND INSTRUMENTATION IN BIOTECHNOLOGY.....4-2-3
This course will allow students to gain theoretical and practical, hands-on knowledge of the operation, maintenance and calibration of commonly used and specialized laboratory instrumentation. Laboratory procedures will include solution preparation, aseptic technique, protein separations and assays, electrophoresis and recombinant DNA technology. The students be introduced to the concept of working with good laboratory practices as they pertain to documentation and record keeping. Discussion and implementation of laboratory safety policies will be key components to the entire course. **This course is subject to a course fee.**
Corequisites:
CHE 131 - Chemistry for Technology I or CHE 151 - Principles of Chemistry I (for students intending to transfer). May be taken prior or during course.
BIT 120 - Introduction to Biotechnology. May be taken prior or during course.

BIT 298 BIOTECHNOLOGY INTERNSHIP.....6-1-15
In this course, the student will work under the guidance of a mentor at a local pharmaceutical or biotechnology company (or, if appropriate, an academic or clinical setting) to gain expertise in a research or manufacturing laboratory setting. The course will allow the student not only to gain a first hand work experience at the sponsoring institution but also allow him/her to make contacts necessary for gaining future employment. The lecture portion of this course will consist of topics related to the particular student internships occurring in the present semester. The students will learn to use and evaluate computer based genome databases. Other topics to be covered in the course include resume writing, networking and interviewing skills necessary for the biotechnology industry. Mock job interviews will be conducted with the students. **This course is subject to a course fee.**
Prerequisites:
BIT 120 - Introduction to Biotechnology. GPA of at least a 2.5 for all science courses Permission of the biotechnology coordinator Availability of an internship position Internship pre-test or screening by the instructor Fulfillment of any additional selection criteria imposed by the sponsoring institution.
BIT 123 - Basic Techniques and Instrumentation for Biotechnology. GPA of at least a 2.5 for all science courses Permission of the biotechnology coordinator Availability of an internship position Internship pre-test or screening by the instructor Fulfillment of any additional selection criteria imposed by the sponsoring institution.
BIT 220 - Biotechnology Research. GPA of at least a 2.5 for all science courses Permission of the biotechnology coordinator Availability of an internship position Internship pre-test or screening by the instructor Fulfillment of any additional selection criteria imposed by the sponsoring institution.

BIT 124 MOLECULAR TECHNIQUES.....2-1-2
This course is designed to introduce students to the areas of medical biotechnology and molecular diagnostics. Students will learn the theory behind these areas and will practice molecular techniques used in medical laboratories. **This course is subject to a course fee.**
Prerequisites:
BIO 141 - Clinical Microbiology I with a minimum grade of C
Corequisites:
MLT 235 - Clinical Practicum in MLT I. May be taken prior or during course.

BIT 220 BIOTECHNOLOGY RESEARCH.....4-3-3
This course provides a foundation for the principles of molecular genetics as they apply to research performed in the biotechnology industry. Lectures topics will include transcription, translation, cell cycle regulation and protein expression as they pertain to both prokaryotic and eukaryotic gene regulation. The laboratory will give hands on exposure to recombinant DNA technology such as cloning techniques (restriction digests, pcr, plasmid design, purification and gel electrophoresis), protein purification, ELISA and bacterial and mammalian cell culture. **This course is subject to a course fee.**
Prerequisites:
BIT 120 - Introduction to Biotechnology with a minimum grade of "C"
BIT 123 - Basic Techniques and Instrumentation for Biotechnology with minimum grade of C
CHE 132 - Chemistry for Technology II or CHE 152 - Principles of Chemistry II (For students intending to transfer)

BIT 232 BIOMANUFACTURING.....4-3-3
The course provides a solid foundation in the biomanufacturing process of biopharmaceuticals, including producing them under current Good Manufacturing Practices. Students use bacteria, mammalian, and/or yeast cells to produce human proteins using the tools of manufacturing, such as upstream and downstream procedures and quality control of protein production. **This course is subject to a course fee.**
Prerequisites:
BIT 123 - Basic Techniques and Instrumentation in Biotechnology

BAKING & PASTRY ARTS

BPA 124 INTRODUCTION TO CAKES.....3-1-4
This course provides an introduction to the fundamentals of cake production, assembly, and basic finishing techniques. Topics covered include cake layers, fillings, buttercreams & icings, as well as basic decorating techniques. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 120 - Introduction to Baking & Pastry with a minimum grade of C

BPA 233 CHOCOLATES AND CONFECTIONS.....3-1-4
This course presents the principles of chocolates and confections. Topics covered include the identification, proper usage of chocolate, tempering, and evaluation of chocolates and confections using both hand dipped and molded techniques. Students will also learn the basics of chocolate showpiece techniques. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 220 - Advanced Baking & Pastry with a minimum grade of C

BPA 254 TIERED CAKES & SUGAR ARTISTRY..... 3-1-4
This course covers the advanced preparation and decoration of themed & tiered celebration cakes and showpieces. Students will use various mediums such as rolled fondant, gum paste, pastillage, and cooked sugar. Students will learn how to design and construct tiered cakes and showpieces. Students will learn the importance of time management and proper costing of items. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 124 - Introduction to Cakes with a minimum grade of C

BPA 298B BAKING & PASTRY PRACTICUM III..... 3-0-6
This course is the final component of the Hospitality Institute practicum experience. Students are required to select a college approved practicum site or remain at their previously designated site and perform 90 hours minimum of practical work experience and provide documentation upon completion to the assigned Faculty. Students are required to maintain the standards of the Hospitality Institute while representing the program at their host site. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 298A - Baking & Pastry Practicum II

BPA 198 BAKING & PASTRY PRACTICUM I.....1-0-2
This course is the introductory component of the Culinary Arts Institute practicum experience. Students are required to select a college approved practicum site, perform 30 hours of practical learning and provide documentation upon completion to the Culinary Resource Specialist or assigned Faculty. Students are required to maintain the standards of the Culinary Arts Institute while representing the program at their host site. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**

BPA 220 ADVANCED BAKING & PASTRY..... 3-1-4
This course provides an introduction to advanced baking & pastry techniques and builds upon basic baking techniques from Intro to Baking & Pastry. Topics covered include Custards, Mousse, Bavarian Cream, Ice Cream & Sorbet, Soufflés, Petit Four Glace, and Puff Pastry. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 120 - Introduction to Baking & Pastry with a minimum grade of C

BPA 263 BAKERY PRODUCTION..... 3-1-4
This course provides an introduction to large volume production and plated desserts. Students will learn proper and efficient production of various baked goods based on large batch production. Students will also be introduced to plated desserts and various plating techniques. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 131 - Breads & Rolls with a minimum grade of C
CUL 105 - Safety & Sanitation with a minimum grade of C
Students must have a current ServSafe Managers Certification and/or permission from the Program Coordinator

BPA 131 BREADS & ROLLS..... 3-1-4
This course presents the principles of bread production for hotel, restaurant and industrial food catering establishments. Students will learn the basic techniques of mixing, shaping, baking, and storage of breads and rolls. They will learn a variety of traditional fermentation techniques while looking to develop basic taste and flavor components in their products. Students will learn how to produce specialty breads from a variety of world cultures along with seasonal specialty breads. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 120 - Introduction to Baking & Pastry with a minimum grade of C

BPA 298 BAKING & PASTRY INTERNSHIP.....3-0-16
The Baking & Pastry Internship is an applied work experience designed to solidify learned fundamental skills and to gain a broader professional understanding of the business of the food industry. Students enrolled in the semester-long course will integrate knowledge and skills learned in the classroom within a professional setting. Students are required to complete 240 hours of work experience. Students on internship will receive feedback from their supervisor and submit assignments to record and reflect on their work experience. **This course is subject to a course fee.**

BPA 298A BAKING & PASTRY PRACTICUM II..... 3-0-6
This course is the second component of the Hospitality Institute practicum experience. Students are required to select a college approved practicum site or remain at their previously designated site and perform 90 hours minimum of practical work experience and provide documentation upon completion to the assigned Faculty. Students are required to maintain the standards of the Hospitality Institute while representing the program at their host site. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 198 - Baking & Pastry Practicum I

BPA 120 INTRODUCTION TO BAKING AND PASTRY.....3-1-4
This course presents the basic principles of baking for foodservice establishments. This is a foundations course which includes terms, equipment, and an introduction to the basic mechanics of the pastry kitchen. Topics covered include the identification, production, and evaluation of quick breads, cookies, macarons, meringues, pate a choux, pastry cream and pies. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**

BPA 253 PLATED DESSERTS & MODERN TRENDS.....3-1-4
This course provides an introduction to the art of plated desserts and nutritional needs. Students will prepare the different categories of plated desserts including hot, cold, chocolate, fruit, nut, custard and frozen. Students will also prepare various sauces, garnishes and be introduced to modern techniques and trends. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
BPA 220 - Advanced Baking & Pastry with a minimum grade of C

COMPUTER & INFO SYST

CIS 110 COMPUTER INFORMATION SYSTEMS FOR MANAGEMENT..... 3-2-2
This course introduces non-computer science majors to the fundamentals of computer hardware and software and their integration into management information systems. Specific software topics will include word processing, spreadsheet, presentation, database management and operating systems. Using these skills, students will solve problems that they will most likely encounter in a digital world. Additional topics will include computer hardware analysis, electronic communications, the Internet, computer networking, social implications of computing and other current computer topics.

CIS 1101 PROGRAMMING FOR EVERYONE.....3-2-2
The course exposes students with no computing background to key concepts of programming, logical thinking and modern technical fluency. Students develop the essential concepts of logic, design, and problem-solving skills pertinent to their discipline. Students will apply these skills by developing projects and writing programs using tools designed for students with no prior programming experience. The emphasis of the course is to learn concepts and techniques that are common to most programming languages and to gain exposure to concepts required for technically fluent citizens. This course is appropriate for non-information technology majors.

CIS 111B COMPUTER SCIENCE II: OBJECT-ORIENTED PROGRAMMING..... 3-2-2
This course introduces students to the object-oriented programming paradigm and focuses on the definition and use of classes and the fundamentals of object-oriented design. It is designed for students that already have a firm foundation in procedural programming concepts. A high-level programming language such as Java or C++ is used. This is the second course for computer majors.
Prerequisites:
CIS 111 - Computer Science I: Programming and Concepts with a minimum grade of C or equivalent experience in procedural programming techniques

CIS 119 USER INTERFACE/EXPERIENCE DESIGN..... 3-2-2
This course will teach a student the knowledge and skills required to design and create cohesive and consistent user experiences and simple functional interface design with a focus on maximizing productivity and user satisfaction. Students will learn about interface elements that anticipate what users might need to do and use them to facilitate actions that help with task completion, efficiency, and satisfaction. Students will also learn how to validate the designs created with user testing.
Prerequisites:
CIS 114 - Web Design and Development

CIS 121 TEACHING WITH TECHNOLOGY IN EARLY CHILDHOOD.. 3-3-0
This course focuses on technology integration for PreK-4th grade classrooms. Students will explore, utilize, evaluate, and integrate technology into their classrooms and curriculum. Students will be involved in many aspects of this integration, including lesson plan writing and unit designing. Students will develop the skills for enriching their classrooms with various types of technology.

CIS 137 THE LANGUAGE OF DIGITAL MEDIA..... 3-2-2
This course introduces students to the vocabulary, tools and fundamental techniques of manipulating digital audio and video content. Computer systems make it accessible for new users to take audio and digital information as input, to combine it using custom rules they develop and to produce new kinds of sounds, songs and interactive videos. **This course is subject to a course fee.**

CIS 158 WINDOWS SERVER ADMINISTRATION AND SUPPORT.....3-2-2
This course provides the student with the knowledge and skills necessary to perform day-to-day administrative tasks in a single or multiple domain Microsoft Windows Server based network. Students will learn how to implement system security, create users, establish network printing, backup system data and manage system resources. This course will also include topics on installation, configuration and troubleshooting in a Microsoft Windows environment using the most current version of the Server and Client operating systems. Virtualization of Student Servers will be employed throughout this course.
Prerequisites:
CIS 155 - PC Applications on Networks or CIS 111 - Computer Science I: Programming and Concepts
Corequisites:
CIS 170 - Introduction to Networks (Cisco Semester 1), or equivalent experience. May be taken prior or during course.

CIS 166 INTRODUCTION TO CLOUD COMPUTING.....3-2-2
This course introduces the evolution, architecture, structure, functions, components, and models of Cloud computing. Students will learn about computing principles and concepts involved and what it means from a business and technical perspective. The course will also cover the objectives of the CompTIA Cloud Essentials certification examination.

CIS 206 AWS SOLUTIONS ARCHITECT.....3-2-2
This course is designed to teach solutions architects how to optimize AWS Cloud resources and services to build an optimal Information Technology infrastructure. Course topics will include in-depth analysis of AWS services and the Well-Architected framework. This course will help students prepare for the AWS Solutions Architect exam.
Prerequisites:
CIS 205 - AWS Cloud Practitioner

CIS 155 PC APPLICATIONS ON NETWORKS.....3-2-2
This course will provide an overview of several applications software packages available to use on a local area network. Software covered will include DOS, spreadsheet, word processing, data base, windows, file management, performance tuning, and virus detection software. The impact of running this software on a network will be emphasized.

CIS 172 ENTERPRISE NETWORKING, SECURITY AND AUTOMATION.....3-3-2
This course discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPSec, OSPF and virtual private network (VPN) operations in a complex network.
Prerequisites:
CIS 171 - Switching, Routing and Wireless Essentials (Cisco Semester 2) within the past 3 years

CIS 204 AZURE CLOUD ADMINISTRATOR.....3-2-2
This course is designed to develop skills in Azure Cloud computing administration. Specific training will be provided in the following technical tasks: manage Azure identities and governance; implement and manage storage; deploy and manage Azure compute resources; configure and manage virtual networking; and monitor and back up Azure resources. This course will help students prepare for the Azure Cloud Administrator exam.
Prerequisites:
CIS 203 - Azure Cloud Fundamentals
CIS 158 - Windows Server Administration and Support

CIS 205 AWS CLOUD PRACTITIONER.....3-2-2
This course is designed to develop a fundamental understanding of the AWS cloud computing platform independent of any specific technical role. Course topics include AWS Cloud concepts, core AWS services, security, architecture, database concepts, pricing, and support to build your AWS Cloud knowledge. This course will help students prepare for the AWS Certified Cloud Practitioner exam.
Prerequisites:
CIS 166 - Introduction to Cloud Computing
CIS 111 - Computer Science I: Programming and Concepts
CIS 170 - Introduction to Networks (Cisco Semester I)

CIS 207 INTRODUCTION TO COMPUTER FORENSICS..... 3-2-2
This course will teach a student the knowledge and skills required to identify, track, and prevent cybercrimes. Students will also learn about the cyber security and investigation techniques, safeguarding of information and enhancing network and data security, while performing basic troubleshooting to identify and establish steps to prevent future attacks. The course will also cover the objectives of the EC-Council Computer Hacking Investigator (CHFI) certification examination.
Corequisites:
CIS 275 - Network Security Fundamentals OR CIS 208 - Implementing Network Security. May be taken prior or during course.

CIS 208 IMPLEMENTING CISCO CYBER OPERATIONS..... 3-2-2
This course will teach a student the knowledge and skills required to build, scale, secure, and defend the networks that are used in our businesses and daily lives. Students will also focus on various types of cyber-attacks and use tools and techniques in a virtual machine environment that allows them to create, implement, monitor, and detect malicious activity. The hands-on training is performed in this environment so that students can gain the necessary skills and knowledge needed to thwart these and future cyber-attacks in a Security Operations Center environment This course will prepare a student for entry level cyber security jobs and aligns with the CISCO CyberOps Associate certification.
Prerequisites:
CIS 171 - Switching, Routing and Wireless Essentials with a minimum grade of C
Corequisites:
CIS 141 - Introduction to Linux. May be taken prior or during course.

CIS 212 ADVANCED HTML AND CSS..... 3-2-2
This course will provide advanced knowledge of Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS) to include the breadth of information needed to start creating the next generation of HTML websites by covering the full new HTML ecosystem. The extended usage of CSS that is required for proficiency in all core aspects of modern website creation. These skills and knowledge can lead to jobs like front-end engineer or designer, designer/developer, User Interface or app designer, web editor, web project manager and small web business owner.
Prerequisites:
CIS 114 - Web Design and Development

CIS 235 OBJECT ORIENTED PROGRAMMING IN C++..... 3-2-2
This course will teach students C++. Emphasis will be placed on object oriented programming and design, programmer defined data types (objects), object derivation, polymorphism, function overloading, object based abstract data structures (linked lists, stacks, collections), and event oriented program control.
Prerequisites:
CIS 111 - Computer Science I: Programming and Concepts

CIS 240 MOBILE APPLICATION DEVELOPMENT.....3-2-2
This is a comprehensive course on how to develop applications for phones, tablets and other mobile devices targeted for business needs. Students will learn how to utilize a modern mobile development environment using standard mobile development tools to build applications for distribution. Students will learn how to design mobile interfaces and how to apply mobile technology to solve common business needs. Although students may use the College's computer labs to complete their course work, it is highly recommended that students have access to a relevant mobile device or virtual machine to complete work outside of class.
Prerequisites:
CIS 111B - Computer Science II: Object-Oriented Programming with a minimum grade of C, or prior object-oriented programming experience and permission of the instructor

CIS 245 DATABASE MANAGEMENT SYSTEMS USING SQL.....3-2-2
This course is designed to introduce the student to the concepts involved in designing and using a database management system. Topics to be considered in the course will include discussions of various types of database structures, manipulations of a database structure through applications, query techniques, and an investigation into a database language.
Prerequisites:
CIS 111 - Computer Science I: Programming and Concepts or CIS 1101 - Introduction to Problem Solving and Programming

CIS 246 DATA INTEGRATION FOR WEB APPLICATIONS.....3-2-2
This course is designed to introduce the student to the basic concepts involved in designing and integrating data management systems within web and mobile based applications. Topics covered in the course will include discussions of data integration design, data query techniques, API's for data access, data privacy issues, cyber security challenges.
Prerequisites:
CIS111B - Computer Science II: Object-Oriented Programming with a minimum grade of C
CIS 140 - Client Side Web Development with a minimum grade of C

CIS 120 TEACHING WITH TECHNOLOGY IN MIDDLE YEARS AND SECONDARY EDUCATION..... 3-3-0
This course will give students the opportunities to explore, utilize, evaluate, and integrate technology into their classrooms and curriculum. Students will be involved in many aspects of this integration, including lesson plan writing and unit designing. Students will develop the skills for enriching their classrooms with various types of technology. This course focuses on technology integration for grades 5-12 classrooms.

CIS 142 LINUX ADMINISTRATION..... 3-2-2
This course provides extended knowledge of the Linux Operating System. Advanced features and benefits of these operating systems including system administration, networking, configuration, communications, and control will be studied. Students will participate in complex laboratory assignments. The objectives of this course will align with a major industry certification exam.
Prerequisites:
CIS 141 - Introduction to Linux

CIS 111 COMPUTER SCIENCE I: PROGRAMMING AND CONCEPTS.....3-2-2
This course introduces students to fundamental techniques, concepts and vocabulary of procedural programming and computer science. Emphasis is placed on programming in a high-level computer language such as Java or C++. This is the first course for computer majors.
Prerequisites:
MAT 100 - Intermediate Algebra with a minimum grade of C or equivalent, or placing above MAT 100 on the mathematics placement test OR CIS 1101 - Programming for Everyone with a minimum grade of C.

CIS 113 IT HARDWARE ESSENTIALS AND SUPPORT..... 3-2-2
Students develop the necessary skills to support personal computers by solving common PC hardware and software problems. Students will learn to install and maintain a variety of processors, operating systems, and applications. Successful completion of the course prepares students for the A+ Certification examination sponsored by the Computing Technology Industry Association.

CIS 114 WEB DESIGN AND DEVELOPMENT.....3-2-2
This hands-on course introduces students to the fundamental skills required to build a modern and standards compliant Web site. A specific focus is placed on usability design and the use of HTML and CSS standards to create positive user experiences across a variety of devices and browsers. Students will learn the tools and skills necessary to build, organize, and maintain Web sites while following industry best practices in interface design and usability.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

CIS 126 COMPUTER ARCHITECTURE & ORGANIZATION..... 3-2-2
This course is designed to explore how a computing system works and introduces the student to the organization and architecture of computer systems using the Assembly programming language. Computer Science students will gain insight into the functional components of a computer system. Topics covered will include digital logic, data representation, interfacing and I/O strategies, memory architecture, a computer's functional organization, and multiprocessing. The importance of CPU clock speed, cache size, bus organization, and number of core processors will also be discussed
Prerequisites:
CIS 111 - Computer Science I: Programming and Concepts with a minimum grade of C

CIS 170 INTRODUCTION TO NETWORKS (CISCO SEMESTER I).....3-2-2
This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.
Corequisites:
MAT 100 - Intermediate Algebra, MAT 103 - Foundations of Mathematics, or MAT 106 - Mathematics Applications, or MAT 130 - Probability and Statistics, or MAT 131 - Introduction to Statistics I, or MAT 140 - Finite Mathematics for Business, or MAT 188/189 - Calculus with Review of Function I & II, or MAT 190 - Calculus and Analytic Geometry I. May be taken prior or during course.

CIS 203 AZURE CLOUD FUNDAMENTALS..... 3-2-2
This course is designed to develop a fundamental understanding of the Azure cloud computing platform independent of any specific technical role. Course topics include Azure Cloud concepts, core Azure services, security, architecture, database concepts, pricing, and support to build your Azure Cloud knowledge. This course will help students prepare for the Azure Cloud Fundamentals exam.
Prerequisites:
CIS 166 - Introduction to Cloud Computing
CIS 111 - Computer Science I: Programming and Concepts
CIS 170 - Introduction to Networks (Cisco Semester I)

CIS 231 PROJECT MANAGEMENT.....3-3-0
This course will introduce students to key aspects of contemporary project management. Through hands-on exercises and case studies, students will learn the project planning process in detail, culminating in the creation of a baseline plan and budget using a state-of-the-art project management tool. Topics addressed will be project scope and objectives, deliverables, milestones, tasks, work breakdown structure, responsibility and authority, project network, critical path analysis, costs, resource allocation, and auditing.
Prerequisites:
CIS 110 - Information Systems for Management with Computer Applications
MGT 111 - Principles of Management or equivalent business experience

CIS 275 NETWORK SECURITY FUNDAMENTALS.....3-2-2
This course will introduce students to the basic elements of establishing a secure network, including security objectives, security architecture, security models and security layers. Students will analyze what elements contribute to high quality risk management, network security policy, and security training. This course focuses on the five security keys: Confidentiality, Integrity, Availability, Accountability, and Auditability. Successful completion of this course prepares students to take appropriate industry certifications in the security field.
Prerequisites:
CIS 170 - Introduction to Networks (Cisco Semester 1)

CIS 112 COMPUTER SCIENCE III: DATA STRUCTURES & ALGORITHMS..... 3-2-2
Building on the concepts learned in CIS 111B, the fundamental concepts of data structures and algorithms are explored. This course will apply software engineering techniques to the design and implementation of programs that manipulate complex data structures. Effective software engineering methods are stressed as well as developing good programming style. A high-level compiler language such as Java or C++ will be used. This is the third course for computer majors.
Prerequisites:
CIS 111B - Computer Science II: Object-Oriented Programming with a minimum grade of C

CIS 140 CLIENT-SIDE WEB DEVELOPMENT.....3-2-2
Students will learn the Javascript programming language and how to use Javascript to build dynamic web sites that take advantage of modern Web browser features. Topics will include the Document Object Model (DOM), XML and JSON data formats, Hypertext Transfer Protocol (HTTP) and the XMLHttpRequest object. Students will learn how to combine these and other technologies to build Ajax applications.
Prerequisites:
CIS 114 - Web Design and Development
CIS 111B - Computer Science II: Object-Oriented Programming

CIS 141 INTRODUCTION TO LINUX.....3-2-2
This course is designed to provide students with a fundamental knowledge of the conventions, techniques, and terminology of the Linux Operating System. Students will learn the skills necessary to utilize, administer, and securely install Linux in both networked and desktop environments.

CIS 151 SYSTEMS ANALYSIS AND DESIGN..... 3-2-2
This course reviews and applies traditional (life cycle) systems development methodologies implemented by project teams and including reporting responsibility to a systems development steering committee. The life cycle followed incorporates an initial investigation, a feasibility study, systems analysis, systems design, technical design, program specification, and implementation planning.
Prerequisites:
CIS 111 - Computer Science I: Programming and Concepts

CIS 171 SWITCHING, ROUTING AND WIRELESS ESSENTIALS (CISCO SEMESTER 2)..... 3-2-2
This course provides students with the necessary skills to design, implement, and configure network switches and routers in a converged network environment. Students will learn about the appropriate protocols and technologies to build a secure and efficient small-to-medium sized network. The implementation of wireless technology, Virtual LANs, VTP, and Inter-VLAN routing in both IPv4 and IPv6 networks will be discussed. The course will also examine network vulnerabilities and security best practices to defend against them.
Prerequisites:
CIS 170 - Introduction to Networks (Cisco Semester 1) (Or Cisco CCNA 1 taken at any other Cisco Academy) within the past 3 years

CIS 177 INTRODUCTION TO 3D MODELING..... 3-2-2
This course introduces the fundamental techniques, concepts, and vocabulary of 2D and 3D art development for electronic games and simulations. Students will use 2D and 3D development tools and apply appropriate design methodologies and principles to create graphic images. Students will be introduced to 3D game engine technology and the process of importing and manipulating art objects using popular game engines and graphics tools.

CIS 198 COOPERATIVE INTERNSHIP IN COMPUTER & INFORMATION SYSTEMS I.....3-0-15
This course consists of employment in a college-approved organization to enable the student to gain insight into a computer operation. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance.
Prerequisites:
CIS 111 - Computer Science I: Programming and Concepts

CIS 214 ADVANCED 3D MODELING.....3-2-2
This course provides the student with an advanced understanding of 3D graphic creation and modeling. Students will learn advanced techniques of rendering, texturing, and lighting on both characters and structures. Students will create a comprehensive class project incorporating the techniques taught throughout the semester. Students will also engage with the practices of the wider 3D entertainment industry to develop specific skills and a personal work flow for 3D modelling and texturing. Current industry standard application software will be used.
Prerequisites:
CIS 177 - Introduction to 3D Modelling

CIS 176 GAME DESIGN PRACTICE AND THEORY..... 3-2-2
This course introduces the fundamental techniques, concepts, and vocabulary of electronic game and simulation development. Students will explore the historical, social, and cultural effects of electronic games while applying modern game design and development methodologies and principles to create their own game.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C
Corequisites:
MAT 090 - Fundamentals of Algebra. May be taken prior or during course.

CIS 209 ETHICAL HACKING..... 3-2-2
This course will teach a student the knowledge and skills required to look for weaknesses and vulnerabilities in the computer systems and networks with a view to enhance defense against cyber-attacks. Students will also learn about Information System Security, Trojans, Viruses and Worms and understand the concepts of Cryptography and learn the steps to implement security controls to detect and prevent cyber-attacks. The course will also cover the objectives of the EC-Council Certified Ethical Hacker (CEH) certification examination.
Prerequisites:
CIS 275 - Network Security Fundamentals OR CIS 208 - Implementing Network Security

CIS 213 ADVANCED JAVASCRIPT.....3-2-2
This course will teach a student the advanced knowledge and skills required to create modern, dynamic, interactive web sites using advanced toolsets sets. Students will learn on how to define modules and build templates; define custom directives, implement client-side services that interact with web servers and build dynamic browser views to provide rich user interaction and create custom services you can easily reuse.
Prerequisites:
CIS 140 - Client-Side Web Development

CIS 215 DECISION MAKING USING SPREADSHEETS.....3-2-2
This course provides comprehensive instruction in using spreadsheet software as a productive decision making tool. Topics covered will include spreadsheet basics, pivot tables, slicers, what-if scenario tools, data base management, internal functions, data analysis, macro programming and graphing. Additional topics will include file organization, cloud computing, computer hardware analysis, electronic communications, selecting the best software tool, data privacy and security.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 Beginning Algebra, or MAT 011B Beginning Algebra with Review of Arithmetic with a minimum grade of C within the past 5 years
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

CIS 216 COMPUTER SCIENCE CAPSTONE.....3-2-2
This final capstone course will bring together students to work in teams designing and building a significant project over the course of the semester. Students will learn about collecting user requirements, project management and team organization, processes and tools. Students will also work on building a portfolio, crafting a professional resume, and defining a strategy to advance their career post course. Professional skills, such as ethical conduct, interviewing, collaboration, teamwork and communication skills, will be discussed and practiced. It is recommended that this course be taken in the final semester of study.
Prerequisites:
CIS 111B - Computer Science II: Object-Oriented Programming with a minimum grade of C
Corequisites:
CIS 245 - Database Management Systems using SQL OR CIS 246 - Data Integration for Web Applications. May be taken prior or during course.
CIS 151 - Systems Analysis and Design. May be taken prior or during course.

CIS 241 SERVER-SIDE WEB DEVELOPMENT.....3-2-2
This course will teach students how to develop dynamic web sites using server-side technologies. Gaining hands-on experience with back end or server-side development used within web-based applications that process data, access files on a server, and interact with a database. Students will learn the capabilities of appropriate development frameworks for web-based applications and services.
Prerequisites:
CIS 140 - Client-Side Web Development with a minimum grade of C
Corequisites:
CIS 246 - Data Integration for Web Applications OR CIS 245 - Database Management Systems using SQL. May be taken prior or during course.

CIS 257 NETWORK PLANNING, PROJECT MANAGEMENT AND IMPLEMENTATION IMPLEMENTATION CAPSTONE.....3-2-2
This course will provide a final capstone project experience on planning, implementing and managing a Local Area Network using Microsoft Server Administration, Linux and CISCO routing skills. The course will introduce students to key aspects of project management such as defining the project scope, identifying deliverables, establishing timelines, and evaluating project cost. Students will also work on career planning through completing an industry site visit with a Network Administrator, crafting a professional resume, and defining a strategy to advance their career post course. Professional skills, such as ethical conduct, interviewing, collaboration, teamwork and communication skills, will be discussed and practiced. It is recommended that this course be taken in the final semester of study.
Prerequisites:
CIS 171 - Switching, Routing and Wireless Essentials (Cisco Semester 2)
CIS 141 - Introduction to Linux
CIS 158 - Windows Server Administration and Support

CIS 276 GAME & SIMULATION PROGRAMMING FOUNDATIONS....3-2-2
This course introduces students to the necessary mathematical techniques and physical modeling principles for electronic game and simulation development. Students will learn mathematical tools underlying the development of gaming software algorithms. They will use a range of software products to implement these algorithms and modeling methods.
Prerequisites:
CIS 111B - Computer Science II: Object-Oriented Programming with a minimum grade of C

CIS 258 ADVANCED WINDOWS SERVER ADMINISTRATION AND SUPPORT.....3-2-2
This course provides the students with the knowledge and skills necessary to install, configure, manage, and support a Windows infrastructure. Students will learn advanced deployment and configuration concepts, including the implementation of: Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), Windows Internet Naming Service (WINS), network security, Remote Access Services (RAS), Internet Authentication Server (IAS), and Remote Installation Services (RIS). In addition, students will learn how to install, manage, configure and administer Windows Server 2008 R2/Windows 7 Active Directory. Virtualization of Student Servers will be employed throughout this course.
Prerequisites:
CIS 158 - Windows Server Administration and Support

CRIMINAL JUSTICE

CJS 198 INTERNSHIP CRIMINAL JUSTICE.....
This course consists of employment in a college-approved organization to enable the student to gain insight into selling and merchandising practices of distributors. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**

CJS 201 INTRODUCTION TO CRIMINAL FORENSICS (CRIMINALISTICS).....4-3-1
This course will familiarize students with the basic principles and uses of forensic science in the context of the American criminal justice systems. Forensic science, which is the study and application of science to legal processes, will be related to the collection, examination, evaluation and interpretation of evidence. The field of forensics encompasses many areas in both the physical and social sciences. This course will focus on the application of modern science to physical evidence collection, preservation, and analysis, which, if properly utilized, can be crucial in the resolution of social and legal disputes. This course will review and illustrate through actual laboratory demonstration, basic applications and methodologies in the biological, physical, and behavioral sciences to questions of evidence and law.
Prerequisites:
CJS 100 - Introduction to Criminal Justice
CHE or BIO lab course (Recommended)

CJS 240 THE CORRECTIONAL PROCESS.....3-3-0
The concept, rationale, and administration of the adult correctional institution will be the focal point in this introductory course dealing with the American correctional process. Probation and parole and the role each plays in the total penal system will also be examined. The course will conclude with a look at what appears to be future alternatives in dealing with the offender in society.
Prerequisites:
CJS 100 - Introduction to Criminal Justice

CJS 107 CRIMINAL PROCEDURE & RULES OF EVIDENCE.....3-3-0
This course provides an in-depth exploration of the laws and constitutional cases governing criminal procedure in the American criminal justice system. The course focuses on the "police phase" of the criminal process, including custody and seizures, arrests, interrogation, identification procedures. It also provides a survey of the rules of evidence in criminal proceedings, their origins and history, the use of both direct and circumstantial evidence in proving guilt or innocence, witness reliability, hearsay, and the use of inference. The course also highlights both procedural and evidentiary rules governing the investigative and prosecutorial phases of law enforcement, including the role of investigating grand juries, and the defense and police misconduct aspects of entrapment.
Prerequisites:
CJS 100 - Introduction to Criminal Justice
CJS 105 - Criminal Law

CJS 120 FORENSIC ACCOUNTING.....3-3-0
Forensic Accounting is the application of accounting methods and financial techniques to assist in solving economic-based crimes. The course includes the discussion of criminal statues relating to financial crimes, fraud investigation and prevention, techniques used in solving financial crimes, interviewing, rules of evidence, sources of information,forensic accounting procedures, and current issues in financial investigations.
Prerequisites:
ACC 115 Financial Accounting with a minimum grade of C

CJS 200 CRIMINAL INVESTIGATION.....3-3-0
The theory of investigation, conduct at crime scenes, the collection, handling and preservation of criminal evidence and other criminal investigation practices and procedures, discussion of scientific aids and their uses in investigation; preparation of cases, emphasizing methods and problems of information and interrogation.
Prerequisites:
CJS 100 - Introduction to Criminal Justice

CJS 205 ETHICS & AMERICAN CRIMINAL JUSTICE SYSTEM.....3-3-0
"Ethics and the American Criminal Justice System" presents an introduction to the ethical issues arising in the law, to the methodology by which ethical deliberations are resolved, and to the personal-societal implications of decision-making. The course will focus upon the judicial system as an institution, the legal system philosophy, criminality, liability, corrections, the role of law enforcement and current legal issues.
Prerequisites:
CJS 100 - Introduction to Criminal Justice

CJS 250 TERRORISM & COUNTER-TERRORISM..... 3-3-0
Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and attics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values.
Prerequisites:
A passing grade in at least one introductory level course in any of the following: Anthropology, Criminal Justice Studies, Economics, Geography, History, Political Science, Psychology or Sociology

CJS 100 INTRODUCTION TO CRIMINAL JUSTICE.....3-3-0
The course introduces the student to the American system of criminal justice. Its growth and development will be examined with emphasis placed on the various subsystems of the criminal justice system (substantive and procedural criminal law; police, prosecution, defense, courts, institutional and community corrections; and the juvenile justice system). Additionally, contemporary issues that challenge the functional efficiency and effectiveness of the criminal justice system will be addressed. Students will learn the terminology of the field, have the opportunity to evaluate personal attitudes and values regarding crime and responses to crime.

CJS 251 INTRODUCTION TO HOMELAND SECURITY.....3-3-0
This course will introduce students to the key vocabulary and concepts of homeland security. The course will cover the essential structures, functions, accountabilities, and working relationships of the principal governmental agencies charged with homeland security duties and missions, and will include an in-depth survey of the principal directorates and sub-agencies within the U.S. Department of Homeland Security. The course will cover the evolution of homeland security as a concept, in its historical context, and students will be introduced to the body of federal, state, and local law, as well as international law, impacting the homeland security mission. Special attention will be devoted to key provisions of the USA PATRIOT Act of 2001, the Homeland Security Act of 2002, and the Emergency Management Reform Act of 2006. The course will survey and examine from an "all hazards" standpoint, the most critical natural and man-made threats confronting homeland security, and students will be introduced to the still-evolving "National Strategy for Homeland Security" as statement of unified federal policy.

CJS 105 CRIMINAL LAW..... 3-3-0
An introduction to the origins and functions of the substantive criminal law of Pennsylvania; a survey and analysis of the elements of major offenses in common law and under modern penal codes, and the available defenses; a consideration and discussion of leading judicial interpretation of penal codes and criminal law.

CJS 220 CRIMINOLOGY..... 3-3-0
A study of crime and delinquency patterns, their causes, and remedial measures, emphasizing social, economic, and psychological forces involved in the shaping of criminal behavior. The role of law enforcement and the functioning of treatment and punishment models will also be discussed.
Prerequisites:
CJS 100 - Introduction to Criminal Justice

CJS 235 INTRODUCTION TO JUVENILE JUSTICE SYSTEM..... 3-3-0
This course introduces the student to the origins and development of the juvenile justice system in the United States. Students will study the juvenile justice system and child welfare systems from historical, legal, and institutional perspectives. Students will become familiar with the substantive law of Pennsylvania in terms of delinquency and child abuse with some international comparisons. Problems and theories of delinquency, interdisciplinary communication and diversion of selected juvenile offenders from the formal justice system will be explored. Each component of the system: police, courts, probation and community corrections are analyzed and recommendations for improvement are considered. The community and the schools and their role in delinquency prevention will be covered. Lastly, there will be a study of the nature, magnitude, and social location of youth crime; analysis of causal theories, and an overview of programs aimed at delinquency prevention and control.
Prerequisites:
CJS 100 - Introduction to Criminal Justice

CHINESE

CHI 101 ELEMENTARY MANDARIN CHINESE I.....3-3-0
Elementary Mandarin Chinese I is an introduction to the Mandarin language. Students will learn to master basic communicative situations in Mandarin Chinese at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Mandarin Chinese. In addition, students will learn about the various cultures in Mandarin Chinese speaking countries.
Prerequisites:
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II

CHI 102 ELEMENTARY MANDARIN CHINESE II.....3-3-0
Elementary Mandarin Chinese II is the continuation of Elementary Mandarin Chinese I. Students will continue to master basic communicative situations in Mandarin Chinese at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in Mandarin Chinese. In addition, students will identify the linguistic and cultural diversity of Chinese speaking countries.
Prerequisites:
CHI 101 - Elementary Mandarin Chinese I

COMMUNICATION STUDIES

CMS 120H PUBLIC SPEAKING HONORS..... 3-3-0
A human performance course which focuses upon the theory, practice, and criticism of different types of informative and persuasive speeches. Emphasis will be placed on strategies of audience analysis, organizational methods, and the use of ethical principles in speech preparation and delivery. Presentation of speeches that identify and analyze current societal needs will lead to student action that will help alleviate at least one of those needs.
This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading, artistic literacy, or original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Search Keyword: Speech

Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II and ESL 009 - English as a Second Language: Oral for students who place into ESL courses
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

CMS 125 INTRODUCTION TO PUBLIC RELATIONS.....3-3-0
Students will learn basic concepts necessary to understand what public relations is and how it is practiced in a variety of settings. The course will begin with an examination of the theoretical and conceptual framework that supports the field of public relations. Students will then have an opportunity to apply theory to practice by helping a campus organization accomplish a public relations goal. Specific emphasis will be placed on the four step public relations process.
Search Keyword: Speech

Prerequisites:
ENG 101 - English Composition I
CMS 110 - Speech Communication or CMS 120 - Public Speaking

CMS 110 SPEECH COMMUNICATION..... 3-3-0
A human performance course designed to improve oral communication skills in public speaking, group process, and interpersonal situations. Communication theory will be presented and practice will be provided with audience/situation analysis, organizational strategies, critical listening and thinking, and use of ethical principles and evidence in the preparation and delivery of informative and persuasive speeches, participation in decision-making groups, and analysis of interpersonal relationships. The incorporation of research from credible sources into all communication contexts, with a specific emphasis on public communication, will be emphasized.
Search Keyword: Speech

Prerequisites:
Students must have successfully completed or tested out of ENG 010A - Basic Writing,ENG 011 - Basic Writing II, or ESL 011 - Basic Writing II.
Students must have successfully completed or tested out of REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary & Reading Comprehension Development II
Successful completion of ESL 009 is required for students who place into ESL courses

CMS 202 PERSUASION..... 3-3-0
This course examines theories and techniques associated with persuasion, ranging from those centered on interpersonal settings to those featured in mass mediated campaigns. The effects of persuasive messages on attitudes, opinions, values and behaviors will be considered from the perspective of consumers and practitioners. Both oral and written persuasion will be studied with the goal of engaging students in the role that persuasive messages play in their lives.
Search Keyword: Speech

CMS 113 VOICE AND ARTICULATION..... 3-3-0
This course is designed for students in communication-intensive careers such as theater, broadcasting, sales, or teaching, as well as those in the English Second Language (ESL) Program to help them improve their vocal skills. Exercises and techniques to improve English pronunciation and articulation, vocal projection, rhythm and fluid delivery, projection, and resonance, will be taught. The International Phonetic Alphabet will also be covered. Application and practice will be required.
Search Keyword: Speech

Prerequisites:
Students must have successfully completed or tested out of ENG 010A - Basic Writing or ENG 011 - Basic Writing II or REA 011 - Fundamentals of College Reading or ESL - 009 English as a Second Lang: Oral

CMS 115 INTERPERSONAL COMMUNICATION.....3-3-0
Although we regularly engage in interpersonal communication in our daily lives, we seldom stop to reflect on those interactions. In this course we will examine theories, concepts, and research associated with interpersonal communication and their applications for ethical and effective interaction in personal and professional settings. Emphasis is placed on the communication process, perception, listening, self concept and self disclosure, gender and cultural differences, verbal and nonverbal communication, conflict, power, and relationship development and dissolution. Class activities, discussions, readings and assignments are designed to develop communication skills necessary for interpersonal effectiveness and competency.
Search Keyword: Speech

Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II and ESL 009 - English as a Second Language: Oral for students who place into ESL courses
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

CMS 230 COMMUNICATION IN ORGANIZATIONS.....3-3-0
A human performance course which introduces and builds the communication skills necessary for working within business and professional settings. Emphasis will be placed on developing a working knowledge of theory and improving skills for interviewing, working in groups and teams, and presentational speaking. This course is suggested for students in business and communication as well as members of the community who are involved in organizations.
Search Keyword: Speech

Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II and ESL 009 - English as a Second Language: Oral for students who place into ESL courses
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

CMS 120 PUBLIC SPEAKING.....3-3-0
A human performance course which focuses upon the theory, practice, and criticism of different types of informative and persuasive speeches. Emphasis will be placed on strategies of audience analysis, organizational methods, and the use of ethical principles in speech preparation and delivery. Presentation of speeches that identify and analyze current societal needs will lead to student action that will help alleviate at least one of those needs.
Search Keyword: Speech

Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II and ESL 009 - English as a Second Language: Oral for students who place into ESL courses
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

CMS 225 WRITING FOR PUBLIC RELATIONS CAMPAIGNS.....3-3-0
Students will receive instruction and writing practice designed to develop professional writing skills used by entry-level public relations practitioners. The course emphasizes the different approaches required for specific audiences and media, beginning with a review of the four-step public relations process. Students will then have an opportunity to practice their writing skills by designing a public relations campaign for a campus or community organization in a service-learning project.
Search Keyword: Speech

Prerequisites:
CMS 125 - Introduction to Public Relations

CULINARY ARTS

CUL 105 SAFETY & SANITATION.....2-2-0
This course provides an overview of the issues relating to the standards of food safety and sanitation within the hospitality industry. Specific topics include microorganisms, employee training, equipment purchasing, integrated pest management, cleaning and sanitizing, and other related subjects. Students prepare for and take an industry recognized food safety and sanitation manager certification test. As part of the course, students must pass the ServSafe certification exam from the National Restaurant Association (NRA).

CUL 114 FOOD & BEVERAGE OPERATIONS.....3-3-0
This course will introduce students to proper operating procedures for the front of the house and as it relates to other areas of a hospitality establishment. The course stresses the importance of front of the house experiences and as it relates to the overall success of the operation. During the course, students will learn about customer service, front of the house operations, career opportunities, table service styles, various beverage categories, service, and applicable laws.

CUL 108 FOODSERVICE FUNDAMENTALS.....3-3-0
Foodservice Fundamentals gives baking & pastry and culinary arts students an introduction to the foodservice industry and how it aligns with the larger hospitality industry. There is a strong emphasis on present-day practices, ethics, diversity, careers, career planning, resume writing, interviewing skills, and the creation of a portfolio. Students will also learn about professional foodservice organizations, learn communication, public speaking skills, and interaction skills.

CUL 150 MENU & COST CONTROL.....3-3-0
This course allows students the opportunity to evaluate sales menus and apply the skills relevant to the development and design of the sales menu in a food service operation. Additionally, students will learn the importance and use of the proper tools and documents needed to control food and beverage costs and analyze sales. This course introduces labor and overhead expenses, as well as an introduction to the income statement as a method of evaluating a business's success.
Prerequisites:
BPA120 - Introduction to Baking & Pastry or CUL120 - Introduction to Culinary Techniques
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
MAT 080 - Fundamentals of Mathematics
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

CUL 122 ADVANCED CULINARY TECHNIQUES.....3-1-4
This course provides laboratory experience for enhancing student skills in the fundamental concepts, advanced techniques of professional cookery. Emphasis is placed on practical experiences including recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Students are also introduced to the fabrication of meat, poultry and fish and common cuts associated with menu creation. Upon completion, students should be able to demonstrate competency of the professional cooking skills used in the foodservice industry. **This course is subject to a course fee.**
Prerequisites:
CUL 120 - Introduction to Culinary Techniques

CUL 151 PURCHASING & COST CONTROL.....3-3-0
This course is designed to give the students a background in basic techniques of purchasing and costing in the hospitality industry. This course stresses the importance of purchasing and costing as it relates to the hospitality industry. The course details the flow of goods, including inventory, forecasting, purchase specifications, product yield, purchasing, receiving, storing, inventory control, and issuing of food and beverage. Students will also practice bid sheets, food and sales cost, profit and loss statements and food and labor cost analysis. **This course is subject to a course fee.**

CUL 125 AMERICAN REGIONAL CUISINE.....3-1-4
This course presents the principles of traditional dishes of various cuisines and related terminology throughout the United States. This class builds upon the basics and utilizes advanced techniques to proceed into the culinary traditions and practices of the different regions in our country. Ingredients, flavor profiles, preparations and techniques of each region will be analyzed. Students will have the opportunity to prepare, taste and present dishes from each regional cuisine. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 260 - Global Cuisines with a minimum grade of C

CUL 160 BAKING & PASTRY FOR CULINARIANS..... 3-1-4
This course covers the fundamentals of baking and pastry arts, which include terminology, technology, equipment, measurement, and formula conversions. Different classical mixing methods along with standard recipe adherence principles, bakery sanitation, and product storage is discussed. Topics covered include the identification, production, and evaluation of quick breads, cookies, pies, pate a choux, yeast bread, cakes, and plated desserts. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 250 - European Cuisines with a minimum grade of C

CUL 170 MANAGEMENT & SUPERVISION..... 3-3-0
This course introduces the importance of management within the hospitality industry. Students will learn leadership styles, communication skills and proper management documents. Current management issues, stress management, professional ethics and labor laws are discussed to prepare students to become successful leaders within the hospitality industry. **This course is subject to a course fee.**

CUL 198 CULINARY PRACTICUM I..... 1-0-2
This course is the introductory component of the Culinary Arts Institute practicum experience. Students are required to select a college approved practicum site, perform 30 hours of practical learning and provide documentation upon completion to the Culinary Resource Specialist or assigned Faculty. Students are required to maintain the standards of the Culinary Arts Institute while representing the program at their host site. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**

CUL 220 MENU PLANNING.....3-3-0
This course will introduce students into the art of menu writing. Topics include menu layout, design, development, descriptions, government regulations, pricing, sales mix, and management. Students will analyze different types of menus based on concept, cost, design, and efficiency. **This course is subject to a course fee.**
Prerequisites:
CUL 151 - Purchasing & Cost Control

CUL 250 EUROPEAN CUISINES..... 3-1-4
This course presents the principles of traditional dishes of cuisines throughout the continent of Europe. Ingredients, flavor profiles, preparations, and techniques of each cuisine will be analyzed. Students will have the opportunity to prepare, taste, and analyze dishes from each cuisine. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 120 - Introduction to Culinary Techniques with a minimum grade of C

CUL 120 INTRODUCTION TO CULINARY TECHNIQUES..... 3-1-4
This course presents the basic principles of food preparation for the food service and hospitality industry. This class is a foundation course and topics covered include mis en place, knife skills, stocks, sauces, soups, vegetables, legumes, proteins and cooking techniques. In addition, students will practice reading and writing recipe cards, food and kitchen safety and sanitation. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**

CUL 260 GLOBAL CUISINES..... 3-1-4
This course presents the principles of traditional dishes of cuisines from around the globe. Ingredients, flavor profiles, preparations, and techniques of each cuisine will be analyzed. Students will have the opportunity to prepare, taste, and analyze dishes from each cuisine. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 120 - Introduction to Culinary Techniques with a minimum grade of C

CUL 282 RESTAURANT OPERATIONS.....3-1-4
This course presents the principles of restaurant operations for culinary arts students. This hands-on course will involve production for the public for the college's restaurant entities enforcing practical skills with public evaluation. Students will be executing full menu production. Also, the etiquette of an open kitchen live learning lab will allow students to understand the mechanics of full production restaurant operations, from menu development to final turnout. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform and front of the house uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 125 - American Regional Cuisine with a minimum grade of C
CUL 105 - Safety & Sanitation with a minimum grade of C
Students must have a current ServSafe Managers Certification and/or permission from the Program Coordinator

CUL 298 CULINARY INTERNSHIP..... 3-0-16
The Culinary Internship is an applied work experience designed to solidify learned fundamental skills and to gain a broader professional understanding of the business of the food industry. Students enrolled in the semester-long course will integrate knowledge and skills learned in the classroom within a professional setting. Students are required to complete 240 hours of work experience. Students on internship will receive feedback from their supervisor and submit assignments to record and reflect on their work experience. **This course is subject to a course fee.**

CUL 101 CULINARY FOUNDATIONS.....3-3-0
This course introduces students to the Food Service Industry. Students will learn about common terms, kitchen essentials, techniques, basic mechanics, and time management in the modern kitchen. Students will investigate kitchen ingredients such as herbs, spices, dairy products, grains, fruit, vegetables, and fats as well as our role as culinarians and proper nutrition. Students will also practice reading and writing standardized recipes utilizing kitchen math as well as recipe scaling and costing. Students will apply previous knowledge of sanitary practices and compliance with laws and ordinances of the Department of Health.

CUL 221 GARDE MANGER AND BUFFET DESIGN.....3-1-4
This course presents the basic principles of Garde Manger for hotel, restaurant and industrial food catering establishments. Topics covered include charcuterie and preservation techniques found in various cultures, hors d'oeuvre and canapés, decorative centerpieces, cheese identification, additional cold food items and discussion and research of modern buffet displays. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 120 - Introduction to Culinary Techniques with a minimum grade of C

CUL 270 CULINARY ENTREPRENEURSHIP..... 3-3-0
This course introduces students to concept development and business plan writing. Students will complete a business plan and market analysis based on real life scenarios. Topics include forms of business ownership, concept development, menu analysis, inventory, staffing, marketing and financials. There will be research of food industry success and failure examples of restaurants and concepts. Profit and loss statements will also be taught and researched. This class is an accumulation of business foundations to succeed within the hospitality & food service industries. **This course is subject to a course fee.**
Prerequisites:
CUL 220 - Menu Planning

CUL 298A CULINARY PRACTICUM II.....3-0-6
This course is the second component of the Hospitality Institute practicum experience. Students are required to select a college approved practicum site or remain at their previously designated site and perform 90 hours minimum of practical work experience and provide documentation upon completion to the assigned Faculty. Students are required to maintain the standards of the Hospitality Institute while representing the program at their host site. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 198 - Culinary Practicum I

CUL 298B CULINARY PRACTICUM III.....3-0-6
This course is the final component of the Hospitality Institute practicum experience. Students are required to select a college approved practicum site or remain at their previously designated site and perform 90 hours minimum of practical work experience and provide documentation upon completion to the assigned Faculty. Students are required to maintain the standards of the Hospitality Institute while representing the program at their host site. Sanitary practices and compliance with laws and ordinances of the Department of Health are enforced. Students are required to have a professional chef's uniform to participate in class according to departmental uniform policies. **This course is subject to a course fee.**
Prerequisites:
CUL 298A - Culinary Practicum II

CUL 117 INTRODUCTION TO FOOD SCIENCE.....4-3-3
Food Science integrates an interdisciplinary scientific approach to food and its components. Relationships between the chemical composition of food and sensory properties are delineated. In this course students evaluate the effects of processing, preparation, and storage on the quality, safety, and nutritive value of various food categories. Further, this course examines the application of technology to both improve and expand the food supply. Food science applies concepts from nutrition, health, biology, and chemistry to discern how the various ingredients in foods interact. Laboratory testing and food science techniques specific to the science of food are explored.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
MAT 080 - Fundamentals of Mathematics

CUL 272 FRONT OF THE HOUSE OPERATIONS.....3-1-4
This course presents the principles of the front of the house operations within a restaurant. This hands-on course will instruct students on the various positions of the Front of the House (including servers, hosts, bussers, bartenders, bar backs, and managers). In this live learning lab, students will learn the fundamentals of table set-ups, styles of service, position responsibilities handling of monies, point of sales (POS) systems, reservations, and how to serve customers in a restaurant. Students will operate the front of the house portion of Hospitality Institute's restaurant in conjunction with CUL282 Restaurant Operations class. **This course is subject to a course fee.**
Prerequisites:
CUL 105 - Safety & Sanitation

COUNSELING

COU 121 PSYCHOLOGY OF CAREER DEVELOPMENT..... 2-2-0
This course is designed to give students practical ideas and methods as well as theoretical concepts for developing career plans and making satisfying vocational decisions. Through a variety of classroom activities, students learn more about themselves, what career fields may help them find fulfillment, and how to enter and progress in these fields.

DANCE

DAN 110 DANCE APPRECIATION.....3-3-0
This course offers the basis for understanding and appreciating dance as an art form. It provides an overview of dance as artistic expression in 20th and 21st century America, with attention given to the artistic and cultural influences that have shaped American concert dance. Students will examine the work of major figures in American concert dance including Isadora Duncan, Doris Humphrey, Martha Graham, José Limón, Katherine Dunham, George Balanchine, Alvin Ailey, Merce Cunningham, Yvonne Rainer, Steve Paxton, and Bill T. Jones. In this course, students will view, discuss, and analyze significant choreographic works in class. The class will view a professional dance performance and write about their experiences.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

DAN 157 DANCE PERFORMANCE ENSEMBLE III..... 1-3-2
This course introduces students to the process of preparing for and presenting a dance concert. Each student will choreograph a solo and perform at least two dances for public performance. Students will be introduced to the basics of dance production including costume selection, concepts of lighting design, use of sets and props, publicity, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. **This course is subject to a course fee.**
Prerequisites:
DAN 156 - Dance Performance Ensemble with a minimum grade of C

DAN 225 BALLET IV..... 3-1-4
This course is a continuation of DAN 224. Students continue to increase their proficiency in classical ballet technique as they hone their movement skills, increase their physical capacity, and refine their skills of artistic expression through the continued study and practice of classical ballet at the intermediate level. **This course is subject to a course fee.**
Prerequisites:
DAN 224 Ballet III with a minimum grade of C

DAN 121 FUNDAMENTALS OF BALLET I..... 3-3-0
This course provides an introduction to the theory, practice, and aesthetic foundations of classical ballet. Students will learn the foundations of classical ballet technique emphasizing correct body placement. The class will include exercises at the barre, center work, simple turns, jumps, and traveling movements. The course will include an overview of ballet history.
Prerequisites:
ENG 010 - Basic Writing I or ESL 010 - Basic Writing I
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

DAN 132 FUNDAMENTALS OF JAZZ DANCE II.....3-3-0
This course is a continuation of DAN 131 Fundamentals of Jazz Dance I. Students consolidate and refine their skills as they continue the study and practice of jazz dance at the elementary level.
Prerequisites:
DAN 131 - Fundamentals of Jazz Dance I with a minimum grade of C

DAN 156 DANCE PERFORMANCE ENSEMBLE II..... 1-3-2
This course introduces students to the process of preparing for and presenting a dance concert. Each student will choreograph one group dance and perform at least two dances for public performance. Students will be introduced to the basics of dance production including costume selection, concepts of lighting design, use of sets and props, publicity, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. **This course is subject to a course fee.**
Prerequisites:
DAN 155 - Dance Performance Ensemble with a minimum grade of C

DAN 223 BALLET II.....3-1-4
This course is a continuation of DAN 123. Students refine their skills and advance their technique as they continue the study and practice of classical ballet at the intermediate level. **This course is subject to a course fee.**
Prerequisites:
DAN 123 - Ballet I with a minimum grade of C

DAN 224 BALLET III.....3-1-4
This course is a continuation of DAN 223. Students continue to refine their skills and increase their strength, flexibility, and stamina as they advance their technique through the continued study and practice of classical ballet at the intermediate level. **This course is subject to a course fee.**
Prerequisites:
DAN 223 - Ballet II with a minimum grade of C

DAN 102 FUNDAMENTALS OF MODERN DANCE I.....3-3-0
This course provides an introduction to the principles and practice of modern dance. Ongoing dance technique classes will incorporate aspects of modern and postmodern dance, dance improvisation, Bartenieff Fundamentals, Pilates mat work and stretching and relaxation techniques. Through these movement experiences, students will develop their technical dance skills; learn basic concepts of dance design, and further their understanding and cultivation of the body as an instrument of expression. The course will provide a basis for understanding the aesthetic principles of modern dance through movement experiences, critical viewing and analysis of masterworks of modern dance choreography, and class discussions.
Prerequisites:
ENG 010 - Basic Writing I or ESL 010 - Basic Writing I
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

DAN 122 FUNDAMENTALS OF BALLET II..... 3-3-0
This course is a continuation of DAN 121 Fundamentals Ballet I. Students consolidate and refine their skills as they continue the study and practice of classical ballet at the elementary level. The class will include exercises at the barre, center work, turns, jumps, and traveling movements.
Prerequisites:
DAN 121 - Fundamentals of Ballet I with a minimum grade of C

DAN 123 BALLET I.....3-1-4
This course is a continuation of DAN 122 and is designed to advance the student to the intermediate level of classical ballet technique. Students will continue to refine their skills as they increase their vocabulary of classical ballet steps. Exercises at the barre, center work, and traveling combinations will increase in complexity. The course includes basic anatomical information of particular importance to sound ballet technique. **This course is subject to a course fee.**

DAN 155 DANCE PERFORMANCE ENSEMBLE I..... 1-3-2
This course introduces students to the process of preparing for and presenting a dance concert. Each student will perform at least two dances for public performance. Students will be introduced to the basics of dance production including costume selection concepts of lighting design, use of sets and props, publicity, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. Previous dance experience is expected. **This course is subject to a course fee.**

DAN 204 MODERN DANCE II.....3-1-4
This course is a continuation of DAN 104. Students refine their skills and advance their technique as they continue the study and practice of modern dance at the intermediate level. The class will attend one or more live dance performances. **This course is subject to a course fee.**
Prerequisites:
DAN 104 - Modern Dance I with a minimum grade of C

DAN 131 FUNDAMENTALS OF JAZZ DANCE I.....3-3-0
This course provides an introduction to the practice, aesthetics, and historical foundations of jazz dance. Classes will include center warm-up exercises and floor stretches, simple turns, jumps, and traveling movements, and more complex center combinations. The course will include an overview of jazz dance history.
Prerequisites:
REA 010 - Elements of Reading or REA 017 - Vocabulary and Reading Comprehension Development II
ENG 010 - Basic Writing I or ESL 010 - Basic Writing I

DAN 103 FUNDAMENTALS OF MODERN DANCE II.....3-3-0
This course is a continuation of DAN 102 Fundamentals of Modern Dance I. Students consolidate and refine their skills as they continue the study and practice of modern dance at the elementary level. The class will attend one or more live dance performances.
Prerequisites:
DAN 102 - Fundamentals of Modern Dance I with a minimum grade of C

DAN 104 MODERN DANCE I.....3-1-4
This course is a continuation of DAN 103 and is designed to advance the student to the intermediate level of modern dance technique. Students will continue to refine their skills as they increase their movement vocabularies. Warm-up exercises, center and traveling combinations will increase in complexity. The course includes anatomical information of particular importance to sound modern dance technique. The class will attend one or more live dance performances. **This course is subject to a course fee.**

DAN 134 FUNDAMENTALS OF HIP HOP DANCE I.....3-3-0
This course provides an introduction to the theory, practice, aesthetics, and historical foundations of hip hop dance. Students will explore the roots of funk and hip hop dance in the social fabric of African, Caribbean, and Afro-Latin cultures while examining reinventions of ragtime, swing, and rock n' roll throughout the 20th century in America. Students will experience hip hop's manifestations across media by viewing dance films, listening to music, and reading essays and books. Historical and philosophical perspectives will be integrated into movement activities. Through movement, students will be introduced to the basic Laban principles of time, space, energy and the kinesphere. Students will explore personal, social, and cultural dynamics of race and the diversity of hip hop culture in the United States as well as political, social, and economic issues in hip hop abroad.
Prerequisites:
ENG 010 - Basic Writing I or ESL 010 - Basic Writing I
REA 010 - Elements of Reading or REA 017 - Vocabulary and Reading Comprehension Development II

DAN 135 FUNDAMENTALS OF HIP HOP DANCE II.....3-3-0
This course is a continuation of DAN 134 Fundamentals of Hip Hop Dance I. Students consolidate and refine their skills as they continue the study and practice of hip hop dance at the elementary level.
Prerequisites:
DAN 134 - Fundamentals of Hip Hop Dance I with a minimum grade of C

DAN 158 DANCE PERFORMANCE ENSEMBLE IV.....1-3-2
This course introduces students to the process of preparing for and presenting a dance concert. Each student will choreograph at least one dance and perform at least two dances for public performance. Students will be introduced to the basics of dance production including costume selection, concepts of lighting design, use of sets and props, publicity, and stage makeup for dance. Students will be required to participate in rehearsals and performances outside of class time. Previous dance experience is expected. **This course is subject to a course fee.**

DAN 205 MODERN DANCE III.....3-1-4
This course is a continuation of DAN 204. Students continue to refine their skills and increase their strength, flexibility, and stamina as they advance their technique through the continued study and practice of modern dance at the intermediate level. The class will attend one or more live dance performances. **This course is subject to a course fee.**
Prerequisites:
DAN 204 - Modern Dance II with a minimum grade of C

DAN 206 MODERN DANCE IV.....3-1-4
This course is a continuation of DAN 205. Students continue to refine their skills and increase their strength, flexibility, and stamina as they advance their technique through the continued study and practice of modern dance at the intermediate level. The class will attend one or more live dance performances. **This course is subject to a course fee.**
Prerequisites:
DAN 205 - Modern Dance III with a minimum grade of C

DAN 151 DANCE IMPROVISATION.....3-1-2
This course is designed to help students discover and develop their creative movement potential. Through guided movement exercises, the class will explore the basic movement elements of space, time, weight, and flow and the spontaneous use of movement through structured improvisations derived from movement concepts, games, imagery, media sources, chance procedures, and various improvisational practices.
Prerequisites:
ENG 010A - Basic Writing I or ESL 010 - Basic Writing I
Students must have successfully completed or tested out of REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

DAN 251 DANCE COMPOSITION.....3-3-0
This course provides an immersion into the creative act of choreography. Through short in-class assignments and extensive work outside of class, students will investigate both form and content in choreography. Students will create and perform solo and group studies based on choreographic problems.

DENTAL HYGIENE

DHG 100 THEORY AND PRACTICE OF DENTAL HYGIENE I.....4-3-6
A course designed to introduce the dental hygiene student to the profession of dental hygiene, theories and rationales for basic dental hygiene care procedures and prevention of disease, ethical principles, infection control, risk factors for oral disease and treatment planning. Practical application of fundamental concepts and skills are applied in the clinical setting on student partners with emphasis on workplace safety, hazards management, ergonomics, assessment and instrumentation. **This course is subject to a course fee.**
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C
Official Final High School Transcript or GED Transcript
High School Chemistry or CHE 121 - General Chemistry - Inorganic (or higher) within 5 years with a minimum grade of C
BIO 131 - Human Anatomy & Physiology I, BIO 132 - Human Anatomy & Physiology II, and BIO 140 - Microbiology and Immunology within 5 years with a minimum grade of B in one course, with a minimum grade of C in the 2nd and 3rd courses. Must be completed within two attempts.
ENG 101 - English Composition I with a minimum grade of C
ESW 206 - Basic Nutrition with a minimum grade of C
TEAS® Comprehensive Score of 50 or higher and TEAS® Reading Comprehensive Score of 75 (or higher) withing 3 years. Must be completed within 2 attempts. See the TEAS® Information Packet. Please note there is a fee for the TEAS®.
Corequisites:
DHG 111 - Dental Anatomy. May be taken prior or during course.
DHG 113 - Dental Histology and Embryology. May be taken prior or during course.
DHG 155 - Dental Radiology. May be taken prior or during course.

DHG 261 PERIODONTICS II..... 2-2-0
The major emphasis of this course is on treatment planning (intraoral photographs, periodontal charting, occlusal analysis, patient education) and therapy (pain control, chemotherapeutic agents, site specific drug therapy, host modulation drug therapy, periodontal surgery, periodontal packs, sutures) of the periodontal patient.
Prerequisites:
DHG 224 - Materials in Dentistry
DHG 225 - Oral Pharmacology
DHG 226 - Dental Pain Control
Corequisites:
DHG 220 - Theory and Practice of Dental Hygiene III. May be taken prior or during course.

DHG 113 DENTAL HISTOLOGY & EMBRYOLOGY.....
This course is designed to familiarize the dental hygiene student with basic histological tissues. Development and microscopic structure of the cells, tissues, and organs of the oral cavity are studied. Special emphasis is given to the development of the face, the oral cavity and the tooth with its surrounding tissues.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C
Official Final High School Transcript or GED Transcript
High School Chemistry or CHE 121 - General Chemistry - Inorganic (or higher) within 5 years with a minimum grade of C
BIO 131 - Human Anatomy & Physiology I, BIO 132 - Human Anatomy & Physiology II, and BIO 140 - Microbiology and Immunology within 5 years with a minimum grade of B in one course, with a minimum grade of C in the 2nd and 3rd courses. Must be completed within two attempts.
ENG 101 - English Composition I with a minimum grade of C
ESW 206 - Basic Nutrition with a minimum grade of C
TEAS® Comprehensive Score of 50 or higher and TEAS® Reading Comprehensive Score of 75 (or higher) withing 3 years. Must be completed within 2 attempts. See the TEAS® Information Packet. Please note there is a fee for the TEAS®.
Corequisites:
DHG 100 - Theory and Practice of Dental Hygiene I. May be taken prior or during course.
DHG 111 - Dental Anatomy. May be taken prior or during course.
DHG 155 - Dental Radiology. May be taken prior or during course.

DHG 155 DENTAL RADIOLOGY.....2-1-3
This course enables the dental hygiene student to acquire the knowledge, skills and attitudes necessary to produce dental radiographs of diagnostic quality with minimum patient exposure to radiation. Topics of study include the principles of radiation physics, radiation biology, radiation safety, radiographic technique, patient management, quality assurance, patient selection criteria, mounting and evaluation, recognition of anatomic landmarks and common radiographic findings and alternate imaging modalities. A laboratory component provides the student with the opportunity to learn and practice radiology skills on simulation manikins in preparation for operating competently in the clinic environment. **This course is subject to a course fee.**
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C
Official Final High School Transcript or GED Transcript
High School Chemistry or CHE 121 - General Chemistry - Inorganic (or higher) within 5 years with a minimum grade of C
BIO 131 - Human Anatomy & Physiology I, BIO 132 - Human Anatomy & Physiology II, and BIO 140 - Microbiology and Immunology within 5 years with a minimum grade of B in one course, with a minimum grade of C in the 2nd and 3rd courses. Must be completed within two attempts.
ENG 101 - English Composition I with a minimum grade of C
ESW 206 - Basic Nutrition with a minimum grade of C
TEAS® Comprehensive Score of 50 or higher and TEAS® Reading Comprehensive Score of 75 (or higher) withing 3 years. Must be completed within 2 attempts. See the TEAS® Information Packet. Please note there is a fee for the TEAS®.
Corequisites:
DHG 100 - Theory and Practice of Dental Hygiene I. May be taken prior or during course.
DHG 111 - Dental Anatomy. May be taken prior or during course.
DHG 113 - Dental Histology and Embryology. May be taken prior or during course.

DHG 161 PERIODONTICS I..... 2-2-0
This course covers the study of the microscopic and clinical aspects of the normal and diseased periodontal tissues. Utilizing the knowledge of normal tissues, the student will learn to recognize the changes that occur in periodontal disease at the clinical and microscopic level. Students will apply this background knowledge to classify periodontal disease using the American Academy of Periodontology Classification System.
Prerequisites:
DHG 100 - Theory and Practice of Dental Hygiene I
DHG 111 - Dental Anatomy
DHG 155 - Dental Radiology
DHG 113 - Dental Histology and Embryology
Corequisites:
DHG 158 - Theory and Practice of Dental Hygiene II. May be taken prior or during course.
DHG 157 - Oral Pathology. May be taken prior or during course.

DHG 220 THEORY AND PRACTICE OF DENTAL HYGIENE III.....6-2-20
This course introduces the student to the general pathology and physiology of relevant diseases and conditions that may present in the clinical setting. Discussion includes the methods of treatment and the oral health impact of the disease or treatment. The recognition and management of medical emergencies will also be examined. Special emphasis will be given to diseases and conditions of importance in clinical dentistry. Further, this course is designed to broaden the students' abilities to integrate basic, dental and psychosocial sciences in evaluating, planning, and implementing a comprehensive dental hygiene treatment plan for varied patient populations. This course is subject to a course fee. **This course is subject to a course fee.**
Prerequisites:
DHG 224 - Materials in Dentistry
DHG 225 - Oral Pharmacology
DHG 226 - Dental Pain Control
Corequisites:
DHG 261 - Periodontics II. May be taken prior or during course.

DHG 258 THEORY AND PRACTICE OF DENTAL HYGIENE IV.....6-2-20
This course is designed to prepare students to make the transition into dental hygiene practice. Emphasis is placed on new technologies in oral health care, genetic risk factors for periodontal diseases, periodontal disease as a potential risk factor for systemic diseases, ethical and legal considerations in clinical practice, career options, and current issues in dental hygiene. **This course is subject to a course fee.**
Prerequisites:
DHG 220 - Theory and Practice of Dental Hygiene III
DHG 261 - Periodontics II
Corequisites:
DHG 253 - Community Dentistry. May be taken prior or during course.

DHG 158 THEORY AND PRACTICE OF DENTAL HYGIENE II.....5-2-12
This course is designed to provide the dental hygiene student with the opportunity to expand knowledge and experience in planning and providing oral health services. Topics include nutritional counseling, instrumentation, prevention education and communication, desensitization, tobacco cessation, ethics as well as the hygienist's role in dental specialties. Focus is placed on the student's development of skills in communication and treatment of patients through the lifespan as well as functioning in clinic in an effective and efficient manner. Students provide educational and clinical services with an emphasis on comprehensive care for child and adult clients at the Central Campus dental hygiene clinic. **This course is subject to a course fee.**
Prerequisites:
DHG 100 - Theory and Practice of Dental Hygiene I
DHG 111 - Dental Anatomy
DHG 155 - Dental Radiology
DHG 113 - Dental Histology and Embryology
Corequisites:
DHG 161 - Periodontics I. May be taken prior or during course.
DHG 157 - Oral Pathology. May be taken prior or during course.

DHG 224 MATERIALS IN DENTISTRY..... 2-1-3
This course is designed to provide students with a survey of dental materials and procedures, their reasons for use, proper technique and dental application. The scope of study includes gypsum products, impression materials, dental cements, amalgam, synthetic resins, nightguard vital bleaching, athletic mouthguards, prosthetics, finishing and polishing of restorations, pit and fissure sealants, digital photography and advanced instrumentation. Laboratory sessions provide students with hands-on experience with selected dental material procedures and instrumentation. **This course is subject to a course fee.**
Prerequisites:
DHG 158 - Theory and Practice of Dental Hygiene II
DHG 161 - Periodontics I
DHG 157 - Oral Pathology
Corequisites:
DHG 226 - Dental Pain Control. May be taken prior or during course.
DHG 225 - Oral Pharmacology. May be taken prior or during course.

DHG 225 ORAL PHARMACOLOGY..... 2-2-0
The course introduces the student to the general principles of applied pharmacology, including: drug action, interaction, adverse reactions, handling, and prescription writing. Drugs for management of medical diseases and conditions are examined as they affect the clinical practice of dental hygiene. Drugs utilized in dentistry are examined as to how they may alter dental treatment. Stressed is the pharmacology related to medical and dental emergencies.
Prerequisites:
DHG 158 - Theory and Practice of Dental Hygiene II
DHG 161 - Periodontics I
DHG 157 - Oral Pathology
Corequisites:
DHG 224 - Materials in Dentistry. May be taken prior or during course.
DHG 226 - Dental Pain Control. May be taken prior or during course.

DHG 226 DENTAL PAIN CONTROL..... 2-1-2
The course is a study of the basic and current concepts in the administration of local dental anesthetics. Topics examined include the mechanism of action, local and systemic effects, tissue diffusion and toxicity of anesthetic agents used in dentistry. Patient assessment including medical considerations, apprehension and pain threshold will be evaluated for determining the indications and contraindications of dental pain control. Selection of appropriate anesthetic agents and proper administration techniques will be emphasized. The pharmacology, principles of nitrous oxide-oxygen analgesia administration, patient considerations and legal issues will be discussed. Anatomical considerations for the administration of local anesthesia are reviewed. **This course is subject to a course fee.**
Prerequisites:
DHG 158 - Theory and Practice of Dental Hygiene II
DHG 161 - Periodontics I
DHG 157 - Oral Pathology
Corequisites:
DHG 224 - Materials in Dentistry. May be taken prior or during course.
DHG 225 - Oral Pharmacology. May be taken prior or during course.

DHG 111 DENTAL ANATOMY..... 2-2-0
This course is designed to familiarize the dental hygiene student with all phases of dental anatomy. Topics of study include gross anatomy, nomenclature, eruption sequence, morphology and physiology of the oral structures with emphasis on the primary and permanent dentitions, occlusion, an overview of the temporomandibular joint, and anomalies of the oral structures. The coronal structure and root morphology for individual teeth will be addressed and related to direct patient care procedures.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C
Official Final High School Transcript or GED Transcript
High School Chemistry or CHE 121 - General Chemistry - Inorganic (or higher) within 5 years with a minimum grade of C
BIO 131 - Human Anatomy & Physiology I, BIO 132 - Human Anatomy & Physiology II, and BIO 140 - Microbiology and Immunology within 5 years with a minimum grade of B in one course, with a minimum grade of C in the 2nd and 3rd courses. Must be completed within two attempts.
ENG 101 - English Composition I with a minimum grade of C
ESW 206 - Basic Nutrition with a minimum grade of C
TEAS® Comprehensive Score of 50 or higher and TEAS® Reading Comprehensive Score of 75 (or higher) withing 3 years. Must be completed within 2 attempts. See the TEAS® Information Packet. Please note there is a fee for the TEAS®.
Corequisites:
DHG 100 - Theory and Practice of Dental Hygiene I. May be taken prior or during course.
DHG 113 - Dental Histology and Embryology. May be taken prior or during course.
DHG 155 - Dental Radiology. May be taken prior or during course.

DHG 157 ORAL PATHOLOGY.....
This course familiarizes the students with the fundamentals of microscopic and gross pathology. Building on the concepts of general histology and embryology, the nature of disease is addressed with respect to etiology, mechanism of disease formation, inflammation, and the body's response to injury. The clinical presentation of basic disease processes that affect the oral cavity and the clinical and histological recognition of oral neoplasia are emphasized.
Prerequisites:
DHG 100 - Theory and Practice of Dental Hygiene I
DHG 111 - Dental Anatomy
DHG 113 - Dental Histology and Embryology
DHG 155 - Dental Radiology
Corequisites:
DHG 158 - Theory and Practice of Dental Hygiene III. May be taken prior or during course.
DHG 161 - Periodontics I. May be taken prior or during course.

DHG 253 COMMUNITY DENTISTRY.....2-2-0
This course is designed to introduce the student dental hygienist to the knowledge and skills necessary to promote oral health in the community. Topics include an overview of public health and its relationship to community dental health, epidemiology and prevention of oral disease, factors affecting the delivery, financing and utilization of dental services, planning community dental programs, and basic research and statistical concepts. Students will apply course content to assess, design, implement and evaluate a community dental health program.
Prerequisites:
DHG 220 - Theory and Practice of Dental Hygiene III
DHG 261 - Periodontics II
Corequisites:
DHG 258 - Theory and Practice of Dental Hygiene IV. May be taken prior or during course.

EDUCATION

EDU 213 WORKING WITH CHILDREN WITH SPECIAL NEEDS..... 3-3-0
Working with Children with Special Needs is an introductory course that provides students with an overview of the historical perspective as well as current issues and practices related to special education. Students will learn about laws that affect students with special needs and the classification of exceptionalities identified by the laws. Students will acquire knowledge of definitions, terminology, and assessment tools that relate to special education. The focus will be on the types of accommodations and adaptation that a teacher should make to support students with special needs to ensure their success. Each student will be assigned to a public school special education classroom for the purpose of gaining a first-hand knowledge of the current state of the art of special education. Students will engage in observation hours during this course.
Corequisites:
EDU 100 - Introduction to Education. May be taken prior or during course.

EDU 225 GUIDING CHILDREN'S READING.....3-3-0
In Guiding Children's Reading (EDU 225), students will learn how language arts skills (reading, writing, speaking, and listening) develop in young children from birth to fourth grade. Students will develop an understanding of their roles as teachers in supporting language arts development. All aspects of skill development, comprehension, fluency, new word acquisition, assessment and spelling are addressed.
Prerequisites:
EDU 100 - Introduction to Education

EDU 227 TEACHING MATHEMATICS TO YOUNG CHILDREN..... 3-3-0
Teaching Mathematics to Young Children (EDU 227) presents teaching techniques and materials used with students, from birth through fourth grade, in contemporary mathematics programs. Students will learn ways to focus instruction on helping children understand and utilize mathematics effectively, think critically, and enforce mathematical standards throughout lessons/ activities. The mathematical content of this course is presented within the context of teaching young children.

EDU 228 LITERATURE IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION..... 3-3-0
Literature in Early Childhood and Elementary Education (EDU 228) includes a comprehensive examination of children's literature, including a variety of genres, authors, and illustrators. Students will examine authors' literary styles and techniques and learn how to include children's literature in every content area of the curriculum. In addition, students will become familiar with literary elements and authors' uses of them in order to achieve a specific purpose. Students will be exposed to the various art mediums used by illustrators of children's literature. They will develop skills in the use of storytelling and dramatization. Students will learn how to assess the quality, appropriateness and equality of children's literature for various ages and create activities/lessons to connect to children's literature.
Prerequisites:
EDU 100 - Introduction to Education

EDU 121 TEACHING WITH TECHNOLOGY IN EARLY CHILDHOOD 3-3-0
This course focuses on technology integration for PreK-4th grade classrooms. Students will explore, utilize, evaluate, and integrate technology into their classrooms and curriculum. Students will be involved in many aspects of this integration, including lesson plan writing and unit designing. Students will develop the skills for enriching their classrooms with various types of technology.

EDU 226 ART FOR YOUNG CHILDREN..... 3-3-0
Art for Young Children focuses on the importance of artistic experiences in the early childhood classroom. The course is grounded in a comprehensive approach to art education instruction based on the four core disciplines of art making, art criticism, art history, and aesthetics. The concept of creativity is thoroughly examined and applied to projects made by the students. Students will recognize and identify the artistic elements that will help them communicate with young children.

EDU 245 CONNECTING FAMILIES, SCHOOLS AND COMMUNITIES.....3-3-0
Connecting Families, Schools, and Communities explores the concept of family, beginning with an understanding of their own families. Students will also explore diverse family structures, communication styles, parenting styles, family roles, and community engagement. Students will learn how to create meaningful relationships with families in order to enhance learning opportunities for children. In addition, students will investigate community organizations that support families and schools in order to develop community connections and be able to provide information to families. Finally, students will investigate and simulate family/teacher conferences in order to prepare them for that aspect of family/teacher communication.
Prerequisites:
ENG 010A - Basic Writing or ESL 010 - ESL Basic Writing I
REA*010 - Elements of Reading or REA*014 - Vocabulary and Reading Comprehension Development I

EDU 233 EARLY CHILDHOOD CURRICULUM..... 3-3-0
Early Childhood Curriculum (EDU 233) is a comprehensive course that addresses all aspects of teaching to young children. Students will explore approaches for educating students, ages infant through age 8, with focus on infant/toddler, preschool, pre-kindergarten, and kindergarten students. Throughout the course, students will be engaged in lesson planning for individual, small, and large group activities, as well as thematic and student lead units. Students will be exposed to various approaches to curriculum with an emphasis on curiosity and play. Students will be expected to create and implement appropriate curricular strategies in an early childhood program. This course must be taken concurrently with EDU 250 (Student Teaching).
Corequisites:
EDU 250 - Student Teaching. May be taken prior or during course.

EDU 120 TEACHING WITH TECHNOLOGY IN MIDDLE YEARS AND SECONDARY EDUCATION..... 3-3-0
This course will give students the opportunities to explore, utilize, evaluate, and integrate technology into their classrooms and curriculum. Students will be involved in many aspects of this integration, including lesson plan writing and unit designing. Students will develop the skills for enriching their classrooms with various types of technology. This course focuses on technology integration for grades 5-12 classrooms.

EDU 240 TEACHING ENGLISH LANGUAGE LEARNERS.....3-3-0
Teaching English Language Learners enables students to better meet the challenge of educating English Language Learners in the inclusive classroom. This course will emphasize differentiating instruction for English Language Learners, strategies and materials needed to educate English Language Learners, second language acquisition, cultural sensitivity, challenges for English Language Learners in content area classes, and Pennsylvania Language Proficiency Standards for English Learners. This course also addresses PA teaching certification guidelines, as specified in Chapter 49-2.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

EDU 100 INTRODUCTION TO EDUCATION.....3-3-0
Introduction to Education gives prospective teachers a proper introduction to the field of education. There is a strong emphasis on present-day practices, issues, and theories while also exploring ethics and educational history. While in class, students will participate in various instructional strategies both individually and in group settings. In addition, students will gain educational perspective while engaging in observations in an early childhood, elementary, or secondary school setting.

EDU 210 TEACHING YOUNG CHILDREN: AN INTRODUCTION TO EARLY CHILDHOOD EDUCATION..... 3-3-0
Teaching Young Children: An Introduction to Early Childhood Education is an introduction to the field of early childhood education. It provides a broad overview of the history, philosophy and theories of development as they relate to current best teaching practices. Students will examine the teacher's role in creating responsive, multicultural, and inclusive environments for young children, as well as the importance of play in the learning process. The development of observation skills, combined with practical experience, will aid the student in documentation of young children's thinking and behavior during the Child Study. Health and safety in the early childhood environment, basic classroom management strategies, and communication skills will also be discussed. Throughout the course, students' discovery of who they are in the lives of children will assist in the process of becoming early childhood professionals.

EDU 250 STUDENT TEACHING.....6-15-0
Student Teaching (EDU 250) provides significant field experience for students in the Education in the Early Years Program: Birth through Fourth Grade program. It acts as a capstone course for this program. Students spend 15 hours per week observing, planning and implementing their lesson plans in an early childhood classroom, birth through private kindergarten, under the daily supervision of an experienced teacher. Students also construct and complete a full professional portfolio. All requirements and guidelines, as stated in the Student Teaching Handbook, must be adhered to in order to complete this course. A faculty member from the College oversees the entire placement, including arranging for the placement, orienting the on-site teacher and director, observing the student teacher on a regular basis, and providing feedback to the student teacher based on the observations. Transportation to the site is the responsibility of the student. This course is taken during the final semester of the program in conjunction with EDU 233, Early Childhood Curriculum. Students need permission of an Education Coordinator or an advisor before registering for student teaching.
Prerequisites:
EDU 100 - Introduction to Education and all other required courses in the Education in the Early Years Program: Birth through Fourth Grade
EDU 213 - Working with Children with Special Needs and all other required courses in the Education in the Early Years Program: Birth through Fourth Grade
EDU 225 - Guiding Children's Reading Development and all other required courses in the Education in the Early Years Program: Birth through Fourth Grade
EDU 240 - Teaching English Language Learners and all other required courses in the Education in the Early Years Program: Birth through Fourth Grade
EDU 245 - Connecting Families, Schools and Communities, and all other required courses in the Education in the Early Years Program: Birth through Fourth Grade
EDU 210 - Teaching Young Children: An Introduction to Early Childhood Education, and all other required courses in the Education in the Early Years Program: Birth through Fourth Grade
Corequisites:
EDU 233- Early Childhood Curriculum and Administration. May be taken prior or during course.

ENGINEERING SCIENCE

EGR 203 ENGINEERING STATICS.....3-2-2
This course describes the mechanical behavior of materials and systems in equilibrium using Newton's laws of motion. Students will learn the principles of force and moment equilibrium, construction and analysis of free-body diagrams, understanding distributed forces, friction, and structural response. **This course is subject to a course fee.**
Prerequisites:
EGR 111 - Engineering Computations
EGR 115 - Engineering Graphics
MAT 190 - Calculus and Analytic Geometry I
PHY 151 - Principles of Physics I

EGR 102 INTRODUCTION TO ENGINEERING.....3-2-2
This course provides solid foundation of skills to solve engineering problems. Students demonstrate problem solving techniques with spreadsheets, dimensions and units; use modeling techniques and interpret validity of experimental results. Students design projects on multi-discipline teams. The course introduces professional and societal issues appropriate to engineering. Various forms of technical communication are emphasized.
Prerequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

EGR 214 LINEAR ELECTRICAL SYSTEMS II.....4-3-3
This course introduces the concepts of linear systems theory as applied to electrical networks, AC steady state analysis, frequency response, two-port models, Fourier series, and Laplace transforms. **This course is subject to a course fee.**
Prerequisites:
EGR 211 - Linear Electrical Systems I
MAT 201 - Calculus and Analytic Geometry II
PHY 152 - Principles of Physics II

EGR 213 MECHANICS OF MATERIALS.....3-2-2
This course covers the deformation of beams and shafts using energy methods and structural analysis, the analysis of stress and strain, stress-strain relations, shear and moment diagrams, stress and strain transformations, failure criteria and elementary plasticity. **This course is subject to a course fee.**
Prerequisites:
EGR 203 - Engineering Statics
MAT 201 - Calculus and Analytic Geometry II

EGR 115 ENGINEERING GRAPHICS..... 3-2-2
This course covers the basics of 3-Dimensional Solid Modeling design from conception through to final product production. Drawing, dimensioning, and tolerancing techniques are discussed as well as fitment and scaling. Solutions to 3D problems and spatial analysis through descriptive geometry are also analyzed. **This course is subject to a course fee.**
Prerequisites:
MAT 100 - Intermediate Algebra or MAT 100B - Intermediate Algebra & Review

EGR 211 LINEAR ELECTRICAL SYSTEMS I.....4-3-3
This course covers the fundamental laws and procedures of electric circuit analysis including Kirchhoff's laws, superposition, and Thevenin's and Norton's theorems. Elementary transients, sinusoidal steady-state analysis, impedance, power transfer and operational amplifiers are covered. **This course is subject to a course fee.**
Prerequisites:
EGR 111 - Engineering Computations
MAT 190 - Calculus and Analytic Geometry I
Corequisites:
MAT 201 - Calculus and Analytic Geometry II. May be taken prior or during course.
PHY 152 - Principles of Physics II. May be taken prior or during course.

EGR 111 ENGINEERING COMPUTATIONS.....3-2-2
In engineering environments, it is critical to recognize when and how a computer can assist in the analysis of a problem. This course will introduce the key concepts of good programming practice and show how computer programming directly relates to solving engineering problems. Multiple programming environments are used, each one emphasizing the same core concepts, yet customized to support a specific category of engineering problem application. **This course is subject to a course fee.**
Prerequisites:
MAT 100 - Intermediate Algebra or MAT 100B - Intermediate Algebra & Review

EGR 204 ENGINEERING DYNAMICS.....3-2-2
This course is a vector approach to the study of the rectilinear and curvilinear motion of particles and rigid bodies as described by rectangular, polar, and path coordinates and the study of the forces that produce such motion as described through the application of Newton's second law of motion, work-energy relationships, and impulse and momentum principles, including rigid body rotation and relative motion. **This course is subject to a course fee.**
Prerequisites:
EGR 203 - Engineering Statics
Corequisites:
MAT 201 - Calculus and Analytic Geometry II. May be taken prior or during course.

EGR 210 DIGITAL SYSTEMS.....4-3-3
This course introduces the fundamentals of digital systems design. It is designed as a foundation course for those pursuing studies leading to a degree in electrical, electronics or computer engineering. **This course is subject to a course fee.**
Prerequisites:
EGR 111 - Engineering Computations

ENGLISH

ENG 010A BASIC WRITING.....0-6-0
ENG 010A uses writing and reading to focus on grammar, sentence structure, paragraph development, fundamental English usage, and intensive paragraph writing. The course is required of all students whose scores on the placement test indicate a need for intensive review of basic writing skills. ENG 010A may also be taken as a refresher course. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
Appropriate course level determined through holistic placement.

ENG 011 BASIC WRITING II..... 0-3-0
ENG 011 emphasizes sentence structure, paragraph development, fundamental English usage, and intensive paragraph writing. The course is required of all students whose scores on the placement test indicate a need for intensive review of basic writing skills. ENG 011 may also be taken as a refresher course. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
Appropriate course level determined through holistic placement.

ENG 238 LITERARY VISION OF FILM..... 3-3-0
This course focuses on film as a mode of literary expression and developing a baseline knowledge of the techniques and devices of literature, selected films are viewed and discussed as works of literature. Only films which were created as films - that is, not based on books or works of drama - are considered. This is not a "film" course, and techniques relating to film are not studied.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 101 ENGLISH COMPOSITION I..... 3-3-0
ENG 101 is based on the premise that critical thinking generates clear writing. In this course, the student learns to read critically, a skill that involves distinguishing central ideas from supporting material and identifying an author's purpose, assumptions, attitudes, and biases. Additionally, the student in ENG 101 learns a writing process that involves generating ideas, drafting, composing, revising, and editing. The student also learns to locate, use, and accurately reference various sources of information.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ENG 102 ENGLISH COMPOSITION II..... 3-3-0
ENG 102 focuses on writing the college-level research paper and develops each student's mastery of communication, information literacy, and analytic skills with emphasis placed on research and documentation methods. Students use writing, reading, listening, and observations skills to understand, organize, receive, and convey information. Using research gleaned from diverse sources, students employ logic, reasoning, and analysis to craft effective essays.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C, or equivalent

ENG 117 WRITING FOR BUSINESS AND INDUSTRY.....3-3-0
Writing for Business and Industry entails the study of the principles of general business communication. The course includes intensive study of the mechanics, form, style, and content of business writing and an introduction to research skills.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C

ENG 211 SURVEY OF AMERICAN LIT. 1.....3-3-0
This course is a chronological survey of American literature from the Colonial Period to the Civil War. Significant works of American writers are studied for their literary value and in their historical and philosophical contexts.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 222 LITERATURE OF THE WESTERN WORLD 2.....3-3-0
This course is a survey of major periods, trends, ideas, and genres in Western literature from the 17th century to the Modern Era. Representative writings and authors from the age of Milton to the present are studied.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 246 AFRICAN AMERICAN LITERATURE I..... 3-3-0
Readings in all genres of African American literature, and these reading will cover historical periods that include the pre-enslavement of Africans, the Colonial Era, the enslavement, and Reconstruction/Post Reconstruction. This covers the period from 1400s to the early 1910s
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 255 WOMEN IN LITERATURE.....3-3-0
This course will analyze the images of women in literary works by female and/or male authors. The class will analyze literature from diverse time periods and countries. The literature will be discussed as a product of its time period and culture with focus on the societal expectations of women and gender dynamics presented by the authors.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 265 INTRODUCTION TO CREATIVE WRITING..... 3-3-0
Introduction to Creative Writing entails the study of the craft of creative writing. Over the course of the semester, students will learn to identify and discuss the characteristics of literary creative writing, compose basic works of creative writing, employ effective editing and revision skills, and use a standardized vocabulary to justify aesthetic literary judgments. Class enrollment is limited to 20 students.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C

ENG 247 AFRICAN AMERICAN LITERATURE II..... 3-3-0
Readings in all genres of African American literature, and these reading will cover historical periods that include the Harlem Renaissance, Civil Rights/ Protest Era, The Black Aesthetic Movement/Black Arts Movements, and the New Black Aesthetic Movements/Contemporary Period. This covers the period from 1920s to the present.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 115 WRITING FOR TECHNICAL COMMUNICATION.....3-3-0
Writing for Technical Communication entails the application of writing and research skills taught in ENG 101. It teaches on-the-job writing with a concentration in special and practical forms of communication, including letters, emails, memos, summaries, proposals, instructions, and reports. In addition, the course adapts formal English to the style of the technical or specialized writer.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C

ENG 212 SURVEY OF AMERICAN LITERATURE II.....3-3-0
This is a chronological survey of American literature from 1865 to the present. Upon successful completion of this course, students will be able to write analytical essays on literary texts, explain the individual, social, economic, and global forces that have shaped American literature from 1865 to the present, define the characteristics of realism, modernism, and postmodernism in relation to American literature, present chronologically the movements and major writers of American literature from 1865 to the present, and use secondary sources to analyze literary texts from diverse cultural and social perspectives.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 228 LITERATURE IN EARLY CHILDHOOD AND ELEMENTARY EDUCATION..... 3-3-0
This is a required course for students who are in the Education in the Early Years: Birth through Fourth Grade Program. It includes a comprehensive examination of children's literature including a variety of genres, authors, and illustrators. Students will examine authors' literary styles and techniques and learn how to include children's literature in every content area of the curriculum. In addition, students will become familiar with literary elements and authors' uses of them to achieve a specific purpose. They will develop skills in the use of storytelling and dramatization. Students will learn how to assess the quality and appropriateness of children's literature for various ages. EDU 100 must be taken as a prerequisite for taking this course.
Prerequisites:
EDU 100 - Introduction to Education

ENG 285H SOPHOMORE LITERATURE STUDIES HONORS..... 3-3-0
This is a specialized sophomore level course typically dealing with a different subject each time the course is offered. Each course will present a body of literary materials which will serve as the basis for assisting the student in strengthening sensitivity to literature and developing the critical abilities needed for understanding, evaluating and appreciating literature. Consult the English Department for a detailed description of the course currently being offered. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading; forming judgments based on evidence, often from integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 101H ENGLISH COMPOSITION I HONORS..... 3-3-0
ENG 101 is based on the premise that critical thinking generates clear writing. In this course, the student learns to read critically, a skill that involves distinguishing central ideas from supporting material and identifying an author's purpose, assumptions, attitudes, and biases. Additionally, the student in ENG 101 learns a writing process that involves generating ideas, drafting, composing, revising, and editing. The student also learns to locate, use, and accurately reference various sources of information. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading; forming judgments based on evidence, often from integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

ENG 221 LITERATURE OF THE WESTERN WORLD 1.....3-3-0
This course is a survey of major periods, trends, ideas, and genres in Western literature from the beginning of Western tradition to the Renaissance. Representative writings and authors from the Old Testament to Shakespeare are studied.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 245 SCIENCE FICTION.....3-3-0
A survey of the works of distinguished science fiction writers from Jules Verne to the present. Novels and short stories by writers such as H.G. Wells, Isaac Asimov, Kurt Vonnegut, Robert Heinlein, Arthur Clarke and Ray Bradbury will be read and discussed. Discussions will be aimed at determining the specific characteristics of the genre and its relationship to fantasy and traditional fiction.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 250 THE GRAPHIC NOVEL.....3-3-0
This course presents a survey of the graphic novel both in the U.S. and globally from the late 1970s to now. By the end of the course, students will be able to write essays about literary texts in the graphic novel form, define and discuss the characteristics of sequential storytelling, and use secondary sources to analyze specific works from diverse social and cultural perspectives. Equally, they will be able to delineate both the graphic novel's chronological evolution and its various genres.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 285 SOPHOMORE LITERATURE STUDIES..... 3-3-0
This is a specialized sophomore level course typically dealing with a different subject each time the course is offered. Each course will present a body of literary materials which will serve as the basis for assisting the student in strengthening sensitivity to literature and developing the critical abilities needed for understanding, evaluating and appreciating literature. Consult the English Department for a detailed description of the course currently being offered.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 202 SURVEY OF ENGLISH LITERATURE 2.....3-3-0
This course is a chronological survey of English literature from the Romantic Period to the present. The emphasis is on major writers, whose works are studied for their literary value and in their historical and philosophical contexts.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 236 FICTION.....3-3-0
This course aims to cultivate an appreciation of the commentaries and influences on contemporary civilization by European and American writers of fiction. The short story and/or the novel will be studied in terms of structure, plot, setting, character development, point of view, tone and style which, in concert, will provide a deeper understanding of the author's vision.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 102H ENGLISH COMPOSITION II HONORS..... 3-3-0
ENG 102 focuses on writing the college-level research paper and develops each student's mastery of communication, information literacy, and analytic skills with emphasis placed on research and documentation methods. Students use writing, reading, listening, and observations skills to understand, organize, receive, and convey information. Using research gleaned from diverse sources, students employ logic, reasoning, and analysis to craft effective essays. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading; forming judgments based on evidence, often from integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C, or equivalent

ENG 201 SURVEY OF ENGLISH LITERATURE 1.....3-3-0
This course is a chronological survey of English literature from the beginnings through the Neoclassical Period. The emphasis is on major writers, whose works are studied for their literary value and in their historical and philosophical contexts.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 235 POETRY..... 3-3-0
This course will include a study of the techniques and styles of poetry as a means of understanding human experience. The course will be a survey of poems selected because of the insights and revelations which they provide. The course will also provide appropriate background information and instruction in types, techniques, and styles of poetic composition with special emphasis on the relationship of these matters to the poetic vision of each work.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 256 LITERATURE AND FILM..... 3-3-0
The purpose of this course is to acquaint the student with works of literature and their adaptations into films. Both forms will be discussed and studied as expressions of human experiences. The emphasis of the course will be on the literary work; typically, the film will be viewed and discussed as an adaptation of that work.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 257 CONTEMPORARY LITERATURE.....3-3-0
This course is designed to familiarize the student with what some of our best writers are doing today; possible emphases include journeys into the mind and the effects of electronic media. Such writers as Kerouac, Ginsberg, Barthelme, Baraka, Pynchon, Barth, Bellow and Oates may be discussed.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

ENG 275 SHAKESPEARE.....3-3-0
This course is a general introduction to the comedies, histories, and tragedies of Shakespeare. The aim of the course is to enable the student to appreciate Shakespeare's dramatic ability, his skill with language, and his insights into humanity.
Prerequisites:
ENG 101 - English Composition I with minimum grade of C

NANOFABRICATION

ESC 211 MATERIAL, SAFETY & EQUIP NANOTECH FOR NANOFABRICATION.....3-2-2
This course overviews basic material properties as well as environment, health, and safety (EHS) issues in equipment operation and materials handling in "top down" and "bottom up" nanofabrication. The chemical and physical materials properties underlying nanotechnology are surveyed. EHS topics arising from the processing and disposal of these materials are addressed including: cleanroom operation, OSHA lab standard safety training, health issues, biosafety levels (BSL) guidelines, and environmental concerns. Specific safety issues dealing with nanofabrication equipment, materials, and processing will also be discussed including those pertinent to wet benches, thermal processing tools, vacuum systems and pumps, gas delivery systems and toxic substance handling and detection. This course is designed to be one of six capstone courses (ESC 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Luber Bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, "hands-on" materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.
Prerequisites:
A department recommendation, upon review of appropriate educational background, academic performance and personal interview

ESC 214 PATTERNING FOR NANOTECHNOLOGY..... 3-2-2
This course is a hands-on treatment of all aspects of advanced pattern transfer and pattern transfer equipment including probe techniques; stamping and embossing; e-beam; and optical contact and stepper systems. The course is divided into five major sections. The first section is an overview of all pattern generation processes covering aspects from substrate preparation to tool operation. The second section concentrates on photolithography and examines such topics as mask template, and mold generation. Chemical makeup of resists will be discussed including polymers, solvents, sensitizers, and additives. The role or dyes and antireflective coatings will be discussed. In addition, critical dimension (CD) control and profile control of resists will be investigated. The third section will discuss the particle beam lithographic techniques such as e-beam lithography. The fourth section covers probe pattern generation and the fifth section explores imprinting lithography, step-and-flash, stamp lithography, and self-assembled lithography. This course is designed to be one of six capstone courses (Esc 2ll, 212,213,214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert bldg., Manufacturing Technology and thus has a wide variety of very specialized, "hands-on" materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and tem problem solving will be stressed.
Prerequisites:
ESC 213 - Materials in Nanotechnology

ESC 212 BASIC NANOTECHNOLOGY PROCESSES..... 3-2-2
This course is an overview of the broad spectrum of processing approaches involved in "top down", "bottom up", and hybrid nanofabrication. The majority of the course details a step-by-step description of the equipment, facilities processes and process flow used in today's device and structure fabrication. Students learn to appreciate processing and manufacturing concerns including safety, process control, contamination, yield, and processing interaction. The students design process flows for micro- and nano-scale systems. Students learn the similarities and differences in "top down" and "bottom up" equipment and process flows by undertaking hands-on processing. This hands-on overview exposure covers basic nanofabrication processes including deposition, etching, and pattern transfer. This course is designed to be one of six capstone courses (Esc 211, 212, 213. 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, "hands-on" materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.
Prerequisites:
ESC 211 - Material, Safety and Equipment Overview for Nanofabrication

ESC 213 MATERIALS IN NANOTECHNOLOGY..... 3-2-2
This course is an in-depth, hands-on exposure to the producing and tailoring of the materials used in nanofabrication. The course will cover chemical materials production techniques such as colloidal chemistry; atmosphere, low-pressure and plasma enhanced chemical vapor deposition; nebulization; and atomic layer deposition. It will also cover physical techniques such as sputtering; thermal and electron beam evaporation; and spin-on approaches. This course is designed to give students experience in producing a wide variety of materials tailored for their mechanical, electrical, optical, magnetic, and biological properties. This course is designed to be one of six capstone courses (Esc 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Luber bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, "hands-on" materials and facilities continually available to students. The course grade evaluation will use mixture of tests, presentations, reports and project assignments. Teaming and team problem solving will be stressed.
Prerequisites:
ESC 212 - Basic Nanotechnology Processes

ESC 215 MATERIALS MODIFICATION/NANOTECHNOLOGY..... 3-2-2
This course covers the applications of nano-scale devices and systems and the material chemical, physical, biological, or multiple-property requirements necessitated in these applications. Material modifications to meet these requirements will be addressed including structure control, composition control, surface property control, strain control, functionalization, and doping. This course is designed to be one of six capstone courses (Esc 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert Bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, "hands-on" materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.
Prerequisites:
ESC 214 - Patterning for Nanotechnology

ESC 216 CHARACTERIZATION, PACKAGING, AND TESTING OF NANOTECHNOLOGY STRUCTURES AND MATERIALS..... 3-2-2
This course examines a variety of techniques and measurements essential for testing and for controlling material fabrication and final device performance. Characterization includes electrical, optical, physical, and chemical approaches. The characterization experience will include hands-on use of tools such as the Atomic Force Microscope (AFM), Scanning Electron Microscope (SEM), 1 nm resolution field emission SEM, fluorescence microscopes, and Fourier transform infrared spectroscopy. This course is designed to be one of six capstone courses (ESC 211, 212, 213, 214, 215, 216) for the Penn State Semiconductor Manufacturing Technology (SMT) program. The course is lab intensive, leveraging the Nanofabrication Facility on the University Park campus. All lectures will be given in a technology classroom, Suite 114 Lubert Bldg., Research Park. This classroom is dedicated to the Center for Semiconductor Manufacturing Technology and thus has a wide variety of very specialized, "hands-on" materials and facilities continually available to students. The course grade evaluation will use a mixture of tests, presentations, reports, and project assignments. Teaming and team problem solving will be stressed.
Prerequisites:
A department recommendation, upon review of appropriate educational background, academic performance and personal interview

ESC 105 INTRODUCTION TO NANOTECHNOLOGY AND MICRO FABRICATION TECHNIQUES.....
This introductory course provides students with a broad overview of nanotechnology, nano- and microfabrication, and their applications in modern science and engineering. Through a combination of lectures and hands-on laboratory experiments, students explore the history, unique properties, and fabrication techniques of materials at the nanoscale. Topics include top-down and bottom-up nanofabrication methods, materials characterization techniques, and applications of nanotechnology in energy, medicine, biology and other applications. Students will gain experience with laboratory procedures such as photolithography, etching, nanoparticle synthesis, electrodeposition, etc. The course also addresses nanotoxicity, ethics, and public policy considerations in the responsible development of nanotechnology. This course prepares students for advanced study or participation in the Nanomanufacturing Technology (NMT) Capstone Semester at Penn State University and supports pathways toward an A.A.S. degree in Nanofabrication at Montgomery County Community College (MC3).
Prerequisites:
ENG 011 - Basic Writing II with a minumum grade of C
REA 011 - Fundamentals of College Reading with a minimum grade of C
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years
High School Chemistry, CHE 121 - General Chemistry - Inorganic, CHE 131 - Chemistry for Technology I, or CHE 151 - Principles of Chemistry I with a minimum grade of C within 5 years

ENGLISH/SECOND LANG

ESL 004 ENGLISH AS A SECOND LANGUAGE II..... 0-6-0
This ESL course is designed to develop the student's communication skills and the knowledge of basic grammar and vocabulary. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.

ESL 014 VOCABULARY AND READING COMPREHENSION DEVELOPMENT I.....0-3-0
This reading course, designed for non-native English speaking students, focuses on development of academic reading skills, literal and interpretative comprehension, and vocabulary development. This course prepares non-native English speaking students to take college courses leading to a degree, a certificate, or to transfer.? This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
ESL 006 - English as a Second Language IV with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the course description online.

ESL 009 ORAL SKILLS.....0-3-0
A course designed for developing listening comprehension and pronunciation skills for ESL students with low intermediate English proficiency. By using lessons and natural speech, the student should attain accuracy at the sound, word and sentence level. Conversation practice will be based on topical discussions, readings and student debates. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
ESL 006 - English as a Second Language IV with a minimum grade of C

ESL 006 ENGLISH AS A SECOND LANGUAGE IV.....0-6-0
This ESL course is designed to develop the student's competency in oral communication, use of complicated grammatical structures and paragraph writing. This course is for students who have completed ESL 005 or have an appropriate score on the placement test. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
ESL 005 - English As a Second Language III with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the course description online.

ESL 017 VOCABULARY & READING COMPREHENSION DEVELOPMENT II.....0-3-0
Vocabulary and Reading Comprehension Development is designed to prepare advanced non-native English speaking students for the rigors of a college curriculum. The course focuses on comprehension strategies, critical reading and thinking, information literacy, and vocabulary development. There is a strong emphasis on vocabulary development. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
REA 014 - Vocabulary and Reading Comprehension Development I with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the course description online.

ESL 005 ENGLISH AS A SECOND LANGUAGE III..... 0-6-0
This ESL course introduces the student to everyday speech, vocabulary and pronunciation with practice in listening/speaking and writing. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
ESL 004 - English As a Second Language II with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the course description online.

ESL 010 BASIC WRITING I.....0-3-0
ESL 010 is an intermediate course to develop writing skills and teach communication through writing. This course reviews simple and advanced verb forms, adjectives and adverbs. Emphasis is on the sentence: word order, word choice, sentence combining and punctuation. Students will build upon their sentence skills to develop a unified paragraph utilizing topic sentences. This is a required course for students who have successfully completed ESL 006 or have an appropriate score on the placement test. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
ESL 006 - English As a Second Language IV with a minimum grade of C

ESL 011 BASIC WRITING II.....0-3-0
This course covers advanced grammar structures and paragraph development. Emphasis is placed on writing in a coherent and well organized manner through the development of main ideas/topic sentences, supporting information and conclusion. This course is for students who have successfully completed ESL 010 or have an appropriate score on the placement test. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
ESL 010 - ESL Basic Writing I with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the course description online.

FRENCH

FRE 251 ADVANCED FRENCH I..... 3-3-0
Advanced French I is a course designed to improve proficiency in written and oral French. Students will study French politics and the culture diversity within the French-speaking countries via authentic materials selected from authentic media as well as from cultural readings. French literature is approached through the study of representative excerpts from the works of major French authors.
Prerequisites:
FRE 202 - Intermediate French II

FRE 101 ELEMENTARY FRENCH I..... 3-3-0
Elementary French I is an introduction to the French language. Students will learn to master basic communicative situations in French at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in French. In addition, students will learn about the culture in French speaking countries.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

FRE 202 INTERMEDIATE FRENCH II.....3-3-0
Intermediate French II is the continuation of Intermediate French I. Students will master communicative tasks in French at a mid-intermediate level. Learners are at ease when performing uncomplicated tasks in speaking, listening, reading, and writing. In addition, students will summarize the linguistic and cultural diversity of French speaking countries through the analysis of French movie scenes.
Prerequisites:
FRE 201 - Intermediate French I

FRE 252 ADVANCED FRENCH II..... 3-3-0
Advanced French II is a continuation of Advanced French I. It is a course designed to improve proficiency in written and oral French. Students will continue to study the contemporary culture of France and the French-speaking countries via authentic materials selected from authentic media as well as from cultural readings. French literature is approached through the study of representative excerpts from the works of major French authors.
Prerequisites:
FRE 251 - Advanced French I

FRE 102 ELEMENTARY FRENCH II..... 3-3-0
Elementary French II is the continuation of Elementary French I. Students will master basic communicative situations in French at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in French. In addition, students will identify the linguistic and cultural diversity of French speaking countries.
Prerequisites:
FRE 101 - Elementary French I

FRE 201 INTERMEDIATE FRENCH I.....3-3-0
Intermediate French I is the continuation of Elementary French II. Students will master uncomplicated communicative tasks in French at a low intermediate level. Learners will express personal meaning by combining and recombining what they know and what they hear from their interlocutors into short statements. In addition, students will identify the linguistic and cultural diversity of French speaking countries through an introduction to French literature.
Prerequisites:
FRE 102 - Elementary French II or FRE 190 - Introductory French for Business

ECONOMICS

ECO 110 ELEMENTS OF ECONOMICS.....3-3-0
Students will develop economic literacy in both macroeconomics (business cycles, inflation, unemployment, etc.) and microeconomics (markets, competition, poverty, pollution, etc.). Business majors planning to transfer may not substitute this course for ECO 121 Macroeconomics or ECO 122 Microeconomics.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 010 - Fundamentals of Arithmetic, or MAT 010B - Review of the Fundamentals of Arithmetic

ECO 122 MICROECONOMICS..... 3-3-0
Students are introduced to the American capitalist market system. Microeconomic topics discussed are markets, pricing, competition, and resource allocation both domestically and internationally. Also discussed are government policies directed at solving problems in these areas.
Prerequisites:
ECO 110 - Elements of Economics or ECO 121 - Macroeconomics

ECO 111 PERSONAL FINANCE.....3-3-0
Students will learn the management of personal finances, and how to solve personal financial problems. Topics include saving, borrowing, purchasing life, health and property insurance, social security, home buying, buying stocks and bonds, and estate planning.

ECO 115 PRINCIPLES OF PERSONAL INVESTING.....3-3-0
Students learn both a conceptual and applied approach to personal investments. Financial theory is used as a practical guide to understanding the workings of financial markets. Topics include the investment risk/return relationship, debt and equity instruments, sources of investment information, efficient markets, managing your portfolio, and investment companies.

ECO 121 MACROECONOMICS.....3-3-0
Students are introduced to the basic economic problem, the study of economics, and the American capitalist market system. Macroeconomic topics discussed are the business cycle, inflation, unemployment, economic growth, and government policies for stability and growth.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years

ECO 121H MACROECONOMICS HONORS..... 3-3-0
Students are introduced to the basic economic problem, the study of economics, and the American capitalist market system. Macroeconomic topics discussed are the business cycle, inflation, unemployment, economic growth, and government policies for stability and growth. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years

EXERCISE SCIENCE AND WELLNESS

ESW 100 FOUNDATIONS OF PHYSICAL EDUCATION.....2-1-2
This course is designed to acquaint the student with the concepts of physical education as the study of Human Movement, motor development, and socialization of sport. Emphasis is placed on the ways body movement enhances growth, development, and wellness of the mind and body. Practical applications and activities will be included. **This course is subject to a course fee.**

ESW 102 INTRODUCTION TO EXERCISE SCIENCE, WELLNESS, AND SPORTS STUDIES.....3-3-0
This ESW majors course is designed to provide foundational knowledge in exercise science, wellness, and sport studies through a broad range of classroom presentations and service learning experiences as well as integration of technology. Students will explore the various professional opportunities in the field and will develop an educational and professional plan to support their career aspirations.

ESW 146 CONDITIONING, WEIGHT TRAINING, AND WEIGHT CONTROL.....2-1-2
This course is designed to introduce the student to all areas of fitness training including progressive resistance (weight training), cardiovascular training, flexibility, and weight management. The student develops skills in planning and implementing personal fitness programs designed to meet student-own personal needs. Basic understanding of the physiological and psychological principles of human fitness is emphasized. Course designed for both women and men. Separate sections may be offered. **This course is subject to a course fee.**

ESW 151 FUNDAMENTALS OF FUNCTIONAL TRAINING.....2-1-2
This course is designed to introduce the student to functional fitness practices which will enhance human performance through the lifespan. Special emphasis will be placed on the health and skill related components of fitness. The course will also focus on developing skills in planning and implementing functional training programs.

ESW 160 MARTIAL ARTS & SELF-DEFENSE.....2-1-2
This course is designed to acquaint the student with the basic principles of the martial arts and the techniques of self-defense. Emphasis is placed on learning the basic forms and positions of Karate, Judo and Self-Defense. **This course is subject to a course fee.**

ESW 148 HATHA YOGA.....2-1-2
Introduction to Hatha Yoga postures, breathing exercises, mental discipline, terminology, precepts and practices. The influence of Yoga on Western culture and guideline for advanced study will also be discussed. **This course is subject to a course fee.**

ESW 215 PREVENTION & CARE OF ATHLETIC INJURY..... 3-2-1
This course is designed to address the prevention and management of injuries in athletic activities. Course content includes discussion of relevant sports medicine issues, physical conditioning and training, nutritional and psychological concerns, ergogenic aids, and injury recognition. Practice is provided in the use of wrapping, taping, and therapeutic rehabilitation programs. **This course is subject to a course fee.**
Prerequisites:
BIO 129 - Functional Human Anatomy and Physiology or both BIO 131 - Human Anatomy and Physiology I and BIO 132 - Human Anatomy and Physiology II with minimum grades of C

ESW 222 APPLIED KINESIOLOGY..... 3-3-0
This course is designed to introduce the student to the basic fundamentals of human movement, structural characteristics, articulations, and muscular actions around the major joints. The student will apply the basic anatomical and physical principles of human motion, the principles of biomechanics and the theory of neuromuscular action used in motor skills for occupational, daily living activities, and fitness across the lifespan. Upon completion of the course, the student will be able to fully analyze joint actions and muscles involved in multi-joint exercises or sport movements. In addition, the student will be able to identify and recommend exercises to enhance performance based on appropriate muscular analysis.
Prerequisites:
BIO 129 - Functional Human Anatomy and Physiology or both BIO 131 - Human Anatomy and Physiology I and BIO 132 - Human Anatomy and Physiology II

ESW 255 HUMAN SEXUALITY.....3-3-0
A survey of the major topic of sex education with emphasis placed on: sexual development, functioning, behavior, gender identification, reproduction, interpersonal relationships, health, historical and cultural sex studies, and sex education.

ESW 206 BASIC NUTRITION.....3-3-0
This course will introduce students to the study of nutrition. It will incorporate fundamental scientific principles enabling students to develop their own nutritional lifestyle compatible with these principles. The course will provide an understanding of nutrients, their function in the body, deficiency diseases, body composition, nutrition and physical activity, nutrition through the life span, food faddism, consumer issues, and an evaluation of diets. The course will encourage the intelligent application of information so to enable the students to succeed in implementing good nutrition in their own lives.

ESW 228 RESEARCH METHODS IN EXERCISE SCIENCE & W..... 2-2-0
This course introduces the students to the research trends and skills required to conduct valid research in exercise science, wellness, and health professions. Students will explore the latest trends, legal, and ethical issues as they relate to research. Students will develop skills in research, including research design, developing hypotheses and related research questions, conducting analysis and interpreting data, and presenting the data to an audience. The course will guide students through the development and implementation steps of a research project related to the exercise science, wellness, and health professions.
Prerequisites:
ENG 102 - English Composition II, plus all other courses in the previous three semesters in the ESW AS program of study
MAT*106 - Math Applications, or MAT*130 Probability and Statistics, or MAT*131 - Introduction to Statistics I.
ESW 102 - Introduction to Exercise Science, Wellness and Sports Studies, plus all other courses in the previous three semesters in the ESW AS program of study

ESW 210 HOLISTIC HEALTH: COMPLEMENTARY AND ALTERNATIVE HEALTH PRACTICES.....3-3-0
This course will explore the use of complementary and alternative health practices within a holistic framework of care. A spirit of inquiry will be encouraged through sharing of knowledge, demonstration and exploration of selected health practices such as herbal remedies, homeopathy, healing touch therapies, chiropractic and Eastern therapies. Use of complementary and alternative health practices will be evaluated in the context of managing health conditions such as pain, weight, addictions, and gender specific issues. This course will examine use of complementary and alternative health practices in terms of safety, effectiveness and integration into one's own lifestyle and working with others.

ESW 226 ASSESSMENT OF HUMAN FITNESS..... 3-3-0
This course is designed to introduce the student to the use of health and fitness assessment technology and testing mechanisms needed to assess the physical fitness status of individuals in healthy and selected special populations. Students will perform assessments for the five (5) components of health related physical fitness: Cardiorespiratory endurance; Muscular strength and endurance; Flexibility; and Body composition. The data gathered from the fitness assessments will be used to develop appropriate fitness goals and exercise programs.
Prerequisites:
BIO 129 - Functional Human Anatomy and Physiology or both BIO 131 - Human Anatomy and Physiology I and BIO 132 - Human Anatomy and Physiology II

ESW 227 EXERCISE PROGRAMMING FOR HEALTHY AND SPECIAL POPULATIONS.....3-3-0
This course focuses on providing the student with the knowledge and experience needed to design exercise programs for individuals who meet the ACSM guidelines for healthy adult and special populations. Emphasis will be placed on practical approaches to fitness program design and appropriate adaptations and individualized modifications for each participant. Upon completion of the course, the student will be able to work in a broad range of physical activity settings by applying principles of exercise programming to meet the specific needs of each individual, working in one-on-one and small group settings.
Prerequisites:
ESW 226 - Assessment of Human Fitness

ESW 236 PERSONAL HEALTH AND WELLNESS.....3-3-0
This course assists the student in assimilating strategies to assess current lifestyle behaviors that promote personal, community and global health behavior changes across the lifespan. The student explores each of the Six Dimensions of Wellness, including physical, social, emotional, environmental, intellectual, and spiritual elements involved in achieving a healthy lifestyle.

ESW 245 SAFETY & FIRST AID.....3-3-0
This course is designed to develop and provide the citizen responder with the knowledge and skills necessary to help sustain life and minimize the consequences of injury or sudden illness until advanced medical care arrives. American Heart Association certifications in Heartsaver First Aid; Adult/Child and Infant Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) are available upon meeting certification requirements. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ESW 296 PRACTICUM IN EXERCISE SCIENCE AND WELLNESS... 4-1-5
Integrating a seminar and practicum experience in this course serves as the capstone course for the Health and Fitness Professional AAS and Personal Training Certificate programs. The course also offers students in the Exercise Science and Wellness AS degree program an opportunity to gain practical experience as it relates to each student's educational and career goals. Emphasis will be placed on professionalism, employment strategies, career options, and current issues in the health and fitness field. The field practicum is held in an educational fitness setting where the student works under the direct supervision of a cooperating supervisor. A faculty member arranges the placement and supervises the student on site visitations. At the completion of the course the student prepares a professional portfolio and sits for the ACSM Personal Training certification exam. **This course is subject to a course fee.**
Prerequisites:
ESW 222 - Applied Kinesiology
ESW 226 - Assessment of Human Fitness
ESW 224 - Exercise Physiology
Corequisites:
ESW 227 - Exercies Programming for Healthy and Special Populations. May be taken prior or during course.

ESW 207 FOOD & CULTURE.....3-3-0
This survey course introduces students to the study of Food & Culture, unraveling, in a regional approach, how historically and geographically meeting our human nutritional needs has been intertwined with the evolution of our modern eating habits. Beginning with the traditional beliefs and practices of the earliest global villages and continuing into today's American 'Melting Pot' of great culinary diversity, this course takes a multicultural and multiethnic approach to food and regional geography.

ESW 224 EXERCISE PHYSIOLOGY WITH LAB..... 4-3-2
This ESW major's course examines the physiological response and adaptations to acute and chronic bouts of exercise, training regimens, and environmental conditions. Through experiential learning, research, and technology, the student will analyze physiological responses to exercise. Training principles, nutritional considerations, and optimal human performance across the lifespan will be identified and analyzed. The lab component of the course will allow students to apply the concepts introduced in the lecture portion in hands-on and computer simulated learning opportunities.
Prerequisites:
BIO 129 - Functional Human Anatomy and Physiology with minimum grade of C or both BIO 131 - Human Anatomy and Physiology I and BIO 132 - Human Anatomy and Physiology II with minimum grades of C

ESW 246 CARDIOPULMONARY RESUSCITATION FOR HEALTHCARE PROFESSIONALS.....1-1-0
The Cardiopulmonary Resuscitation (CPR) for the Healthcare Professional course is designed to teach the skills of CPR for victims of all ages including ventilation with a barrier device, a bag-mask device, and oxygen; use of an automated external defibrillator (AED); and relief of foreign-body airway obstruction (FBAO). It is intended for individuals who provide healthcare to clients in a wide variety of venues. This two- week course includes discussion of healthy heart living and one mandatory on-campus day for skills completion as per AHA 2015 Guidelines BLS course. **This course is subject to a course fee.**

GERMAN

GER 202 INTERMEDIATE GERMAN II..... 3-3-0
Intermediate German II is the continuation of Intermediate German I. Students will master communicative tasks in German at a mid intermediate level: Learners are at ease when performing uncomplicated tasks in speaking, listening, reading, and writing. In addition, students will summarize the linguistic and cultural diversity of German speaking countries through the analysis of German movie scenes.
Prerequisites:
GER 201 - Intermediate German I or approval from the instructor

GER 201 INTERMEDIATE GERMAN I..... 3-3-0
Intermediate German I is the continuation of Elementary German II. Students will master uncomplicated communicative tasks in German at a low intermediate level. Learners will express personal meaning by combining and recombining what they know and what they hear from their interlocutors into short statements. In addition, students will identify the linguistic and cultural diversity of German speaking countries through an introduction to German literature.
Prerequisites:
GER 102 - Elementary German II

GER 102 ELEMENTARY GERMAN II.....3-3-0
Elementary German II is the continuation of Elementary German I. Students will master basic communicative situations in German at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in German. In addition, students will identify the linguistic and cultural diversity of German speaking countries.
Prerequisites:
GER 101 - Elementary German I

GER 101 ELEMENTARY GERMAN I.....3-3-0
Elementary German I is an introduction to the German language. Students will learn to master basic communicative situations in German at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in German. In addition, students will learn about the culture in German speaking countries.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ENTREPRENEURSHIP

ETP 110 ENTREPRENEURIAL ESSENTIALS..... 3-3-0
This course will enable a student to explore the viability of a proposed entrepreneurial venture as well as key concepts and principles related to entrepreneurship. By conducting due-diligence research, the student will evaluate consumer and economic data that will result in a data-supported decision regarding the feasibility of a proposed venture.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ETP 110H ENTREPRENEURIAL ESSENTIALS HONORS..... 3-3-0
This course will enable a student to explore the viability of a proposed entrepreneurial venture as well as key concepts and principles related to entrepreneurship. By conducting due-diligence research, the student will evaluate consumer and economic data that will result in a data-supported decision regarding the feasibility of a proposed venture. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ETP 113 ENTREPRENEURIAL BUSINESS PLAN.....3-3-0
This course will enable the student to prepare a professional, comprehensive business plan that will guide their business start-up and address capital funding. Topics to be covered include: the parts of a business plan, the planning process, and writing techniques that will get the plan noticed.
Prerequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

HEALTH CARE PROFESSIONS

HCP 104 HUMAN BODY IN HEALTH AND DISEASE..... 3-3-0
This introductory course provides students with the essentials of anatomy, the basic functions of the human body and the effects of disease using a systems approach. The normal structural organization and processes of each body system, common diseases, clinical applications, treatments and diagnostic procedures will be examined.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II

HCP 117 MEDICAL OFFICE ADMINISTRATION..... 4-4-0
This course builds a solid foundation in Medical Office Administrative skills and introduces students to the administrative procedures and business practices commonly performed in the medical office. Emphasis on financial practices, health insurance, reimbursement, therapeutic communication and patient education will help prepare the student for entry level office administration. Course specific competency evaluations must be successfully completed by the student. **This course is subject to a course fee.**
Prerequisites:
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
Corequisites:
HCP 224 - Medical Terminology. May be taken prior or during course.
HCP 100 - Medical Office Technologies and the EHR. May be taken prior or during course.
HCP 114 - Medical Law and Ethics. May be taken prior or during course.

HCP 140 INTRODUCTION TO HEALTHCARE ADMINISTRATION..... 3-3-0
This introductory course provides a broad overview of healthcare administration. Topics covered include the major components of the health delivery system, and the roles and responsibilities of health care professionals. It will explore the impact of technology, finance, law, ethics, and leadership on the administration of health care services and examine emerging issues and trends impacting the health care industry.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II

HCP 220 GENERAL PHARMACOLOGY.....3-3-0
Designed for the student who has a basic understanding of the human body and how it works. This course emphasizes the major drug classifications, related legal/ethical considerations, pharmakokinetics, pharmakodynamics, drug toxicity and therapeutic monitoring.

HCP 120 ETHICAL ISSUES AFFECTING CONSUMERS AND THE HEALTH CARE PROFESSIONS.....3-3-0
This course addresses the needs of the health care consumer and the provider alike. Stemming from a philosophical base, this course will examine controversies emerging from rapid technological advances and modern health care practice. Conflicts discussed range from the person's right to choose or refuse a particular course of treatment to issues of euthanasia, genetic research, and human experimentation. Students are encouraged to participate in discussions of ethical problems reported in the popular media and to develop a personal decision-making system which can be applied to a variety of ethical issues. Emphasis is on critical analysis and the incorporation of theory to ethical deliberations. The course is interactive, therefore, open discussion format and familiarity with use of the computer is essential.

HCP 121 LABORATORY PROCEDURES IN THE MEDICAL OFFICE 3-2-2
This comprehensive course introduces the student to the purpose, techniques and documentation of diagnostic laboratory procedures commonly performed in the medical office. Subjects covered include general laboratory techniques, phlebotomy, specimen collection, handling and processing, diagnostic testing and performing hematology, chemistry, urinalysis, microbiology and immunology testing. Course specific competency evaluations must be successfully completed by the student. The course will assist the student in developing basic laboratory skills and a firm understanding of the scientific method, enabling students to appreciate the scientific process, and build scientific reasoning and critical thinking skills that are applicable to their career as a health care professional. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
HCP/MAS/BIO 104 - The Human Body in Health and Disease OR BIO 103 - Introduction to Anatomy and Physiology OR BIO 131 - Human Anatomy and Physiology I AND BIO 132 - Human Anatomy and Physiology II. May be taken prior or during course.
HCP 224 - Medical Terminology. May be taken prior or during course.

HCP 226 PRINCIPLES OF MEDICAL CODING I..... 3-3-0
This course is designed to provide the student with an understanding of coding and classification systems in order to assign valid diagnostic and/or procedure codes for medical billing and reimbursement required by the Health Insurance Portability and Accountability Act (HIPAA) including the validation of coded clinical information. The ICD-CM classification system is introduced with an emphasis on use of the alphabetic index and tabular list for code assignment. The course focuses on ICD-CM rules, conventions, and instructions as well as specific guidelines (e.g. circulatory, injury, pregnancy), including assignment criteria for principal and additional diagnoses in all applicable patient settings. The impact of proper code assignment, MS-DRGs and reimbursement are also discussed.
Prerequisites:
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
HCP 104 - The Human Body in Health and Disease OR BIO 131 - Human Anatomy and Physiology I AND BIO 132 - Human Anatomy and Physiology II. May be taken prior or during course.
HCP 224 - Medical Terminology. May be taken prior or during course.

HCP 227 PRINCIPLES OF MEDICAL CODING II.....3-3-0
This course expands student knowledge of coding and classification systems in order to assign valid diagnostic and/or procedure codes for medical billing and reimbursement required by the Health Insurance Portability and Accountability Act (HIPAA) including the validation of coded clinical information. Focus is placed on the ICD-10-CM/PCS (The International Classification of Diseases 10th Revision Procedure Coding System), HCPCS I and II (Healthcare Common Procedure Coding System) and CPT (Current Procedural Terminology) classification systems. The course utilizes the professional standards for coding and reporting of diagnostic and procedural inpatient and outpatient services. Students will identify and apply coding characteristics, conventions and accurately assign codes to diseases, conditions and procedures.
Prerequisites:
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
HCP/MAS/BIO 104 - The Human Body in Health and Disease OR BIO 131 - Human Anatomy and Physiology I AND BIO 132 Human Anatomy and Physiology II. May be taken prior or during course.
HCP 224 - Medical Terminology. May be taken prior or during course.
HCP 226 - Medical Coding I. May be taken prior or during course.
HCP 230 - CPT Coding & Reimbursement. May be taken prior or during course.

HCP 230 CPT CODING AND REIMBURSEMENT METHODS.....3-3-0
This course is designed to expand student knowledge of medical codes used in billing and reimbursement with emphasis on Current Procedural Terminology (CPT), Healthcare Common Procedure Coding System (HCPCS) II and the Ambulatory Payment Classifications (APCs) classification systems. The use of diagnosis and procedure codes for professional services reimbursement and coding systems for reimbursement will be analyzed. The relationship between these coding systems will be explored as well as the coding systems used by non-physician medical suppliers and for durable medical equipment. Students will explore the components of the major insurance companies and their impact on billing and reimbursement.
Prerequisites:
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
HCP/MAS/BIO 104 - The Human Body in Health and Disease OR BIO 131 - Human Anatomy and Physiology I AND BIO 132 Human Anatomy and Physiology II. May be taken prior or during course.
HCP 224 - Medical Terminology. May be taken prior or during course.
HCP 226 - Medical Coding I. May be taken prior or during course.

HCP 105 CAREERS IN HEALTH CARE..... 1-1-0
Professions in the health care industry offer students a wide range of career opportunities. This course will provide an overview of the health care industry and the variety of disciplines that support it. The course will investigate health care careers, focusing on the nature of the work, legal and ethical responsibilities, as well as required abilities, educational preparation and credentialing. Understanding the impact of current trends in health care on employment will assist students toward planning and pursuit of their own career goals. An opportunity to interface with a variety of health care practitioners encourages discussion and examination of professional activities.

HCP 100 MEDICAL OFFICE TECHNOLOGIES AND THE EHR.....3-3-0
This course provides the student with an overview of the use of computer systems and electronic health record (EHR) software in today's medical office environment. Students will learn skills, terminology, and theories to manage EHRs and utilize Microsoft Office and Microsoft Word. A hands-on approach will give students the opportunity to develop technology skills that are applicable to their career as a healthcare professional.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
HCP 224 - Medical Terminology. May be taken prior or during course.

HCP 118 PROFESSIONAL ESSENTIALS FOR A HEALTHCARE CAREER..... 3-3-0
This course builds a solid foundation of the professional skills required to work within the health care community. It provides students with an introduction to health care organization and examines behaviors that impact their career as a health care professional. Students will explore the impact of cultural competency and sensitivity when working with others in inter-professional collaborative practice and explore patient relationships and advocacy. **This course is subject to a course fee.**
Prerequisites:
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II

HCP 114 MEDICAL LAW AND ETHICS PROFESSIONALS.....3-3-0
This course provides the student with a deeper understanding of legal and ethical issues in healthcare. Students explore the legal, ethical and moral dilemmas currently faced by healthcare professionals, and identify issues related to potential legal liability in the workplace.

HCP 224 MEDICAL TERMINOLOGY..... 3-3-0
This course is designed to develop a basic understanding of human body systems and the medical vocabulary associated with these systems. While attaining a working knowledge of human anatomy, students will experience a word-building system comprised of medical prefixes, suffixes and word roots which will allow them to write and to develop fundamental concepts for the meaning of various medical nomenclature. Accurate spelling, medical definitions, and medical abbreviations are key elements.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II

HCP 200 HEALTHCARE DELIVERY SYSTEMS.....3-3-0
This course explores the major characteristics, foundations, and future of the U.S. health care system. It will examine the impact of organizational structure and reimbursement on healthcare delivery systems, explore current health care trends and analyze the impact of technology, cultural competency, and health care law and ethics on the provision of patient care.
Prerequisites:
HCP 140 - Introduction to Healthcare Administration

HCP 221 CULTURAL COMPETENCY IN HEALTHCARE.....3-3-0
This course explores key cultural diversity concepts and examines systematic and disciplined approaches to the attainment of cultural competency. Students will survey multicultural theories, issues, and practices and acquire practical insight in the application of this knowledge in their day-to-day interactions in healthcare environments. Students will examine their own experiences, perspectives, and biases to further the development of multicultural awareness in their professional lives.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II

GEOGRAPHY

GEO 110 WORLD REGIONAL GEOGRAPHY..... 3-3-0
This introduction to the social science of geography is a regional approach that surveys the diverse cultural and physical patterns of the world. This course is designed to cover a wide range of topics related to the regions of the world including: physical, environmental, population, ethnic, language, religious, agricultural, economic, political, and urban characteristics. Spatial skills and tools such as maps, location, scale, and various models (demographic, economic development, and urbanization) will be employed to better understand the diversity of regional geography.

GEO 130 CULTURAL GEOGRAPHY..... 3-3-0
This introductory course in the social science of human geography surveys the spatial aspects of: human-environment interaction, religion, language, agriculture, industrial & economic development, urbanization, globalization and population trends, as well as other adjustments made to the cultural landscape.

GEO 210 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS..... 3-2-2
This introduction to Geographic Information Systems is structured to develop skills and knowledge of various geographic location systems and skill in basic geographic analysis with industry leading software. The course emphasizes the techniques of spatial problem solving. The weight of the course is on practical analysis skills including data compilation, projection, analysis and reporting.
Prerequisites:
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
MAT 080 - Fundamentals of Mathematics

GEO 207 FOOD & CULTURE.....3-3-0
This survey course introduces students to the study of Food & Culture, unraveling, in a regional approach, how historically and geographically meeting our human nutritional needs has been intertwined with the evolution of our modern eating habits. Beginning with the traditional beliefs and practices of the earliest global villages and continuing into today's American 'Melting Pot' of great culinary diversity, this course takes a multicultural and multiethnic approach to food and regional geography.

GEO 135 PHYSICAL GEOGRAPHY..... 3-3-0
This introduction to the science of physical geography describes the patterns of natural features on the earth. Topics will include location, landforms, hydrology, weather, climates, biological regions and human-environment interactions.

GEO 220 MAP DESIGN IN GEOGRAPHIC INFORMATION SYSTEMS (GIS).....3-2-2
This introduction to the art and science of cartography and geographic information systems is structured to develop skills in design and use of analytical and computer-mapping systems.
Prerequisites:
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
MAT 080 - Fundamentals of Mathematics

GEO 230 GIS APPLICATIONS..... 3-2-2
This workshop teaches advanced geographic analysis with Geographic Information Systems. Students will learn each of the advanced data import skills, standard symbol systems, specialized geographic analysis and pseudo-3d displays specific to their discipline, and be exposed to problems in other disciplines. Specific tracks are available for emergency management / criminal justice, business & marketing, social sciences & human services, and environmental science.
Prerequisites:
GEO 210 - Introduction to Geographic Information Systems or GEO 220 -Map Design in Geographic Information Systems (GIS)

GEO 110H WORLD REGIONAL GEOGRAPHY HONORS..... 3-3-0
This introduction to the social science of geography is a regional approach that surveys the diverse cultural and physical patterns of the world. This course is designed to cover a wide range of topics related to the regions of the world including: physical, environmental, population, ethnic, language, religious, agricultural, economic, political, and urban characteristics. Spatial skills and tools such as maps, location, scale, and various models (demographic, economic development, and urbanization) will be employed to better understand the diversity of regional geography. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading; forming judgments based on evidence, often from integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

GEOLOGY

GLG 125 THE SCIENCE OF CLIMATE CHANGE.....4-3-3
The Science of Climate Change is an introductory survey of the causes and consequences of climate change at a variety of time and spatial scales throughout Earth's history. Natural and human-induced climate change will be studied as physical processes with varying dimensions of biophysical and societal impacts. This course should be considered by the following students: those needing to fulfill a lab science Core requirement, those preparing for a career in environmental science, and those considering a Geology or Atmospheric Sciences major seeking a geoscience elective.
This course is subject to a course fee.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years. May be taken prior or during course.

GLG 115 ENVIRONMENTAL GEOLOGY..... 4-3-3
Environmental Geology is an examination of geologic processes which have impact upon humans and of the impact humans have upon those processes. Topics such as coastal erosion, flooding, earthquakes, radon, greenhouse effect, water quality, and waste disposal will be investigated. Environmental Geology should be considered by the following students: those needing a lab-science elective, those preparing for a career as an environmental technician, and those considering a Geology major seeking a geology elective. Class time and Saturday field trips will be taken. **This course is subject to a course fee.**
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic

GLG 151 PHYSICAL GEOLOGY.....4-3-3
Physical Geology is a survey of the physical character of the earth. Topics of surficial geology to be examined include weathering and mechanisms of erosion: mass movement, streams, wind, glaciers, and waves. The internal character of the earth will be explored by studying heat flow, seismology, volcanism and plutonism, metamorphism, crustal deformation and plate tectonics. Though this course and GLG152 are designed to accommodate requirements of the prospective geology major, GLG 151 and GLG 152 should be considered by the student who needs two successive semesters of the same science for transfer purposes. **This course is subject to a course fee.**
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years. May be taken prior or during course.

GLG 121 INTRO TO ASTRONOMY..... 4-3-3
Introduction to Astronomy is a one-semester college-level course in basic astronomy. The course may be used as a laboratory science elective with basic algebraic applications. The course explores a broad range astronomical concepts and principles in ten major areas: understanding the sky, apparent motions of the planets and the sun, telescopes and accompanying technology, basic structure and behavior of atoms, origin and analysis of light, origin of the solar system, internal structure and behavior of the sun, lifecycle of all stellar classes, origin and structure of galaxies, and cosmology. Throughout the course, emphasis is placed on the implementation of the scientific method, the evidence that astronomers use to support their conclusions, and the importance of astronomy. (Night-time observing is required). **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C within 5 years
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years, or High School Algebra II with a minimum grade of B within 5 years.. May be taken prior or during course.

GLG 120 EARTH SCIENCE.....4-3-3
Earth Science is a general survey course which includes the disciplines of Astronomy, Geology, Meteorology, and Oceanography. Specific topics to be examined include stellar evolution, planetary geology, cosmological theory, erosional and depositional processes, volcanoes, earthquakes, plate tectonics, weather patterns and forecasting. This course is recommended to fulfill a laboratory science requirement for non-science majors who do not have a strong science background. **This course is subject to a course fee.**

HISTORY

HIS 101H HISTORY OF WESTERN CIVILIZATION I: ANCIENT, MEDIEVAL, AND EARLY MODERN HONORS..... 3-3-0
This course is a survey of the origins of Western civilization starting with prehistoric man and the emergence of agriculture. The course continues with the study of the Ancient Near Eastern Civilizations, Greece and Rome, the Middle Ages and Europe up through the Renaissance and Reformation to roughly the eighteenth century. These civilizations are studied by looking at their economy, religion, politics, art, literature and everyday life. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading, artistic literacy, or original text analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

HIS 102H HISTORY OF WESTERN CIVILIZATION II: MODERN EUROPEAN HISTORY HONORS..... 3-3-0
A survey of western civilization covers the period from the middle of the seventeenth century to the twenty-first century. The course begins with the Scientific Revolution, Enlightenment and the French Revolution, and then proceeds to look at other challenges in society and culture and the impact of the West on the rest of the world through imperialism, totalitarianism and conflict. The Cold War and the modern period conclude the course. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original text analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

HIS 203 HISTORY OF THE UNITED STATES: TO 1877.....3-3-0
A survey of the political, social, economic, and intellectual history of the United States from pre-Columbian Indians through the period of the Civil War and Reconstruction.

HIS 121 WORLD CIVILIZATIONS I: TO 1500..... 3-3-0
A survey of world civilizations covers the period from prehistory to the sixteenth century. The course begins with the origin of humans, first river valley civilizations, empire-building, foundations of the great world religions, and then proceeds to look at the rise of Europe. The Renaissance and the early explorers will conclude the course. Government, societal, economic, cultural, and religious aspects are analyzed throughout the course.

HIS 122 WORLD CIVILIZATION II: FROM 1500..... 3-3-0
This course is a continuation of HIS 121. It is a survey of the major events that have occurred in the world since 1500. The interrelationships between the civilizations of Asia, Africa, Europe and the Americas provide many opportunities for comparisons of their varied histories. This course will help students gain a clearer understanding of a complicated, interdependent modern world.

HIS 205 HISTORY OF THE UNITED STATES: FROM 1877..... 3-3-0
A survey of the political, economic and intellectual history of the United States from the period of Reconstruction until the present. Emphasis is on the rise of industrial America and the growth of the country as a world power in the Twentieth Century.

HIS 214 AFRICAN-AMERICAN HISTORY AND CULTURE..... 3-3-0
This course is a chronological survey of the history of African Americans from their African beginnings through their progress in the twenty-first century. Five units in the history of African Americans will be emphasized - becoming African American, antebellum black life, the Civil War and Reconstruction, White Supremacy and legalized injustice, the Civil Rights movement through the modern era.

HIS 216 THE AMERICAN REVOLUTIONS, 1763-1800.....
This course will study the revolutionary changes in the United States from the start of the conflict with Great Britain to the establishment of a strong government beginning to be leavened by the spirit of Jeffersonian Democracy. Political, economic, social, and military history will all be covered, but there will be a particular emphasis on the reading and discussion of ideas of the period, especially ideas on revolution, self-government, and democracy.

HIS 102 HISTORY OF WESTERN CIVILIZATION II: MODERN EUROPEAN HISTORY..... 3-3-0
A survey of western civilization covers the period from the middle of the seventeenth century to the twenty-first century. The course begins with the Scientific Revolution, Enlightenment and the French Revolution, and then proceeds to look at other challenges in society and culture and the impact of the West on the rest of the world through imperialism, totalitarianism and conflict. The Cold War and the modern period conclude the course.

HIS 205H HISTORY OF THE UNITED STATES: FROM 1877 HONORS.....3-3-0
A survey of the political, economic and intellectual history of the United States from the period of Reconstruction until the present. Emphasis is on the rise of industrial America and the growth of the country as a world power in the Twentieth Century. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original text analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

HIS 215 AMERICAN IMMIGRATION..... 3-3-0
This course will examine the immigrant experience in the United States in a loose chronological manner by focusing on diversity issues, analyzing legislation and highlighting anti-immigrant social movements. The students will research the personal aspect of immigration by studying the lives of immigrants in autobiographical accounts and historical fiction. Class discussions will focus on discovering to what extent America is a society of immigrants.

HIS 235 MODERN CHINA..... 3-3-0
This course explores the origins and development of Modern China. The main subjects of the course are the fall of the Qing dynasty, the Western influence, the rivalry between the Chinese Communist Party and the Nationalist Guomindang Party, the Sino-Japanese War, and the emergence of the People's Republic of China, from the Mao years to the present.

HIS 241 THE HISTORY OF THE HOLOCAUST.....3-3-0
A survey of the Holocaust, the attempted annihilation of the Jews of Europe by Nazi Germany between 1933 and 1945. This course also focuses on other destructive crimes carried out by Nazi Germany, including the mass murder of the Gypsies and the mentally and physically handicapped. The course will emphasize the nature and significance of the Holocaust and the impact of prejudice, racism, and stereotyping in other societies.

HIS 260 HISTORY OF RUSSIA: TSARISM TO VLADIMIR PUTIN.....3-3-0
This course begins with the brief overview of the Russian state before the 1800s and then proceeds to look at changes in the social, economic and political structure of pre-revolutionary Russia, the formation and break-up of the Soviet Union and the post-Soviet period.

HIS 210 HISTORY OF PENNSYLVANIA..... 3-3-0
A history of the state of Pennsylvania that emphasizes the key role it has played in the history of the nation. Emphasis will be placed on industrial development, cultural contributions, military events, and constitutional issues in which Pennsylvania has had a pivotal role. A regional visit to one historic site is a course requirement.

HIS 101 HISTORY OF WESTERN CIVILIZATION I: ANCIENT, MEDIEVAL, AND EARLY MODERN..... 3-3-0
This course is a survey of the origins of Western civilization starting with prehistoric man and the emergence of agriculture. The course continues with the study of the Ancient Near Eastern Civilizations, Greece and Rome, the Middle Ages and Europe up through the Renaissance and Reformation to roughly the eighteenth century. These civilizations are studied by looking at their economy, religion, politics, art, literature and everyday life.

HIS 190 GLOBAL ISSUES: TRAVEL & HISTORY.....3-3-0
This course focuses on international and global issues in travel as well as its history and ethical implications. The class will also introduce students to the history of travel from ancient times to the present, addressing issues of interconnectedness, interdependence, and inequity among peoples, cultures, and/or nation-states. Inquiry-based learning will be utilized to increase students' knowledge of world geography and international players through the exploration of developed and potential tourist areas. Exploring the history of travel will provide opportunities for students to connect course materials and study the topic from an interdisciplinary perspective. Students will complete a capstone project connecting contemporary issues, as they relate to ethical concerns as well as social, cultural, and economic trends in the business of global travel.

HIS 203H HISTORY OF THE UNITED STATES: TO 1877 HONORS... 3-3-0
This course is a survey of the political, social, economic, and intellectual history of the United States from pre-Columbian Indians through the period of the Civil War and Reconstruction. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original text analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

HIS 219 THE VIETNAM WAR.....3-3-0
This course covers the experience of Americans and Vietnamese, soldiers and civilians in the Vietnam War. It has three parts: 1) the origins of American involvement, 1945 1963; 2) the war America waged on the ground and in the air; 3) the impact of the war on American society and government.

HIS 220 WOMEN IN AMERICA.....3-3-0
This course is a chronological survey of the role of women in American history from the colonial period up to the modern day. It examines the experiences of women from various ethnicities and economic backgrounds. The contributions of women to the political, economic, and social development of the nation will be emphasized. The historiography and theory of the field of women's history will also be a focus.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

HIS 234 ASIAN CIVILIZATION.....3-3-0
A survey of the major civilizations of "monsoon Asia" with the focus on India, China and Japan. This course will emphasize political, economic, social and cultural forces that have shaped Asian civilization. Students will gain a greater appreciation of the differences and similarities between Asian civilization and the rest of the world.

HIS 250 HISTORY OF THE MODERN MIDDLE EAST.....3-3-0
After a brief survey of the Islamic background of the Middle East and the analysis of the rise and decline of the Ottoman Empire, the course focuses on the development of the Middle East since Napoleon?s invasion of Egypt in 1798. Modernization, imperialism, and nationalism are the dominant themes in the history of this region in the nineteenth and twentieth centuries. The national histories of Turkey, Iran, the Arab states, and Israel are examined. Attention is given to the role of the Great Powers of the Middle East.

HIS 213 THE CIVIL WAR & RECONSTRUCTION.....3-3-0
This course covers the period from the election of Lincoln in 1860 to the end of reconstruction in 1877. The military history of the war will be studied in its political and social context. Stress will be given to the revolutionary changes brought about by the War, especially those affecting African-Americans. Causes of the Civil War will be studied and how it evolved into a war against slavery.

HIS 218 HISTORY OF LATIN AMERICA: BLOOD AND EMPIRE.....3-3-0
This course provides a survey of the history of Latin America from pre-Columbian times to the present. Emphasis is placed on the twentieth century. Trends in political, economic, social and cultural development are studied, as well as the relationship between the United States and Latin America.

AMERICAN SIGN LANGUAGE

ASL 101 AMERICAN SIGN LANGUAGE I.....3-3-0
In this introductory course of American sign language, students will develop a fundamental vocabulary and knowledge of grammar structures needed to help them communicate effectively. This course will also introduce students to deaf culture in the United States.

ASL 102 AMERICAN SIGN LANGUAGE II.....3-3-0
In this American Sign Language course students will build on the fundamental vocabulary and knowledge of grammar structures studied in ASL 101. Students will further develop gestural expressive skills needed to help them communicate effectively. This course will also further explore the deaf culture in the United States.
Prerequisites:
ASL 101 - Introduction to American Sign Language I with a minimum grade of C

HUMAN SERVICES

HSW 220 INTRODUCTION TO ADJUNCTIVE THERAPIES.....3-3-0
A survey of adjunctive therapies and activities that enhance the therapeutic process for populations served by human service agencies. Therapeutic modalities include but are not limited to: art, music, movement, dance, poetry, psychodrama and biofeedback.

HSW 155 INTRODUCTION TO AGING.....3-3-0
This introductory course is designed to discuss basic principles and sensitize students to those personal and social forces which impact the lives of older adults in contemporary America. Commonly held attitudes about older persons and the aging process will be examined along with current theories and prominent bodies of knowledge associated with the biological, psychological and sociological aspects of aging. Roles which older adults assume in various settings - community, residential and institutions, as well as the responses of society to older adults will be emphasized.

HSW 202 THEORIES OF INDIVIDUAL COUNSELING.....3-3-0
Professionalization, ethics and the impact of values on the helping process are considered. Special attention is given to evaluation research (accountability), testing and report writing in diverse settings. Students develop their own theory of helping, explain its relationship to existing theories, and demonstrate its application(s).
Prerequisites:
HSW 101 - Introduction to Human Services and the Helping Profession

HSW 203 ASSESSMENT & DOCUMENTATION IN HUMAN SERVICES.....3-3-0
This course is designed to teach students the necessary skills to assess and document client interactions in a human services agency or program. Students will explore the nature of the helping relationship, demonstrate their active listening abilities, learn how to gather information, build treatment plans, and write case notes. Students will also understand case management in a managed care environment, and the legal, ethical and regulatory implications of comprehensive assessment and documentation.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C
HSW 101 - Introduction to Human Services and the Helping Profession with a minimum grade of C

HSW 250 PSYCHOLOGY OF AGING: HELPING SKILLS IN WORKING WITH OLDER ADULTS.....3-3-0
This course is an in-depth exploration of psychological theories and their applications to appreciating and working with older adults. Students will have the opportunity to gain an increased understanding of their own personal development and self knowledge in the context of the life cycle and to explore feelings about the aging process. Classroom experiences that focus on enhancing communications skills will be designed to enable students to translate psychological theories and helping techniques to every day family and job-related encounters with older adults. Open to all majors.
Prerequisites:
HSW 155 - Introduction to Aging or PSY 101 - Introduction to Psychology or SOC 101 - Introduction to Sociology

HSW 254 AGING IN THE UNITED STATES.....3-3-0
This course is an in-depth exploration of the current social issues concerning older adults in U.S. society. Students will examine the social needs which confront all older people and those needs of particular sub-groups of the older population such as the frail elderly, women, and minorities. Emphasis will be placed on reviewing the legislation which has led to the creation of programs and services for meeting the needs of older adults and on analyzing the system of services to detect areas of unmet needs, such as the need for "long-term care." Students will have the opportunity to gain an understanding of techniques of advocacy which can be used on behalf of and in concert with older persons. This course is open to all majors.
Prerequisites:
HSW 155 - Introduction to Aging or PSY 101 - Introduction to Psychology or SOC 101 - Introduction to Sociology

HSW 101 INTRODUCTION TO HUMAN SERVICES AND THE HELPING PROFESSION.....3-3-0
This course is designed to help students explore human services as a generalist human services professional. Emphasis is on historical development, roles of the human service professional, theories of helping, technology, managed care, crisis intervention, international and multicultural issues in human services. Students are encouraged to examine themselves as helpers in the human services profession.

HSW 102 THEORIES OF GROUP COUNSELING.....3-3-0
A survey of therapeutic modalities commonly employed in group settings. Students are expected to carefully analyze the theories presented and to begin developing a basis for their own theory of effective group work with various populations.
Prerequisites:
HSW 101 - Introduction to Human Services and the Helping Profession

HSW 210 PROFESSIONAL DEVELOPMENT IN HUMAN SERVICES 3-3-0
This course is designed to prepare students for the practicum experience through professional self reflection and development. Students will evaluate human service agencies, organizational structures, and funding sources. Students will select a field site, process agency interview, and prepare for supervision in the field. Topics such as self-assessment, document gathering, and certification reviews will be addressed. The development of portfolio management demonstrating interpersonal styles, and program competency will be required. Students must pass this course with a grade of "C" or higher before taking HSW 211.
Prerequisites:
HSW 102 - Theories of Group Counseling or HSW 202 - Theories of individual Counseling
HSW/PSY 203 - Assessment and Documentation in Human Services

HSW 216 ASSESSMENT AND TECHNIQUES FOR CHILDREN AND YOUTH.....3-3-0
This course is designed to develop the knowledge and skills in assessing the risk factors in the current situation of the child and/or adolescent. The course will focus upon the youth's educational social, psychological, emotional and physical environment to determine the level of required intervention. Students will learn the techniques needed to assess and reduce risk factors.
Prerequisites:
HSW 101 - Introduction to Human Services and the Helping Profession

HSW 211 HUMAN SERVICES PRACTICUM.....6-0-14
A course designed to integrate human services theory within a practical milieu. Through supervised clinical experience, the student begins hands-on training in a community agency. Skills focused upon are: intake interviewing, case management, assessment of client/consumer needs and intervention strategies to meet those needs, individual and group counseling, outreach activities, recording procedures, appropriate use of community referral and networking resources, staff relations, and inter-agency communication, evaluating program services and volunteer participation. Two hundred and eighty hours of recorded clinical experience are required in addition to a one and half -hour seminar every other week.
This course is subject to a course fee.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C
HSW 210 - Professional Development in Human Services with a minimum grade of C

HSW 105 SOCIAL POLICY & ETHICS IN HUMAN SERVICES.....3-3-0
This course examines the relationship of social policy, ethics, and the human services field. Students will address ethical dilemmas, particularly as they relate to current and needed social policies on local, state, and national levels. A basic understanding of social welfare theories will assist the student in evaluating, assessing, and advocating for change in both a micro / macro perspective. The Ethical Standards of Human Service Professionals (National Organization for Human Services) will serve as a backbone for students to use in decision-making, assessment of clients and client groups, and promotion of change in a diverse setting.

HSW 130 INTRODUCTION TO YOUTH AND FAMILY SYSTEMS.....3-3-0
This introductory course examines children and youth within the context of their familial role. Emphasis is placed upon non-traditional as well as traditional family systems and the impact that issues such as divorce, substance abuse, child abuse and incarceration has on the various units in the family system.

HSW 205 VOLUNTEER ADMINISTRATION.....3-3-0
This course examines the development and role of volunteerism in a profit-oriented society. Specifically, it is an in-depth exploration of the fundamentals of volunteer organization and management from an administrative perspective. It is designed for those whose work brings them into contact with volunteers, the currently employed volunteer administrator, and the student who will eventually be involved with volunteer management.

HSW 206 HOSPICE: CONCEPTS & SKILLS.....3-3-0
A course designed for those whose work brings them into contact with the dying (and their families) or for anyone who wishes to understand the issue of his/her own mortality in relation to he life cycle. Students will have the opportunity to examine the "hospice without walls" concept, to clarify attitudes toward death and dying, and to explore how such attitude are learned and can be changed. Skills that can be acquired and practiced include: hospice and grief outreach and counseling, administration of cost-effective hospice counseling in the social service agency, and mobilizing support networks for the dying and their families.

HSW 219 THE DRUG AND ALCOHOL TREATMENT PROCESS: AN INTRODUCTION..... 3-3-0
Designed to provide a working knowledge of the helping process as it applies to drug and alcohol counseling, students completing this course should be able to: develop assessment and diagnostic skills; formulate appropriate goals, and treatment plans; improve interviewing and intervention skills with drug/alcohol clients; discuss and compare individual, group, and family treatment approaches; describe the levels of service available to drug/alcohol clients and their families; use AA, AL-ANON and other support groups as treatment allies; appreciate the impact of sex, age, ethnicity, race and religion on the treatment process; and understand the American Psychiatric Association's (DSM V) assessment of substance use disorders, anti-social personalities and depression.

HONORS

HON 203H HONORS EXPERIENCE..... 3-2-1
This service-learning course will enrich Honors Program students' and Phi Theta Kappa members' academic environment with an opportunity to explore and acquire a deeper understanding of significant and timely interdisciplinary questions and civic issues. This course will cover a different subject each semester based on Phi Theta Kappa's "Honors in Action" program, but will consistently utilize student research of a variety of perspectives to collaboratively develop sustainable service projects improving the world around them, encouraging excellence. This course meets the Honors Program's community service and "Honors Experience" requirements. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading, artistic literacy, or original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
Eligible to participate in the Honors Program or be eligible for membership in Phi Theta Kappa

HON 111H SPECIAL TOPICS IN HONORS INTERNATIONAL STUDY..... 3-3-0
This course is an international study abroad experience. This course develops an understanding of a contemporary global culture. Students will explore the basic social and working skills for effectively interacting with people in business and other cross-cultural circumstances. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading, artistic literacy, and original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
Students must have successfully completed or tested out of at least 12 credit hours of College work with a grade point average of 3.5 or better.

HOSPITALITY MANAGEMENT

HOS 170 TOURISM AND HOSPITALITY SALES MANAGEMENT.....3-3-0
The primary objective of the course is to provide a general overview of sales strategies, brand promotion, multi-cultural tourism, sales management discipline, current and future trends and its role in the tourism and hospitality industry. The student will be exposed to the overall nature and dimensions of sales and sales management, as it is relevant to and practiced in the tourism and hospitality industry. Through readings, assignments, and a hands-on project students have the opportunity to practice and demonstrate what they learn during the course.

HOS 222 NATURE, SPORT, AND DESTINATION TOURISM MANAGEMENT..... 3-3-0
This course provides an introduction to the fundamentals of nature, sport, and destination management organizations (DMO). This course examines the principles and theories of nature and sport based tourism and the interrelationships of marketing, finance, destination management organization (DMO) strategies and operations. In addition, this course will use the interconnectedness of nature and sport tourism from historical, economic, environmental, policy, behavioral perspectives, and its connection to concepts, principles, theories, and the business of destination management organizations (DMO).

HOS 160 MEETINGS, CONVENTIONS, AND CONFERENCE MANAGEMENT..... 3-3-0
The meetings, conventions, and conference industry is a major market sector in the tourism and hospitality industry, and is one of the fastest growing sectors within the industry. This course will provide students insight into its elaborate and diverse nature exploring operations, strategic meeting management, accommodations, food and beverage management, technical services, risk management, project management, technology, and the U.S. multicultural meetings market. This culminating experiential course allows students to plan and execute an event.

HOS 251 TOURISM, HOTEL AND CASINO MANAGEMENT.....3-3-0
This course is designed to provide students with an overview of the concepts and practices in the hotel and casino management industry. The student will be exposed to the overall nature and dimensions of front office management, housekeeping management, revenue management, sales, marketing, and business operations in a hotel and casino. Innovation and sustainability trends will be discussed along with hotel and casino management best practices. The culminating course project allows students to plan and design a revenue management and sales strategy in collaboration with a full service hotel.

HOS 111 INTRODUCTION TO HOSPITALITY MANAGEMENT.....3-3-0
This course is designed to introduce the student to the vast variety of career opportunities and career paths within the world's largest and fastest growing industry. Each segment is discussed in terms of its growth potential, trends, unique characteristics, and management responsibilities. Field trips are taken hospitality-industry related operations which may include hotels, restaurants, country clubs, conference centers, caterers and retirement communities.

HOS 260 LEGAL ISSUES IN TOURISM AND HOSPITALITY INDUSTRY..... 3-3-0
This course provides a comprehensive overview of laws and regulations governing the tourism and hospitality industry. Legal implications of civil laws, areas of tort, contract law, labor relations laws, Equal Employment Opportunity laws, Title VII of the Civil Rights Act and the Americans with Disabilities Act, risk management, hospitality law, zoning, and unions will be discussed. Reciprocal obligations and human resources management will explore law and legal relationships that exist in the business context. Issues will be discussed from the points of views of innkeepers, restaurateurs, travel agents, lawyers and event planners.

HOS 297 COOPERATIVE INTERNSHIP IN HOSPITALITY MANAGEMENT..... 3-0-15
This is a work-experience course in which the student is required to work a minimum of 200 hours in a college-approved tourism and hospitality position in the student's area of specialization. The position may be paid or unpaid. **This course is subject to a course fee.**
Prerequisites:
CUL 114/HOS 114 - Food and Beverage Operations
HOS 111 - Introduction to Hospitality Management

HOS 114 FOOD & BEVERAGE OPERATIONS.....3-3-0
This course will introduce students to proper operating procedures for the front of the house and as it relates to other areas of a hospitality establishment. The course stresses the importance of front of the house experiences and as it relates to the overall success of the operation. During the course, students will learn about customer service, front of the house operations, career opportunities, table service styles, various beverage categories, service, and applicable laws.

HOS 190 GLOBAL ISSUES: TRAVEL & HISTORY..... 3-3-0
This course focuses on international and global issues in travel as well as its history and ethical implications. The class will also introduce students to the history of travel from ancient times to the present, addressing issues of interconnectedness, interdependence, and inequity among peoples, cultures, and/or nation-states. Inquiry-based learning will be utilized to increase students' knowledge of world geography and international players through the exploration of developed and potential tourist areas. Exploring the history of travel will provide opportunities for students to connect course materials and study the topic from an interdisciplinary perspective. Students will complete a capstone project connecting contemporary issues, as they relate to ethical concerns as well as social, cultural, and economic trends in the business of global travel.

HOS 210 SUSTAINABLE HOSPITALITY AND TOURISM MANAGEMENT..... 3-3-0
This course provides an introduction to sustainable hospitality and tourism management practices and development. This course examines the principles of sustainable development, water conservation, waste management, marketing, and ecodesign. Students will use strategies to understand sustainability and the financial implications of hospitality and tourism businesses. In addition, this course will provide an overview of ethics, sustainable economics, and corporate social responsibility.

HOS 230 ENTREPRENEURSHIP, PRODUCT, AND CONCEPT DEVELOPMENT IN THE TOURISM INDUSTRY..... 3-3-0
This course provides an introduction to the fundamentals of entrepreneurship and the successful development of tourism products. This course examines the principles and theories of entrepreneurship, life cycles of existing products, and explores the conceptual creation of new products. Using the tourism industry as a blueprint, students will explore entrepreneurship by analyzing market segmentation, conducting yields, profit and loss statements by developing a business plan that could be turned into a new food, beverage, or tourism concept. In addition, this course will provide an overview of new food product development, organization, management, marketing, strategy, commercial feasibility, and law using class lecturers, projects, and case studies.

HOS 270 INNOVATION AND LEADERSHIP IN TOURISM MANAGEMENT..... 3-3-0
This capstone course culminates the theoretical training for students in tourism and hospitality studies. This course provides a solid foundation of knowledge related to tourism innovation while connecting the interrelated elements of marketing, finance, business application software, technological fluency, business communication tools, social issues, operations, problem solving, and how these changes occurring impact the global tourism environment. Students learn by engaging in a series of team based managerial, social, and operational case studies focusing on current and future trends in tourism allowing for thinking "outside the box". Students will learn how to be comfortable with their professional strengths and or opportunities to capitalize on their intellectual potential. Social intelligence will be connected to leadership techniques, allowing students to integrate knowledge from previous tourism and hospitality courses to complete their professional portfolio.
Prerequisites:
HOS 111 - Introduction to Hospitality Management
CUL 114/HOS 114 - Food and Beverage Operations

MEDICAL ASSISTING

MAS 104 HUMAN BODY IN HEALTH AND DISEASE.....3-3-0
This introductory course provides students with the essentials of anatomy, the basic functions of the human body and the effects of disease using a systems approach. The normal structural organization and processes of each body system, common diseases, clinical applications, treatments and diagnostic procedures will be examined.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II

MAS 113 CLINICAL ASSISTING PROCEDURES I.....3-2-2
The course builds a solid foundation in Medical Assisting and introduces students to the clinical procedures commonly performed in a variety of medical offices. This course explores asepsis and infection control, nutrition and wellness, pharmacology and medication administration, and assisting the physician and health care providers. Course specific competency evaluations must be successfully completed by the student. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
HCP 224 - Medical Terminology. May be taken prior or during course.
HCP 100 - Medical Office Technologies and the EHR. May be taken prior or during course.

MAS 114 MEDICAL LAW AND ETHICS.....3-3-0
This course provides the student with a deeper understanding of legal and ethical issues in healthcare. Students explore the legal, ethical and moral dilemmas currently faced by healthcare professionals, and identify issues related to potential legal liability in the workplace.

MAS 121 LABORATORY PROCEDURES IN THE MEDICAL OFFICE 3-2-2
This comprehensive course introduces the student to the purpose, techniques and documentation of diagnostic laboratory procedures commonly performed in the medical office. Subjects covered include general laboratory techniques, phlebotomy, specimen collection, handling and processing, diagnostic testing and performing hematology, chemistry, urinalysis, microbiology and immunology testing. Course specific competency evaluations must be successfully completed by the student. The course will assist the student in developing basic laboratory skills and a firm understanding of the scientific method, enabling students to appreciate the scientific process, and build scientific reasoning and critical thinking skills that are applicable to their career as a health care professional. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
Corequisites:
HCP/MAS/BIO 104 - The Human Body in Health and Disease OR BIO 103 - Introduction to Anatomy and Physiology OR BIO 131 - Human Anatomy and Physiology I AND BIO 132 - Human Anatomy and Physiology II. May be taken prior or during course.
HCP 224 - Medical Terminology. May be taken prior or during course.

MAS 130 MEDICAL ASSISTING PRACTICUM.....6-2-10
This capstone course will serve as the culminating point in preparing for the transition from student to practicing Medical Assistant by providing the student with the opportunity to apply the skills learned in the classroom and laboratory to medical assisting practice in the medical office. This important part of the student's total education includes an opportunity to perform various clinical and administrative procedures at the practicum site. These experiences are then shared in the classroom seminar setting. Students must complete a capstone project and course-specific evaluations. **This course is subject to a course fee.**
Prerequisites:
MAS 123 - Clinical Assisting Procedures II with a minimum grade of C
MAS 123 Clinical Assisting Procedures II with a minimum grade of C
HCP/MAS 121 Laboratory Procedures in the Medical Office with a minimum grade of C
HCP/MAS 117 Medical Office Administration with a minimum grade of C

MAS 117 MEDICAL OFFICE ADMINISTRATION.....4-4-0
This course builds a solid foundation in Medical Office Administrative skills and introduces students to the administrative procedures and business practices commonly performed in the medical office. Emphasis on financial practices, health insurance, reimbursement, therapeutic communication and patient education will help prepare the student for entry level office administration. Course specific competency evaluations must be successfully completed by the student. **This course is subject to a course fee.**
Prerequisites:
REA 011 - Fundamentals of College Reading or ESL/REA 017 - Vocabulary and Reading Comprehension Development II
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
Corequisites:
HCP 224 - Medical Terminology. May be taken prior or during course.
HCP 100 - Medical Office Technologies and the EHR. May be taken prior or during course.
HCP 114 - Medical Law and Ethics. May be taken prior or during course.

MAS 123 CLINICAL ASSISTING PROCEDURES II.....3-2-2
The course continues to build a solid foundation in Medical Assisting and expands knowledge of clinical procedures commonly performed in a variety of medical offices. This course explores anatomy and physiology, medical terminology, common pathology and diseases, diagnostic treatment modalities, and patient care techniques. Course specific competency evaluations must be successfully completed by the student. This course is subject to a course fee. **This course is subject to a course fee.**
Corequisites:
HCP/MAS/BIO 104 - The Human Body in Health and Disease. May be taken prior or during course.
MAS 113 -Medical Assisting- Clinical Assisting Procedures I. May be taken prior or during course.
HCP/MAS 121 Laboratory Procedures in the Medical Office. May be taken prior or during course.
HCP/MAS 117 - Medical Office Administration. May be taken prior or during course.

MATHEMATICS

MAT 100 INTERMEDIATE ALGEBRA.....3-3-0
This intermediate algebra course reviews and extends the material taught in MAT 080 Fundamentals of Arithmetic and MAT 090 Fundamentals of Algebra. It is appropriate for students who have completed an elementary algebra course and will prepare students for MAT 125, MAT 130, MAT 131, MAT 140 and/or MAT 161. Topics include a brief review of introductory algebra, introduction to functions, factoring, algebraic fractions, radicals, fractional exponents, the Pythagorean theorem, functional notation, graphing, quadratic equations, logarithms, systems of linear equations, and word problems applications. A graphing calculator is required. Instruction will be presented using a TI-84+.
Corequisites:
MAT 090 - Fundamentals of Algebra with a minimum grade of C. May be taken prior or during course.

MAT 125 DISCRETE MATHEMATICS.....3-3-0
A course in discrete mathematics with special emphasis on computer science applications. Topics include sets, number systems, the nature of proof, formal logic, functions and relations, combinatorics, recurrence relations, trees and Boolean algebra.
Prerequisites:
CIS 111 Computer Science I: Programming and Concepts with a minimum grade of C
MAT 100 - Intermediate Algebra with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the online course description.

MAT 161 PRECALCULUS I.....4-4-0
A comprehensive precalculus course which extends the material taught in MAT 100. Additional topics include: quadratic and absolute value, inequalities, binomial theorem, sigma notation, conic sections, theory of equations and complex numbers. A graphing calculator is required for class, homework, and testing. Classroom instruction will be presented using a TI-84 Plus.
Prerequisites:
MAT 100 - Intermediate Algebra with a minimum grade of C. Placement score information can be found on the ACT335 document linked to the online course description.

MAT 220 LINEAR ALGEBRA.....4-4-0
A one semester course in linear algebra. Topics include vector spaces, matrices, and linear transformations, eigenvalues and eigenvectors, determinants, function spaces, and applications. It can be taken concurrently with MAT 202 or MAT 223. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-86 or TI-92.
Prerequisites:
MAT 201 - Calculus & Analytic Geometry II with a minimum grade of C

MAT 106 MATH APPLICATIONS.....3-3-0
This course is designed for liberal arts, social science, humanities, secondary education, and communications majors. It stresses mathematical applications from linear programming, probability and statistics, and at least one of the following topics: matrix algebra, game theory, graph theory, mathematics of finance, and the computer with applications. A calculator is required for this course; see instructor. This course does not satisfy the MAT 100 prerequisite requirement for MAT 125, MAT 140 or MAT 161.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C. Placement score information can be found on the ACT335 document linked to the online course description.

MAT 131 INTRODUCTION TO STATISTICS I..... 3-3-0
A basic course designed for students in all fields. Topics include organization of data, measures of central tendency, measures of variation, statistical inference and correlation. This is a self-contained course, or with MAT 132, it is a course with greater depth and applications. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus.
Prerequisites:
MAT 100 Intermediate Algebra or MAT 100B Intermediate Algebra & Review or MAT 104 Foundations of Mathematics II or MAT 106 Math Applications with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the online course description.

MAT 140 FINITE MATHEMATICS FOR BUSINESS..... 3-3-0
A course in finite mathematics with special emphasis on applications to business and related fields. Topics include linear and quadratic equations with applications involving supply, demand, revenue, cost, profit and break-even points; matrices and systems of linear equations; graphing; linear programming; simplex method; mathematics of finance; and model building. Classroom instruction and programs will be presented using a TI-84 Plus.
Prerequisites:
MAT 100 - Intermediate Algebra or MAT 100B - Intermediate Algebra & Review with a minimum grade of C. Placement score information can be found on the ACT335 document linked to the online course description.

MAT 162 PRECALCULUS II.....4-4-0
This is a continuation of MAT 161 including the following topics: exponential and logarithmic functions and trigonometry. The trigonometry topics includes right triangles, functions, graphs, identities, vectors, law of sines, law of cosines, polar coordinates and polar graphing, complex numbers, inverse functions and applications. A graphing calculator is required. Instruction will be presented using a TI-84 Plus.
Prerequisites:
MAT 161 - Precalculus I with a minimum grade of C

MAT 201 CALCULUS & ANALYTIC GEOMETRY II.....4-4-0
This is the second course in the calculus sequence. It is designed primarily for students who will major in mathematics, science, engineering, or business. Topics include differentiation and integration of exponential, logarithmic, trigonometric, and hyperbolic functions, integration techniques, improper integrals, sequences, series, Taylor's formula, L'Hopital's rule, and applications. Instruction and course assignments will include the use of calculators and computers as appropriate to the topic.
Prerequisites:
MAT 190 - Calculus & Analytic Geometry I or MAT 189 - Calculus With a Review of Functions II with a minimum grade of C

MAT 103 FOUNDATIONS OF MATH.....3-3-0
This course is to give the students an understanding of the foundations of math. Topics include sets, logic, number bases and the structure of the number system from naturals to the reals. This course does not satisfy the MAT 100 prerequisite requirement for MAT 125, MAT 131, MAT 140, or MAT 161.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C. Placement score information can be found on the ACT335 document linked to the online course description.

MAT 104 FOUNDATIONS OF MATHEMATICS II..... 3-3-0
This is the second course in the sequence MAT 103, MAT 104. Topics include geometry, measurement, probability, statistics, and problem solving. This course does not satisfy the MAT 100 prerequisite requirement for MAT 125, MAT 140 or MAT 161.
Prerequisites:
MAT 103 - Foundations of Math with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the online course description.

MAT 202 CALCULUS & ANALYTIC GEOMETRY III.....4-4-0
This is a third course in the calculus sequence. It is designed primarily for students who will major in mathematics, science, engineering, or business. Topics include vector analysis, solid analytic geometry, partial derivatives and multiple integrals with applications. Instruction and course assignments will include the use of calculators and computers as appropriate to the topic.
Prerequisites:
MAT 201 - Calculus & Analytic Geometry II with a minimum grade of C

MAT 211 FOUNDATIONS OF MATHEMATICAL PROOF.....3-3-0
This course is designed to introduce students to the foundations of higher mathematics, which includes an introduction to mathematical abstraction and an introduction to the language of mathematical proof. Topics include: logic; the use of quantifiers to assist with logic; set theory; applying appropriate proof techniques; relations and functions, including the Cartesian product and its applications. This course is highly recommended for those students who have not been exposed to mathematical proof and intend to take advanced math courses.
Prerequisites:
MAT 190 - Calculus & Analytic Geometry I with a minimum grade of C
Corequisites:
MAT 201 - Calculus and Analytic Geometry II. May be taken prior or during course.

MAT 223 DIFFERENTIAL EQUATIONS..... 4-4-0
A course primarily in differential equations and related topics. Topics include differential equations of the first order, linear differential equations of higher orders, systems of differential equations, LaPlace transforms, numerical methods, and applications. It can be taken concurrently with MAT 202 or MAT 220. Instruction and course assignments will include the use of calculators and computers as appropriate to the topic.
Prerequisites:
MAT 201 - Calculus & Analytic Geometry II with a minimum grade of C

MAT 080 FUNDAMENTALS OF MATHEMATICS.....0-4-0
A fundamental course in basic mathematical skills with an introduction to algebraic concepts. This course does not offer degree credit. Topics include solving linear equations, graphing principles, literal equations, operations on signed numbers, fractions, decimals, percents, and other arithmetic topics. This precollege level course cannot be used to fulfill a degree requirement, nor is it calculated in a student's Grade Point Average (GPA).
Prerequisites:
Placement into MAT 080 follows a college-approved multiple measures placement method, which may include a placement exam

MAT 090 FUNDAMENTALS OF ALGEBRA.....0-2-0
An introductory course which will prepare students for college level algebra. MAT 090 may be taken as a pre-requisite to or as a corequisite with MAT100. This course does not offer college-level credit. Topics include real numbers, operations between real numbers and their properties, signed numbers and the rules of signs, exponents and powers, fractions, fractional exponents and roots, an introduction to real variables and symbolic algebraic manipulations, analysis of rational expressions and functions, an introduction to the graphical representation of data, linear functions, linear equations, and solving and graphing quadratic equations. MAT 090 is a precollege level course and cannot be used to fulfill a degree requirement, nor is it calculated in a student's Grade Point Average (GPA). A graphing calculator is required. Instruction will be presented using a TI-84+.
Prerequisites:
MAT 080 Fundamentals of Mathematics with a minimum grade of C. Students may also place directly into MAT 090 using a college-approved multiple measures method.

MAT 130 PROBABILITY AND STATISTICS.....4-4-0
A course designed for students in all fields. Topics include organization of data, measures of central tendency, measures of variation, statistical inference, correlation along with some more advanced topics such as analysis of variance and simple/multiple regression. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus.
Prerequisites:
MAT 100 Intermediate Algebra or MAT 100B Intermediate Algebra & Review or MAT 104 Foundations of Mathematics II or MAT 106 Math Applications with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the online course description.

MAT 130H PROBABILITY AND STATISTICS HONORS.....4-4-0
A course designed for students in all fields. Topics include organization of data, measures of central tendency, measures of variation, statistical inference, correlation along with some more advanced topics such as analysis of variance and simple/multiple regression. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original data analysis; forming judgments based on evidence; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.
Prerequisites:
MAT 100 Intermediate Algebra or MAT 100B Intermediate Algebra & Review or MAT 104 Foundations of Mathematics II or MAT 106 Math Applications with a minimum grade of C. Placement score information can be found on the ACT 335 document linked to the online course description.

MAT 132 INTRODUCTION TO STATISTICS II..... 3-3-0
A continuation of MAT 131 with business applications including statistical inference and decision procedures, regression, correlation, time series, quality control and index numbers. A graphing calculator is required for classes, homework and testing. Classroom instruction and programs will be presented using a TI-84 Plus.
Prerequisites:
MAT 131 - Introduction to Statistics I with a minimum grade of C

MAT 142 CALCULUS FOR BUSINESS AND SOCIAL SCIENCE.....3-3-0
A one semester calculus course containing an introduction to differential and integral calculus using algebraic, exponential and logarithmic functions. A graphing calculator is required for class, homework and testing. Classroom instruction and programs will be presented using a TI 84 Plus.
Prerequisites:
MAT 140 - Finite Mathematics for Business with a minimum grade of C

MAT 188 CALCULUS WITH A REVIEW OF FUNCTION I..... 4-4-0
A course primarily designed for students who will major in mathematics, science, engineering, or business. The sequence of courses, MAT 188 and MAT 189, is designed for students who have a good background in functions and trigonometry. MAT 188 and MAT 189 cover similar topics as the sequence MAT 161, MAT 162, and MAT 190 but at a faster pace. Together with MAT 189 the course covers all of the material in MAT 190, Calculus I. MAT 188 covers inequalities, Fundamental Theorem of Algebra, basic trigonometry, Law of Sines and Cosines, limits, differentiation, integration, curve sketching and applications for polynomials and trigonometric functions. A graphing calculator is required for class, homework, and testing. Classroom instruction and programs will be presented using a TI-84 Plus. You must pass both MAT 188 and MAT 189 to transfer credits equivalent to Calculus I. You should not take MAT 188 unless you are planning on taking MAT 189 the next semester.
Prerequisites:
Students must have successfully completed either MAT 100 (or MAT 100B) with a minimum grade of B, or MAT 116 with a minimum grade of C, or have an ABV 116 on the Math Placement test

MAT 189 CALCULUS WITH A REVIEW OF FUNCTIONS II.....4-4-0
This course is a continuation of MAT 188. This course completes the coverage of Calculus I, MAT 190. MAT 189 covers limits, differentiation, integration curve sketching and applications for rational and radical functions. Also covered is an introduction to logarithms, exponential functions, and conic sections. The course concludes with a summary of Calculus I. A graphing calculator is required for class, homework, and testing. Classroom instruction and programs will be presented using a TI-84 Plus.
Prerequisites:
MAT 188 - Calculus With a Review of Function I with a minimum grade of C

MAT 190 CALCULUS & ANALYTIC GEOMETRY I.....4-4-0
A course designed primarily for students who will major in mathematics, science, engineering, or business. Topics include concepts from analytic geometry, limits, differentiation and integration of algebraic and trigonometric functions, curve sketching and applications. Instruction and course assignments will include the use of calculators and computers as appropriate to the topic.
Prerequisites:
Placement recommendation or MAT 161 - Precalculus I and MAT 162 - Precalculus II with a minimum grade of C.

ITALIAN

ITA 101 ELEMENTARY ITALIAN I.....3-3-0
Elementary Italian I is an introduction to the Italian language. Students will learn to master basic communicative situations in Italian at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Italian. In addition, students will learn about the various cultures in Italy.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

ITA 202 INTERMEDIATE ITALIAN II.....3-3-0
Intermediate Italian II is the continuation of Intermediate Italian I. Students will master communicative tasks in Italian at a mid-intermediate level. Learners are at ease when performing uncomplicated tasks in speaking, listening, reading, and writing. In addition, students will identify the linguistic and cultural diversity of Italy through an introduction to Italian literature.
Prerequisites:
ITA 201 - Intermediate Italian I

ITA 201 INTERMEDIATE ITALIAN I.....3-3-0
Intermediate Italian I is the continuation of Elementary Italian II. Students will master uncomplicated communicative tasks in Italian at a low intermediate level. Learners will express personal meaning by combining and recombining what they know and what they hear from their interlocutors into short statements. In addition, students will identify the linguistic and cultural diversity of Italy through an introduction to Italian movies.
Prerequisites:
ITA 102 - Elementary Italian II

ITA 102 ELEMENTARY ITALIAN II.....3-3-0
Elementary Italian II is the continuation of Elementary Italian I. Students will master basic communicative situations in Italian at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in Italian. In addition, students will identify the linguistic and cultural diversity of Italy.
Prerequisites:
ITA 101 - Elementary Italian I

JAPANESE

JPN 202 INTERMEDIATE JAPANESE II.....3-3-0
Intermediate Japanese 202 is a continuation of Intermediate Japanese 201 with extensive practice in building vocabulary and conversational skills at a mid-intermediate level. The recognition of Kanji writing as well as advanced grammar will be covered as the class progresses. The analysis of dialogues and the creation of skits will give the student practice in conversation.
Prerequisites:
JPN 201 - Intermediate Japanese I

JPN 201 INTERMEDIATE JAPANESE I.....3-3-0
This course introduces students to conversational Japanese using the modules of the subjects. Using sentence patterns and common expressions, it stresses communication with Japanese people at a low intermediate level. The conversational skills and vocabulary building will be enhanced by listening to the accompanying AV/Multimedia materials. The students will be encouraged to express his/her own ideas verbally using simple sentence patterns in the class. The study of Kanji is introduced.
Prerequisites:
JPN 102 - Elementary Japanese II

JPN 102 ELEMENTARY JAPANESE II.....3-3-0
Elementary Japanese II is the continuation of Elementary Japanese I. Students will continue to master basic communicative situations in Japanese at a high novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will enhance competence and confidence in expressing in Japanese. In addition, students will identify the linguistic and cultural diversity of Japan.
Prerequisites:
JPN 101 - Elementary Japanese I

JPN 101 ELEMENTARY JAPANESE I.....3-3-0
Elementary Japanese I is an introduction to the Japanese language. Students will learn to master basic communicative situations in Japanese at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Japanese. In addition, students will learn about the various cultures in Japan.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MANAGEMENT

MGT 112H PRINCIPLES OF LEADERSHIP HONORS.....3-3-0
This course emphasizes theories and models of leadership in a variety of organizations. Students will demonstrate mastery and apply effective leadership principles, concepts and skills in various organizational settings. Students will integrate critical thinking and problem solving while examining personal and organizational aspects of management. Engaging in a variety of activities, the following concepts will be explored: creating a vision, understanding philosophies and styles, managing conflict, establishing a constructive culture, and examining ethics. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

MGT 160 CUSTOMER RELATIONSHIP MANAGEMENT.....3-3-0
This course introduces students to major issues and creative problem-solving in managing customer relationships. Important strategies necessary to maintain high quality relationships with customers in a competitive, challenging, and complex environment are developed. Current trends in the industry will be reviewed, and students will develop the ability to interpret these trends and will develop the skills necessary to achieve excellence in managing customer relationships in a dynamic marketplace.

MGT 170 SPORTS AND SOCIETY.....3-3-0
This course introduces students to the dynamic relationships between sports, culture, society and the issues and challenges within this framework. We will look at sports as a microcosm of the larger society and as a field in which to test various sociological theories. The foundation of this course is based on the understanding of approaches and theories within the global perspective of the sport industry. Students will study sports in the context of the economy, diversity, demographics, politics, media, the ethical and legal environments and additional important topics. This knowledge will allow students to think critically about the interlocking of sports and the external environment. Thus, enabling them to create valuable policies and programs in the sport industry. This course keeps pace with industry trends and is aligned with topics outlined by the Commission on Sport Management Accreditation (COSMA).

MGT 110 INTRODUCTION TO BUSINESS.....3-3-0
Students will learn the organization and management of an enterprise, including a study of the characteristics of economic systems, the nature and functions of management, and the operations of the basic organizational functions of finance, marketing, and production.

MGT 298 COOPERATIVE INTERNSHIP IN MANAGEMENT II.....3-0-15
This course consists of continued employment in a college-approved organization to enable the student to gain insight into modern management techniques. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**
Prerequisites:
MGT 198 - Cooperative Internship in Management I and permission of the coordinator

MGT 111 PRINCIPLES OF MANAGEMENT.....3-3-0
In addition to building a solid foundation of management fundamentals, this course introduces students to emerging concepts and issues that are shaping the theory and practice of management. Students discuss quality, productivity, customer satisfaction, global management, social responsibility, ethics, social/cultural perspectives and other topics that students will encounter both on the job and in any advanced studies.

MGT 171 SPORT MANAGEMENT..... 3-3-0
This course will provide students with a strong foundation to become excellent leaders and effective managers in the sport industry. The course is organized around the central management functions-planning, organizing, leading, and controlling. This fundamental approach, will help students apply concepts as sport managers, demonstrate the skills of creative problem solving, strategic planning, and develop the ability to lead, organize, and delegate. This course keeps pace with industry trends and is aligned with topics outlined by the Commission on Sport Management Accreditation (COSMA). The following topics will be explored: team development, communications, motivation, facilities and event management, ethics, legal liability, social responsibility, sports culture, diversity, conflict management.

MGT 131 HUMAN RESOURCES MANAGEMENT.....3-3-0
Students learn personnel procedures and practices. Topics include equal opportunity, personnel planning, employee selection, employee incentive systems, and performance appraisal.

MGT 131H HUMAN RESOURCES MANAGEMENT HONORS.....3-3-0
Students learn personnel procedures and practices. Topics include equal opportunity, personnel planning, employee selection, employee incentive systems, and performance appraisal. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading and original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

MGT 221 SUPERVISION.....3-3-0
In this course students will develop the skills and knowledge necessary to grow into a supervisory position in a business environment. The course will provide the students with the opportunity to integrate the knowledge gained in the basic business courses and to refine the basic supervisory and management skills learned in these courses. The course includes topics relating to the role of the supervisor in the management process in a business environment.
Prerequisites:
MGT 110 - Introduction to Business or MGT 111 - Principles of Management

MGT 295 BUSINESS MANAGEMENT CAPSTONE.....3-3-0
This course provides students with an integrative learning experience, combining their acquired knowledge and skills in accounting, economics, marketing, and management. Students are expected to apply practical understanding and academic theory to demonstrate critical thinking skills. The course is a summative experience that emphasizes business and management competencies in today's global environment. Students will develop mastery in strategic management to successfully provide value in a competitive and dynamic marketplace.
Prerequisites:
MGT 111 - Principles of Management
MKT 111 - Principles of Marketing
ACC 105 - Survey of Accounting
ACC 150 - Legal Environment of Business
OFM 101 - Business Software Essentials
ENG 117 - Writing for Business and Industry

MGT 112 PRINCIPLES OF LEADERSHIP..... 3-3-0
This course emphasizes theories and models of leadership in a variety of organizations. Students will demonstrate mastery and apply effective leadership principles, concepts and skills in various organizational settings. Students will integrate critical thinking and problem solving while examining personal and organizational aspects of management. Engaging in a variety of activities, the following concepts will be explored: creating a vision, understanding philosophies and styles, managing conflict, establishing a constructive culture, and examining ethics.

MGT 114 STRATEGIC ANALYTICS FOR LEADERS.....3-3-0
This course introduces the concept of data analytics and its applicability to organizations. Students will learn how to apply critical thinking skills and analytics to enhance data driven decision making essential to today's leaders. Students will use the latest software to evaluate and apply data to enhance business performance. Students will learn how to organize and interpret data, conduct analysis, and develop visually appealing and informative reports. This course will enhance leadership performance for analytical problem solving and decision making in today's dynamic business environment.

MGT 113 CONFLICT RESOLUTION AND NEGOTIATION..... 3-3-0
This course provides a framework for negotiation skills and conflict resolution approaches for more effective organizational leadership. Students will learn to identify solutions to workplace conflict and develop negotiation skills to create a collaborative environment. Topics emphasized include: reaching practical agreements, achieving objectives, strengthening relationships, and ultimately increasing productivity.

MGT 141 PRINCIPLES OF RISK MANAGEMENT AND INSURANCE 3-3-0
Students learn the fundamentals of risk management and the appropriate application of insurance. The course stresses the nature of risk as well as the purpose and use of insurance in risk management.

MGT 198 COOPERATIVE INTERNSHIP IN MANAGEMENT I.....3-0-15
This course consists of employment in a college-approved organization to enable the student to gain insight into modern management techniques. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**

MGT 210 ETHICAL DECISION MAKING IN BUSINESS.....3-3-0
This course emphasizes the complexities of business decision making within an ethical framework. After identifying the wide variety of ethical issues facing individuals in business and the moral philosophies which can be applied, the course will develop an ethical decision-making framework. Both the role of the individual and of the organization in influencing ethical decision-making will be emphasized as will the impact of cultural influences on international business ethics. Managing ethics will be proposed as an essential part of the function of organizational leaders.
Prerequisites:
MGT 110 - Introduction to Business OR MGT 111 - Principles of Management

MGT 231 PROJECT MANAGEMENT.....3-3-0
This course will introduce students to key aspects of contemporary project management. Through hands-on exercises and case studies, students will learn the project planning process in detail, culminating in the creation of a baseline plan and budget using a state-of-the-art project management tool. Topics addressed will be project scope and objectives, deliverables, milestones, tasks, work breakdown structure, responsibility and authority, project network, critical path analysis, costs, resource allocation, and auditing.
Prerequisites:
CIS 110 - Information Systems for Management with Computer Applications
MGT 111 - Principles of Management

MARKETING

MKT 298 COOPERATIVE INTERNSHIP IN MARKETING II.....3-0-15
This course consists of continued employment in a college-approved organization to enable the student to gain insight into selling and merchandising practices of distributors. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**
Prerequisites:
MKT 198 - Cooperative Internship Marketing I

MKT 172 SPORT MARKETING.....3-3-0
This course provides a foundation in marketing and scholarly theory with the perspectives of experts who have been actively involved in the sport industry. A worldwide range of examples from all levels of sports, the use of market-driven tactics and marketing analytics will teach students how to satisfy the target market and maximize profits. New technologies on enhancing customer relationships through social media, content marketing, ticketing strategies, and eSports are thoroughly discussed. Additional topics include segmenting sports consumers, experiential marketing, product strategy, brand communication campaigns, sponsorship -linked marketing, and more.

MKT 121 PERSONAL SALES MANAGEMENT.....3-3-0
This course focuses on highlighting the sales person as an essential element in providing value to an organization and to the customer. The course emphasizes the importance of securing, building and maintaining long term relationships in sales. This course presents clear and concise information on successful approaches to selling in the contemporary business environment. Students will learn how to manage and add value to the buyer -seller relationship process. Students will learn to apply the model for relationship selling that is used by firms today.

MKT 198 COOPERATIVE INTERNSHIP IN MARKETING I.....3-0-15
This course consists of employment in a college-approved organization to enable the student to gain insight into selling and merchandising practices of distributors. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**

MKT 211 DIGITAL MARKETING.....3-3-0
This course is designed to provide a structured and comprehensive look at the complex and challenging areas of Digital Marketing. Classic marketing principles will be applied to Digital Marketing. Students will learn how to maximize the power of Digital Marketing in the business world and assess the opportunities available with Digital Marketing. Students will develop proficiency in making critical strategic marketing decisions. Students will learn to appreciate the innovation and technology of this growing Marketing media and acquire the knowledge to implement Digital Marketing solutions into marketing strategies.
Prerequisites:
MKT 111 - Principles of Marketing

MKT 111 PRINCIPLES OF MARKETING.....3-3-0
Students will learn the principles of marketing strategy planning, including target market and marketing mix variables with emphasis on key strategy decisions in each area. This course will explore organizational marketing activities including: consumer behavior, marketing research, social/cultural perspectives, legal and ethical issues and environmental influences. The course will also cover: implementation, control, marketing's link with other functional areas and the challenges and opportunities that exist for marketers.

MKT 131 ADVERTISING & PROMOTION.....3-3-0
Students learn the theory and practice of advertising and marketing promotions, including advertising principles and practices plus the integration of other types of marketing promotions. Focus is on the process of advertising, promotions and media working together for strategic and effective Marketing Communications. Emphasis is placed on understanding, identifying, evaluating, selecting and planning the various types of promotions.

MASS MEDIA STUDIES & PRODUCTN

MSP 112 SURVEY OF MASS MEDIA INDUSTRIES IN THE UNITED STATES.....3-2-2
Building on skills and insights obtained in MSP 111, students survey the history and evolution of mass media industries in the United States to achieve a basic understanding of current trends that affect the future of the industry. They analyze and evaluate themes and create media that examines the formative history and current issues related to print, motion picture, sound recording, radio, television, the Internet, games, social media and emerging communication technologies. Projects developed are distributed over class, school and community-based channels. Students are required to research, interview primary and secondary sources, analyze research, write, create and produce media work to build upon their digital portfolio. Students analyze legal, ethical and controversial issues confronting mass media industries. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 111 - Mass Media and Society with a minimum grade of C
Corequisites:
ENG 101 - English Composition I. May be taken prior or during course.

MSP 179 INTRODUCTION TO DIGITAL FILMMAKING.....3-2-2
Students explore the theory and practice of narrative video as an art form, entertainment medium, and a creative communication tool. Students learn about film structure as it relates to story development. Students explore camera features and increase their understanding of lighting, and editing techniques. Students assume below the line roles on a film crew. They collaborate to produce and distribute narrative projects for a diverse audience over student, college and community media. **This course is subject to a course fee.**
Search Keyword: Communication

MSP 210 HISTORY OF FILM I..... 3-2-2
This course introduces students to the history, ideas, and vocabulary of cinema from the beginning of the film industry until the end of World War II. Students learn about the various cinematic styles, genres, and techniques used in filmmaking as an art form. Students view, analyze, and critique films from the beginning of the film industry until the end of WW II. The goal of this course is to teach students how to think and write about early cinema from a historical, cultural, and aesthetic perspective. **This course is subject to a course fee.**
Search Keyword: Communication

Corequisites:
ENG 102 - English Composition II. May be taken prior or during course.

MSP 125 INTRODUCTION TO WRITING FOR BROADCAST NEWS. 3-2-2
This course explores the theory and practice to give students a foundation in the principles and practice of broadcast news reporting and writing. The course teaches students to organize, research, and write coherent news stories for broadcast using a variety of professional news styles. Students analyze written formats and styles used in radio and television newsrooms, choose sound bites, write broadcast news copy, and are introduced to professional information-gathering and interviewing techniques. Students write voiceovers and anchor readers and field packages. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 111 - Mass Media and Society with a minimum grade of C

MSP 170 LIVE PRODUCTION WORKSHOP I..... 1-0-2
Students in this course will gain immediate entry-level hands-on experience producing media content for public distribution. Students will use professional equipment and software to assist in the writing and production of audio and video newscasts; news and human interest reporter packages; narrative stories; and live and recorded event broadcasts. Students will also learn professional procedures, standards, and practices of media industries. **This course is subject to a course fee.**
Search Keyword: Communication

MSP 171 LIVE PRODUCTION WORKSHOP II..... 1-0-2
Students in this course will gain immediate mid-level hands-on experience producing media content for public distribution. Students will use professional equipment and software to assist in the writing and production of newscasts; news and human interest reporter packages; narrative stories; and live and recorded event broadcasts. Students will also learn professional procedures, standards, and practices of media industries. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 170 - Live Production Workshop I

MSP 282 TECHNIQUES OF VIDEO EDITING.....3-2-2
Students develop a critical understanding of the processes, aesthetics and technical theory involved in non-linear editing for narrative filmmaking and news production. Students examine diverse editing styles and ideas through reading and close analysis of a variety of TV and film examples. They learn new skills and editing techniques by working as the assigned editor on individual student and College-based projects. Students apply their understanding of editing workflow, sound design, screen direction, continuity, and pacing to projects distributed to student, College and community based media. **This course is subject to a course fee.**
Search Keyword: Communication

MSP 211 HISTORY OF FILM II.....3-2-2
This course will teach students how to research, analyze, and critique contemporary cinema. Students examine significant aesthetic developments in narrative, documentary, and experimental film history since WWII to gain a better understanding of the artistic, social, economic, and technological developments that helped create specific film movements inside and outside of the Hollywood studio system. The course focuses on individual films and filmmakers of the period. **This course is subject to a course fee.**
Search Keyword: Communication

Corequisites:
ENG 102 - English Composition II. May be taken prior or during course.

MSP 226 SCREENWRITING II.....3-2-2
This class builds on scriptwriting skills introduced in MSP 126 as students develop an increased ability to present their ideas using a variety of methods and techniques of scriptwriting. Students analyze film and television scripts, styles and genres, and develop their understanding of audience as they work to find a writing voice. Students create a treatment, character bible, and script. They explore copyright, registration, employment, and guild issues and are introduced to the business of scriptwriting. During the workshop students read their work and listen to comments and critiques from their peers and faculty. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 126 - Screenwriting I with a minimum grade of C

MSP 107 INTRODUCTION TO VIDEO PRODUCTION AND LITERACY.....3-2-2
Students are introduced to the theory and operation of digital cameras, elementary lighting and basic audio equipment, common professional video production, and filmmaking. After instructors explain the theory of production equipment, students complete assignments in basic equipment operation. The fundamentals of visual storytelling are emphasized. Through demonstrations and hands-on experience, students apply the basics of lighting, exposure, composition, sequencing, and non-linear editing techniques used by professionals in visual narrative storytelling. Students will develop and apply production skills to capture quality images and sound using digital video equipment. Using these skills, they learn to tell stories using video and sound. Projects developed are distributed over student and other community-based media. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 111 - Mass Media and Society with a minimum grade of C, OR SRT 104 - Introduction to Sound Recording Technology with a minimum grade of C, OR THA 105 - Acting I with a minimum grade of C

MSP 126 SCREENWRITING I..... 3-2-2
Students analyze narrative scriptwriting for film and television . Emphasis is placed on the pitch, treatment, and professional formatting . Students apply the foundations of scriptwriting to original and adapted material. Students are encouraged to develop a unique voice by researching, writing, and editing preparatory, and marketing material for completed scripts. Students write scripts to form for film and television that are also used in advertising, public relations, gaming, animation, and narrative drama. **This course is subject to a course fee.**
Search Keyword: Communication

MSP 230 THE MOVIES: MEANINGS & METHODS.....3-2-2
The popular arts of "the movies" is a carefully prepared constructions of sights and sounds. This course focuses on learning to get more enjoyment and meaning from these products of the image industries. The course examines how meaning is created and communicated through film. Basic concepts and techniques in constructing and interrelating visual and aural images will be discussed in light of film and video technology and techniques. **This course is subject to a course fee.**
Search Keyword: Communication

MSP 235 CURRENT ISSUES IN MASS MEDIA.....3-3-0
In this survey course students analyze current issues in mass media by examining existing communications technologies, programming, and business models. They explore current issues related to cable TV, emerging technologies, interactive and satellite technologies, the Internet, fiber-optics, digital audio and video, HDTV, and nanotechnology. Students research topics of interest, analyze personal and business uses of emerging technologies, and examine their implications for the audience, users, producers, and distributors.
Search Keyword: Communication

Prerequisites:
MSP 111 - Mass Media and Society with a minimum grade of C
Corequisites:
ENG 102 - English Composition II. May be taken prior or during course.

MSP 279 DIGITAL FILMMAKING.....3-2-2
Students assume individual roles on a film crew; analyze the theory and practice of narrative video as an art form, entertainment medium, and a creative communication tool; learn about film structure as it relates to story development; use advanced camera features and increase their understanding of more advanced lighting and editing techniques; and collaborate to produce and distribute narrative projects for a diverse audience over student, College, and community-based media. **This course is subject to a course fee.**
Search Keyword: Communication

MSP 111 MASS MEDIA AND SOCIETY.....3-2-2
Students learn to access, analyze, evaluate and create media and are introduced to the basic building blocks of storytelling and journalism. They identify, research, write, and produce aural and visual packages about key media issues based on their understanding and interpretation of the issues that are then distributed over class, college and community based channels. By doing so they gain an understanding of the media saturated world and the aesthetic, cultural, economic, and political forces that guide the creation and distribution of media messages. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II with a minimum grade of C

MSP 169 INTRODUCTION TO ELECTRONIC JOURNALISM.....3-2-2
This course introduces the basic building blocks of electronic journalism. It builds on basic broadcast writing skills and explains how professionals in mass media tell stories using digital technology. Students explore the reporter's role and the technology involved in news reporting. Students will apply their skills and develop stories, edit words, and produce both the pictures and sound as they prepare their stories and news packages for electronic distribution to a diverse audience over college, student, and community-based media. Students gain a clear understanding of the principles and professional practices of television news production and learn to critically evaluate the ethics and controversies in unbiased storytelling. **This course is subject to a course fee.**
Search Keyword: Communication

MSP 270 LIVE PRODUCTION WORKSHOP III..... 1-0-2
Students in this course will gain immediate supervisory-level hands-on experience producing media content for public distribution. Students will use professional equipment and software to supervise the production of newscasts; news and human interest reporter packages; narrative stories; and live and recorded event broadcasts. Students will also learn professional procedures, standards, and practices of media industries. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 170 - Live Production Workshop I
MSP 171 - Live Production Workshop II

MSP 200 ETHICS, RESPONSIBILITY, MASS MEDIA AND THE LAW 3-3-0
Students examine and analyze mass media through case studies and commentaries that focus on a wide spectrum of historical and contemporary legal and ethical issues faced by media practitioners in broadcasting, advertising, public relations, publishing, and filmmaking. The course builds on information learned in MSP 111 to provide a foundation for the theoretical principles of media ethics and the legal issues surrounding mass media, journalism, and content distribution.
Search Keyword: Communication

Prerequisites:
MSP 111 - Mass Media and Society with a minimum grade of C
Corequisites:
ENG 102 - English Composition II. May be taken prior or during course.

MSP 278 VIDEO PRODUCTION II.....3-2-2
This course reinforces basic video and film production skills, while the student is introduced to more advanced video and film production techniques. Emphasis is placed on the procedures and processes of preparing for and carrying out a documentary or narrative shoot. Students act as producers-directors. They pitch stories, write treatments and scripts, evaluate the role of the director and producer, produce a one-minute, three-minute, and five-minute project, and submit production books for review. Students individually produce these projects using professional production equipment and techniques. They are faculty and peer reviewed, evaluated, and presented as productions ready for distribution over various student, College, and community-based media. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 107 - Introduction to Video Production and Literacy with a minimum grade of C
SRT 104 - Introduction to Sound Recording Technology with a minimum grade of C

MSP 291 MASS MEDIA CAPSTONE.....3-2-2
In this course, students work collaboratively, discuss, conceive, create and produce a body of work that displays the culmination of their knowledge, experience, and writing and production skills. Students develop advanced skills in scripting, journalism, writing, planning, organizing and executing media projects from inception to completion. Students work as producers and directors and lead a production crew on media packages. At the end of the course, students design, organize and complete a portfolio, including a resume, cover letter, personal essays and all professional-level media work. Students also practice mock job placement interviews. **This course is subject to a course fee.**
Search Keyword: Communication

Prerequisites:
MSP 107 - Introduction to Video Production and Literacy with minimum grade of C OR
MSP 235 - Current Issues in Mass Media with minimum grade of C

MEDICAL LAB TECH

MLT 123 IMMUNOHEMATOLOGY LECTURE.....2-2-0
Comprehensive course in fundamentals of theory and practice in blood banking, including blood group systems, antibody detection and identification, compatibility testing, donor selection and processing, component therapy, and transfusion reactions.
Prerequisites:
MLT 110 - Introduction for the Medical Laboratory Technician with a minimum grade of C

MLT 124 IMMUNOHEMATOLOGY LABORATORY.....1-0-3
The student develops proficiency in basic laboratory procedures for the blood bank, including specimen collection and handling, blood typing, neonatal testing, antibody screening and identification and compatibility testing. **This course is subject to a course fee.**
Prerequisites:
MLT 110 - Introduction for the Medical Laboratory Technician with a minimum grade of C

MLT 125 HEMATOLOGY LECTURE..... 2-2-0
Comprehensive course in the fundamentals of theory and practice in clinical hematology and hemostatis, including hematopoiesis of red and white cells, cell function, correlation of test results with pathophysiology, and the principles of routine analyses and instrumentation.
Prerequisites:
MLT 110 - Introduction for the Medical Laboratory Technician with a minimum grade of C
BIO 130 - Introductory Anatomy and Physiology with a minimum grade of C
CHE 131 - Chemistry for Technology I with a minimum grade of C

MLT 126 HEMATOLOGY LABORATORY.....1-0-3
Students develop proficiency in basic laboratory procedures in hematology and hemostasis, including complete blood counts, platelet counts, differentials, basic coagulation tests, cell counts, and specimen collection and handling. Instrumentation is introduced. **This course is subject to a course fee.**
Prerequisites:
MLT 110 - Introduction for the Medical Laboratory Technician with a minimum grade of C
BIO 130 - Introductory Anatomy and Physiology with a minimum grade of C
CHE 131 - Chemistry for Technology I with a minimum grade of C

MLT 233 CLINICAL CHEMISTRY LECTURE.....3-3-0
A comprehensive course emphasizing the principles and procedures of routine clinical chemistry analyses, including instrumentation, correlation of results with pathophysiology, quality control, toxicology and urinalysis.
Prerequisites:
MLT 110 - Introduction for the Medical Laboratory Technician with a minimum grade of C
BIO 130 - Introductory Anatomy and Physiology with a minimum grade of C
CHE 132 - Chemistry for Technology II with a minimum grade of C

MLT 235 CLINICAL PRACTICUM IN MLT I.....3-0-12
The student applies basic skills learned on campus to three clinical areas: blood bank, hematology and microbiology. Students spend 12 hours per week for 4 weeks in each clinical area at an off-campus clinical site, performing routine tests under supervision. **This course is subject to a course fee.**
Prerequisites:
MLT 123 - Immunohematology Lecture with a minimum grade of C
BIO 141 - Clinical Microbiology I with a minimum grade of C
MLT 124 - Immunohematology Laboratory with a minimum grade of C
MLT 125 - Hematology Lecture with a minimum grade of|C
MLT 126 - Hematology Laboratory with a minimum grade of C

MLT 245 CLINICAL PRACTICUM IN MLT II.....6-0-24
This course is a structured practical experience at a clinical site. The student spends 24 hours per week for three weeks at an off-campus laboratory in each of the following areas: blood bank, hematology/ coagulation/ urinalysis, microbiology/serology, and chemistry. Emphasis is on supervised performance of routine tests, efficiency, operation of instrumentation and development of professional traits. The student will participate on a blood collection team and tour several off-campus enrichment sites. **This course is subject to a course fee.**
Prerequisites:
MLT 233 - Clinical Chemistry Lecture with a minimum grade of C
BIO 241 - Clinical Microbiology II with a minimum grade of C
MLT 234 - Clinical Chemistry Laboratory with a minimum grade of C
MLT 235 - Clinical Practicum in MLT I with a minimum grade of C

MLT 234 CLINICAL CHEMISTRY LABORATORY..... 2-0-6
The student develops proficiency in basic laboratory analyses in chemistry (including urinalysis and body fluids). Emphasis is on frequently performed tests, spectrophotometry, manual procedures, developing organizational skills and quality control. Instrumentation is introduced. **This course is subject to a course fee.**
Prerequisites:
MLT 110 - Introduction for the Medical Laboratory Technician with a minimum grade of C
BIO 130 - Introductory Anatomy and Physiology with a minimum grade of C
CHE 132 - Chemistry for Technology II with a minimum grade of C

MLT 244 PROFESSIONAL ISSUES IN MEDICAL LAB. TECH.....2-2-0
This course is designed for the second year clinical MLT student. It is intended to introduce the student to non-clinical MLT related issues. It explores topics such as health care delivery systems, managed care approaches to reimbursement issues, health care finance, laboratory information systems, professional communication skills, professional documentation and legal-ethical questions. The student explores some of the many challenges facing the MLT profession.
Prerequisites:
MLT 235 - Clinical Practicum in MLT I
Corequisites:
MLT 245 - Clinical Practicum in MLT II

MLT 246 MLT SEMINAR.....1-1-0
A capstone course with a variety of formats covering topics such as professional issues and job-seeking skills. The student will make oral case study presentations and participate in a group project.
Prerequisites:
MLT 233 - Clinical Chemistry Lecture with a minimum grade of C
BIO 241 - Clinical Microbiology II with a minimum grade of C
MLT 234 - Clinical Chemistry Laboratory with a minimum grade of C
MLT 235 - Clinical Practicum in MLT I with a minimum grade of C

MLT 106 PHLEBOTOMY.....4-2-8
This is a comprehensive, one-semester AMT-approved course in the fundamentals and practice of phlebotomy (blood specimen collection). Lecture topics include venipuncture, capillary collection, safety, medical terminology, orientation to the clinical laboratory and health care, and specimen handling and processing. Students spend 100 hours in a hospital laboratory practicing blood collection techniques under supervision. Upon completion of the course, students are eligible to sit for national certification examinations and may seek employment as phlebotomists. Additionally, students are certified in American Heart Association Adult Cardiopulmonary Resuscitation (CPR). **This course is subject to a course fee.**
Prerequisites:
Final High School transcript with graduation date or equivalent on file at the College.

MLT 110 INTRODUCTION FOR THE MEDICAL LABORATORY TECHNICIAN..... 4-2-6
This course introduces the student to varied aspects of Medical Laboratory Technician careers. The course is a combination of classroom and laboratory experiences. Subjects covered include general laboratory techniques, safety, professional issues, an introduction to the role of computers in the laboratory setting, and some basic concepts and analyses from each of the major areas of the medical laboratory. **This course is subject to a course fee.**
Prerequisites:
Medical Laboratory Technician Selective Admissions Criteria and Admission into the Program and MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years

MUSIC

MUS 110 MUSIC APPRECIATION.....3-3-0
Music Appreciation is a chronological survey of Western music from classical antiquity through the 20th century. Throughout the course, music will be examined for its own intrinsic characteristics in addition to being used as a means for achieving a greater understanding the society, politics, philosophies, and aesthetics of each historical period. Whenever possible, relationships between the music of Western culture and the music of other world cultures will be examined. In addition to the in-class activities, every student may be required to attend a live concert (approved by the instructor) and, following specific guidelines, prepare a written review of that concert experience.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 120 MUSIC FUNDAMENTALS.....3-3-0
A beginning course in music fundamentals for students with little or no musical background, or a review for students in need of additional preparation for advanced studies. Knowledge of notation, intervals, rhythm, melody, and harmony will be developed, as well as sight singing and elementary ear training skills.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 010 - Fundamentals of Arithmetic, or MAT 010B - Review of the Fundamentals of Arithmetic
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 150 GUITAR CLASS I.....1-1-2
Guitar Class is a course designed to establish a basic understanding of the guitar as an accompanying and solo instrument. Student is responsible for providing their own Classical (nylon string) or Acoustic (steel string) guitar. Electric guitars are not acceptable. Students may choose to purchase or rent the appropriate instrument. This course will enhance pre-existing skills on the guitar, while providing essential rudiments for those who enroll as beginners. Students will learn or improve their knowledge of standard musical notation as it applies to guitar repertory. Students will be introduced to the fundamental techniques of guitar playing, including strumming and finger-style techniques. Through repertory study students will also learn about the history and repertory of the guitar within both western and other cultures. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 160 JAZZ LAB BAND I.....1-0-3
Jazz Lab Band I is an entry-level course in jazz performance open to players of woodwinds, brass, piano, guitar, bass, and percussion. Students will develop basic foundation skills as jazz soloists and ensemble players. Repertoire will vary each semester based on the strengths, weaknesses, and pedagogical needs of the ensemble. Students will be required to provide their own instrument (a standard drum set, bass and guitar amplifier, keyboard, and keyboard amplifier will be provided). This course is open to all students who possess a basic ability to play their instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**

MUS 181P APPLIED MUSIC LESSONS II - PIANO.....1-1-0
Through this course, credit is earned for private instruction on the piano. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 180P - Applied Music Lessons I - Piano

MUS 183B APPLIED MUSIC LESSONS IV - BASS GUITAR..... 1-1-0
Through this course, credit is earned for private instruction on bass guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 182B - Applied Music Lessons III - Bass Guitar

MUS 222 MUSIC THEORY II..... 3-3-0
Directed to students with previous experience in musical analysis (phrase/chord identification) and harmony (four-voice/keyboard style), this course will focus on melody harmonization, form and analysis, modal harmony, and modulation. An introduction to instrumentation and composition will be included.
Prerequisites:
MUS 221 - Music Theory I

MUS 135 COLLEGE CHOIR III.....1-0-3
A human performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. This course is open to all students who possess a basic ability to match pitch. The ability to read music is not required, but some basic understanding of musical notation is helpful. Coursework will include notation reading development. Students will be evaluated in the first class to determine voice section and advised as to likelihood of success in course. **This course is subject to a course fee.**

MUS 137 THE LANGUAGE OF DIGITAL MEDIA..... 3-2-2
This course introduces students to the vocabulary, tools and fundamental techniques of manipulating digital audio and video content. Computer systems make it accessible for new users to take audio and digital information as input, to combine it using custom rules they develop and to produce new kinds of sounds, songs and interactive videos. **This course is subject to a course fee.**

MUS 161 JAZZ LAB BAND II.....1-0-3
Jazz Lab Band II is an entry-level course in jazz performance open to players of woodwinds, brass, piano, guitar, bass, and percussion. Students will develop basic foundation skills as jazz soloists and ensemble players. Repertoire will vary each semester based on the strengths, weaknesses, and pedagogical needs of the ensemble. Students will be required to provide their own instrument (a standard drum set, bass and guitar amplifier, keyboard, and keyboard amplifier will be provided). This course is open to all students who possess a basic ability to play their instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**

MUS 180G APPLIED MUSIC LESSONS I - GUITAR..... 1-1-0
Through this course, credit is earned for private instruction on guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**

MUS 182B APPLIED MUSIC LESSONS III - BASS GUITAR.....1-1-0
Through this course, credit is earned for private instruction on bass guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 181B - Applied Music Lessons II - Bass Guitar

MUS 183G APPLIED MUSIC LESSONS IV - GUITAR.....1-1-0
Through this course, credit is earned for private instruction on guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 182G - Applied Music Lessons III - Guitar

MUS 183V APPLIED MUSIC LESSONS IV - VOICE..... 1-1-0
Through this course, credit is earned for private voice instruction. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 182V - Applied Music Lessons III - Voice

MUS 190 CHAMBER STRINGS I..... 1-1-2
Chamber Strings I is a performance course for students who want the opportunity to participate in an orchestral strings setting. The course focuses on developing technique and breadth of repertoire for string (violin, viola, cello, bass) students. This course is open to all students who possess a basic ability to play an instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**

MUS 141 INTERMEDIATE DIGITAL MUSIC TECHNOLOGY.....3-3-0
This course is a continuation of studies begun in MUS 140 and will focus on Music Technology, Music Composition, and their application to video production, film scoring and sound-tracking. Students learn how to score for film and digital images, synchronize multimedia and create a resulting DVD or Streaming Files of their own design.
Prerequisites:
MUS 140 - Introduction to Digital Music Technology

MUS 180B APPLIED MUSIC LESSONS I - BASS GUITAR.....1-1-0
Through this course, credit is earned for private instruction on bass guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**

MUS 181B APPLIED MUSIC LESSONS II - BASS GUITAR.....1-1-0
Through this course, credit is earned for private instruction on bass guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 180B - Applied Music Lessons I - Bass Guitar

MUS 181I APPLIED MUSIC LESSONS II - INSTRUMENTAL.....1-1-0
Through this course, credit is earned for private instruction on the student's chosen instrument. Lessons are generally available for various band and orchestral instruments. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 180I - Applied Music Lessons I - Instrumental

MUS 182I APPLIED MUSIC LESSONS III - INSTRUMENTAL.....1-1-0
Through this course, credit is earned for private instruction on the student's chosen instrument. Lessons are generally available for various band and orchestral instruments. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 181I - Applied Music Lessons II - Instrumental

MUS 208 WESTERN MUSIC HISTORY 1: MEDIEVAL TO BAROQUE.....
An exploration of the music and culture of Western civilization from ancient times to 1750. Students will study both the sacred and secular music of the Medieval, Renaissance, and Baroque periods, including (but not limited to) Gregorian chant, Troubadour songs, Madrigals, Motets, Masses, monody, opera, oratorio, cantata, suite, sonata, and concerto. Each musical genre will be examined on the basis of its intrinsic characteristics as well as in connection with the aesthetic, social, philosophical, political, and economic environment in which it was created. Students will be expected to have a basic understanding of standard musical notation.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 209 WESTERN MUSIC HISTORY 2: CLASSICAL TO CONTEMPORARY.....
An exploration of the music and culture of Western civilization from 1750 to the present, with an emphasis on the Western Art tradition. Students will study both the sacred and secular music of these eras including (but not limited to) opera, church music, song, symphony, sonata, concerto, and chamber music. The music and careers of several composers will be examined in some detail. Musical works will be examined on the basis of their intrinsic characteristics as well as in connection with the aesthetic, social, philosophical, political, and economic environment in which they were created. Students will be expected to have a basic understanding of standard musical notation.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 232 AURAL THEORY 2..... 3-3-0
Aural Theory 2 is for students who wish to continue developing their ear training and musicianship skills. The course is designed to prepare students to be successful as music or music education majors, or to hone musicianship skills for non-majors. Individual and group classroom activities and computer-assisted drills will be used to develop the student's aural skills with rhythmic, melodic, and harmonic materials. Previous experience in sight singing and dictation is required.
Prerequisites:
MUS 231 - Aural Theory 1 with a minimum grade of C

MUS 114 WORLD MUSIC CULTURES: SOUND, SETTING, SI..... 3-3-0
World Music Cultures: Sound, Setting, and Significance is an entry-level course in the study of world music. Music will be used as a framework to understand and challenge conventions related to politics, gender, race, sexuality, class, ethnicity, and identity in select geographic locales. This course is designed to study music's meaning, role, function, and importance in different societies. World musics will be studied for their musical characteristics and for the insights they convey regarding culture. Students will also be introduced to the discipline of Ethnomusicology. As a term project, each student may be required to visit and document a local musical culture selected by the student and approved by the instructor.

MUS 136 COLLEGE CHOIR IV..... 1-0-3
A human performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. This course is open to all students who possess a basic ability to match pitch. The ability to read music is not required, but some basic understanding of musical notation is helpful. Coursework will include notation reading development. Students will be evaluated in the first class to determine voice section and advised as to likelihood of success in course. **This course is subject to a course fee.**

MUS 171 PIANO CLASS II.....1-1-2
The second in a series of four classes designed to give students a complete orientation to keyboard skills. Piano Class 2 continues the studies begun in Piano Class 1. Students can begin with Piano Class 2 if they pass the level 1 piano proficiency exam. To provide for the proper level of individual attention, the class size will be limited to 16. **This course is subject to a course fee.**
Prerequisites:
MUS 170 - Piano Class 1, or success on the Level 1 piano proficiency exam

MUS 172 PIANO CLASS 3.....1-1-2
The third in a series of four classes designed to give students a complete orientation to keyboard skills. Piano Class 3 continues the studies begun in Piano Class 2. Students can begin with Piano Class 3 if they pass the level 2 piano proficiency exam. To provide for the proper level of individual attention, the class size will be limited to 16. **This course is subject to a course fee.**
Prerequisites:
MUS 171 - Piano Class II, or have a Level 2 on the piano proficiency exam

MUS 180I APPLIED MUSIC LESSONS I - INSTRUMENTAL.....1-1-0
Through this course, credit is earned for private instruction on the student's chosen instrument. Lessons are generally available various band and orchestral instruments. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**

MUS 180P APPLIED MUSIC LESSONS I - PIANO.....1-1-0
Through this course, credit is earned for private instruction on piano. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**

MUS 181G APPLIED MUSIC LESSONS II - GUITAR..... 1-1-0
Through this course, credit is earned for private instruction on guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 180G - Applied Music Lessons I - Guitar

MUS 116 JAZZ AROUND THE WORLD.....
Jazz around the World explores the rich history and international influence of jazz. The course traces jazz's African American origins in New Orleans to its impact on a global scale to foster an appreciation for, and awareness of, the diverse cultural forces that have contributed to the development of jazz in the United States and abroad. The class will examine the social, political, artistic, and cultural contexts that shaped jazz and were, in turn, shaped by jazz.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 133 COLLEGE CHOIR I.....1-0-3
A human performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. This course is open to all students who possess a basic ability to match pitch. The ability to read music is not required, but some basic understanding of musical notation is helpful. Coursework will include notation reading development. Students will be evaluated in the first class to determine voice section and advised as to likelihood of success in course. **This course is subject to a course fee.**

MUS 140 INTRODUCTION TO DIGITAL MUSIC TECHNOLOGY.....3-3-0
Introduction to Digital Music Technology is an entry-level course in modern music production. Students will study the nature of musical sound and the relationship between digital and analog sound processing. Students will also receive an introduction to the basics of MIDI, the fundamental computer music language. Through hands-on projects, students will learn about the various tools of modern audio production with an emphasis on digital tools including synthesizers, midi controllers, sequencers, mixers, effects generators and more. The students will prepare a final project that will demonstrate familiarity with these devices and an understanding of aesthetic choices associated with their use.
Corequisites:
MUS 120 - Music Fundamentals with a minimum grade of C. May be taken prior or during course.

MUS 151 GUITAR CLASS 2.....1-1-2
Guitar Class 2 is a course designed to continue to develop skills introduced in Guitar Class 1. The course is also open to students who can demonstrate fluency with the guitar comparable to that achieved in Guitar Class 1. Students will expand their knowledge of standard musical notation as it applies to guitar repertory. Students will be introduced to the more advanced techniques of guitar playing, including strumming and finger-style techniques. Through repertory study students will also learn about the history and repertory of the guitar within both western and other cultures. **This course is subject to a course fee.**
Prerequisites:
MUS 150 - Guitar Class I with a minimum grade of C

MUS 170 PIANO CLASS I.....1-1-2
The first in a series of four classes designed to give students a complete orientation to keyboard skills. Piano Class 1 is ideal for those with little or no previous piano study. Students may begin their studies in higher level classes if they pass the prescribed proficiency test. To provide for the proper level of individual attention, the class size will be limited to 16. **This course is subject to a course fee.**
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 180V APPLIED MUSIC LESSONS I - VOICE.....1-1-0
Through this course, credit is earned for private voice instruction. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**

MUS 181V APPLIED MUSIC LESSONS II - VOICE.....1-1-0
Through this course, credit is earned for private voice instruction. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 180V - Applied Music Lessons I - Voice

MUS 182P APPLIED MUSIC LESSONS III - PIANO.....1-1-0
Through this course, credit is earned for private instruction on piano. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 181P - Applied Music Lessons II - Piano

MUS 192 CHAMBER STRINGS III..... 1-1-2
Chamber Strings III is a performance course for students who want the opportunity to participate in an orchestral strings setting. The course focuses on developing technique and breadth of repertoire for string (violin, viola, cello, bass) students. This course is open to all students who possess a basic ability to play an instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**
Prerequisites:
MUS 191 - Chamber Strings II

MUS 221 MUSIC THEORY I.....3-3-0
For students with some musical background who wish to expand their understanding of music theory. Emphasis will be on the study of Western music harmonic practices of the 18th and 19th centuries. The course will concentrate on musical analysis (melodic, harmonic and formal) and creative application of the concepts studied. Throughout the course, both technical and aesthetic considerations will be given equal attention. Students will also research a composer of choice from the above mentioned time period and prepare a properly documented presentation on that composer's life and musical style. A working knowledge of musical symbols and notation is required.
Prerequisites:
MUS 120 - Music Fundamentals with a minimum grade of C

MUS 240 THE ART AND BUSINESS OF SONGWRITING..... 3-3-0
The Art and Business of Songwriting is an elective course which teaches the art of musical composition with an emphasis on the genre of contemporary song. It is designed for the student with some knowledge of or background in the basics of music who wishes to apply that knowledge to the creation of music in contemporary popular genres. Students will explore the various musical forms employed by songwriters and apply them to their own compositional projects. The course provides an overview of the historical development of the art of popular song in Western culture, exploring in particular the significant contributions made by America's immigrant and African-American populations. Students will also examine the business of songwriting and its place in the overall music industry.
Prerequisites:
MUS 120 - Music Fundamentals with a minimum grade of C

MUS 183I APPLIED MUSIC LESSONS IV - INSTRUMENTAL..... 1-1-0
Through this course, credit is earned for private instruction on the student's chosen instrument. Lessons are generally available for various band and orchestral instruments. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 182I - Applied Music Lessons III - Instrumental

MUS 241 THE BUSINESS OF MUSIC..... 3-3-0
The Business of Music will provide students with an overview of the current state of the Music Industry. Students will also acquire set of skills needed to pursue a career in that industry. Topics covered will include music business career opportunities, marketing concepts, management skills and promotion. Throughout the semester, the students will explore various professions in the music field and receive an introduction to music publishing, concert production and touring, management, merchandising and recording, public relations, radio promotion, brick and mortar and internet distribution, merchandising, multimedia advertising, and budgeting.
Prerequisites:
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

MUS 134 COLLEGE CHOIR II.....1-0-3
A human performance course in which students participate in the preparation and production of a program of mixed choral ensemble music. This course is open to all students who possess a basic ability to match pitch. The ability to read music is not required, but some basic understanding of musical notation is helpful. Coursework will include notation reading development. Students will be evaluated in the first class to determine voice section and advised as to likelihood of success in course. **This course is subject to a course fee.**

MUS 162 JAZZ LAB BAND III.....1-0-3
Jazz Lab Band III is an entry-level course in jazz performance open to players of woodwinds, brass, piano, guitar, bass, and percussion. Students will develop basic foundation skills as jazz soloists and ensemble players. Repertoire will vary each semester based on the strengths, weaknesses, and pedagogical needs of the ensemble. Students will be required to provide their own instrument (a standard drum set, bass and guitar amplifier, keyboard, and keyboard amplifier will be provided). This course is open to all students who possess a basic ability to play their instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**

MUS 163 JAZZ LAB BAND IV..... 1-0-3
Jazz Lab Band IV is an entry-level course in jazz performance open to players of woodwinds, brass, piano, guitar, bass, and percussion. Students will develop basic foundation skills as jazz soloists and ensemble players. Repertoire will vary each semester based on the strengths, weaknesses, and pedagogical needs of the ensemble. Students will be required to provide their own instrument (a standard drum set, bass and guitar amplifier, keyboard, and keyboard amplifier will be provided). This course is open to all students who possess a basic ability to play their instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**

MUS 182G APPLIED MUSIC LESSONS III - GUITAR..... 1-1-0
Through this course, credit is earned for private instruction on guitar. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 181G - Applied Music Lessons II - Guitar

MUS 182V APPLIED MUSIC LESSONS III - VOICE.....1-1-0
Through this course, credit is earned for private voice instruction. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 181V - Applied Music Lessons II - Voice

MUS 183P APPLIED MUSIC LESSONS IV - PIANO..... 1-1-0
Through this course, credit is earned for private instruction on piano. Check with the department for current availability. Open by permission of the individual instructor. **This course is subject to a course fee.**
Prerequisites:
MUS 182P - Applied Music Lessons III - Piano

MUS 191 CHAMBER STRINGS II..... 1-1-2
Chamber Strings II is a performance course for students who want the opportunity to participate in an orchestral strings setting. The course focuses on developing technique and breadth of repertoire for string (violin, viola, cello, bass) students. This course is open to all students who possess a basic ability to play an instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**
Prerequisites:
MUS 190 - Chamber Strings I

MUS 193 CHAMBER STRINGS IV.....1-1-2
Chamber Strings IV is a performance course for students who want the opportunity to participate in an orchestral strings setting. The course focuses on developing technique and breadth of repertoire for string (violin, viola, cello, bass) students. This course is open to all students who possess a basic ability to play an instrument. The ability to read music is required. Students will be evaluated in the first class, and those who are not prepared for ensemble work will be advised to withdraw. **This course is subject to a course fee.**
Prerequisites:
MUS 192 - Chamber Strings III

MUS 231 AURAL THEORY 1..... 3-3-0
Aural Theory 1 is for students with some musical background who wish to develop their ear training and musicianship skills. The course is designed to prepare students to be successful as music or music education majors, or to hone musicianship skills for non majors. Individual and group classroom activities and computer-assisted drills will be used to develop the student's aural skills with rhythmic, melodic, and harmonic materials. A working knowledge of musical symbols and notation is required. Students are encouraged to enroll simultaneously in MUS 221 (Music Theory 1).
Prerequisites:
MUS 120 - Music Fundamentals with a minimum grade of C
MUS 221 - Music Theory I (Recommended)

NURSING

NUR 108 INTRODUCTION TO CONCEPTS OF NURSING..... 2-2-0
This course introduces the student to concepts of nursing providing the foundation for professional nursing practice and the framework for the nursing program. The concepts of nursing reflect safe, client-centered care, which are met through teamwork and collaboration among health care disciplines. Emphasis is placed on understanding the concepts of nursing applied to professional nursing practice. This is a non-clinical course.
Prerequisites:
Final High School transcript with graduation date or equivalent on file at the College.
OPTION 1: TEAS Reading Comprehension score of 75% or higher, TEAS Total Composite score of 75% or higher, AND placement into or completion of BIO 131 - Anatomy and Physiology I with a minimum grade of C, with ALL requirements completed within 5 years; or OPTION 2: TEAS Reading Comprehension score of 75% or higher, TEAS Total Composite score of 65% to 74%, AND BIO 131 - Anatomy and Physiology I or BIO 132 - Anatomy and Physiology II or BIO 140 - Microbiology with a minimum grade of B, with ALL requirements completed within 5 years.
Corequisites:
BIO 131 - Human Anatomy and Physiology I. May be taken prior or during course.
BIO 140 - Microbiology and Immunology. May be taken prior or during course.
MAT 106 - Math Applications. May be taken prior or during course.
PSY 101 - Introduction to Psychology. May be taken prior or during course.

NUR 215 CONCEPTS OF NURSING IV: CARING FOR THE ADULT CLIENT WITH COMPLICATIONS ASSOCIATED WITH ACUTE AND CHRONIC ILLNESSES.....7-3-12
Building upon integrated concepts of nursing, the course focuses on applying and utilizing the concepts of nursing when caring for the adult client with complications associated with acute and chronic illnesses. The student identifies the health care needs of the adult using clinical reasoning and judgement with integration of the nursing process applied to complications of specific illnesses. Emphasis is placed on applying nursing skills when caring for the adult with complications of specific illnesses in varied health care settings. **This course is subject to a course fee.**
Prerequisites:
NUR 115 - Concepts of Nursing II: Caring for the Adult Client with Acute and Chronic Illness with a minimum grade of C within 1 year
NUR 116 - Concepts of Nursing III: Caring for Children and Childbearing Families with a minimum grade of C within 1 year
ENG 102 - English Composition II with a minimum grade of C
ESW 206 - Basic Nutrition with a minimum grade of C
Corequisites:
SOC 101- Introduction to Sociology. May be taken prior or during course.
NUR 216 - Concepts of Nursing V: Clinical Decision Making
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 216 CONCEPTS OF NURSING V: CLINICAL DECISION MAKING.....2-1-2
Building upon integrated concepts of nursing, this course focuses on applying and utilizing skills in clinical decision-making. The student identifies health care needs of the individual and community by utilizing clinical reasoning and judgement with integration of the nursing process demonstrating quality nursing care in a structured, controlled environment. Emphasis is placed on working in a collaborative team setting utilizing appropriate communication skills and priority setting when caring for clients. **This course is subject to a course fee.**
Prerequisites:
NUR 115 - Concepts of Nursing II: Caring for the Adult Client with Acute and Chronic Illness with a minimum grade of C within 1 year
NUR 116 - Concepts of Nursing III: Caring for Children and Childbearing Families with a minimum grade of C within 1 year
ENG 102 - English Composition II with a minimum grade of C
ESW 206 - Basic Nutrition with a minimum grade of C
Corequisites:
SOC 101- Introduction to Sociology. May be taken prior or during course.
NUR 215 - Concepts of Nursing IV: Care of the Adult Client with Complications to Acute and Chronic Illnesses
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 217 CONCEPTS OF NURSING VI: CARING FOR THE CLIENT ACROSS THE LIFESPAN EXPERIENCING LIFE-THREATENING HEALTH CARE NEEDS.....6-2-12
Building upon integrated concepts of nursing, this course focuses on applying and utilizing the concepts of nursing when caring for the client experiencing life-threatening situations. The student identifies urgent health care needs of the client across the lifespan using clinical reasoning and judgement with integration of the nursing process. Emphasis is placed on increasing independence with application of nursing skills in providing care for the client with urgent health care needs in varied health care settings. **This course is subject to a course fee.**
Prerequisites:
NUR 215 Concepts of Nursing IV: Caring for the Adult Client with Complications associated with Acute and Chronic Illnesses with a minimum grade of C within 1 year
NUR 216 - Concepts of Nursing V: Clinical Decision Making with a minimum grade of C within 1 year
SOC 101 Introduction to Sociology with a minimum grade of C
Corequisites:
Any Aesthetic Sensibility course (THA*105 or THA*114 recommended). May be taken prior or during course.
NUR 218 - Transition to Professional Nursing Practice
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 210 HOLISTIC HEALTH: COMPLEMENTARY AND ALTERNATIVE HEALTH PRACTICES.....3-3-0
This course will explore the use of complementary and alternative health practices within a holistic framework of care. A spirit of inquiry will be encouraged through sharing of knowledge, demonstration and exploration of selected health practices such as herbal remedies, homeopathy, healing touch therapies, chiropractic and Eastern therapies. Use of complementary and alternative health practices will be evaluated in the context of managing health conditions such as pain, weight, addictions, and gender specific issues. This course will examine use of complementary and alternative health practices in terms of safety, effectiveness and integration into one's own lifestyle and working with others.

NUR 218 TRANSITION TO PROFESSIONAL NURSING PRACTICE..3-2-3
Building upon integrated concepts of nursing, this course focuses on applying and utilizing skills needed to prepare the student for transition to professional nursing practice. Students will demonstrate ongoing independence in skills, Decision-making and problem-solving in a structured, controlled environment. Emphasis will be placed on working in a collaborative team setting, demonstration of professional communication and application of professional standards in the management of client centered care. **This course is subject to a course fee.**
Prerequisites:
NUR 215 Concepts of Nursing IV: Caring for the Adult Client with Complications associated with Acute and Chronic Illnesses with a minimum grade of C within 1 year
NUR 216 - Concepts of Nursing V: Clinical Decision Making with a minimum grade of C within 1 year
SOC 101 - Introduction to Sociology with a minimum grade of C
Corequisites:
Any Aesthetic Sensibility course (THA*105 or THA*114 recommended). May be taken prior or during course.
NUR 217- Concepts of Nursing VI: Caring for the Client across the Lifespan Experiencing Life-threatening Health Care Needs
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 107 INTRODUCTION TO PROFESSIONAL NURSING: CONCEPTS FOR TRANSITIONING TO PRACTICE.....3-2-3
This course introduces the licensed practical nurse (LPN) to the concepts of professional nursing practice building on previous knowledge and practice as the LPN transitions to the registered nurse role. The student identifies the wellness needs of the individual and community using clinical reasoning and judgement with integration of the nursing process needed for transitioning to the role of the registered nurse. Emphasis is placed on development of skills necessary for safe, client centered care that will prepare the student for success in the Nursing Program's curriculum. **This course is subject to a course fee.**
Prerequisites:
BIO 131 - Human Anatomy and Physiology I with a minimum grade of C within 5 years
BIO 140 - Microbiology and Immunology with a minimum grade of C within 5 years
MAT 106 - Math Applications with a minimum grade of C within 5 years
PSY 101 - Introduction to Psychology
Current LPN License
Final High School transcript with graduation date or equivalent on file at the College.
OPTION 1: TEAS Reading Comprehension score of 75% or higher, TEAS Total Composite score of 75% or higher, AND BIO 131 - Anatomy and Physiology I with a minimum grade of C, with ALL requirements completed within 5 years; or OPTION 2: TEAS Reading Comprehension score of 75% or higher, TEAS Total Composite score of 65% to 74%, AND BIO 131 - Anatomy and Physiology I or BIO 132 - Anatomy and Physiology II or BIO 140 - Microbiology with a minimum grade of B, with ALL requirements completed within 5 years.
Corequisites:
BIO 132 - Human Anatomy and Physiology II. May be taken prior or during course.

NUR 114 CONCEPTS OF NURSING I: PROMOTING WELLNESS IN THE INDIVIDUAL AND COMMUNITY.....6-3-9
Building upon the content from Introduction to Concepts of Nursing, this course fosters a deeper understanding and integration of the concepts of nursing in promoting wellness in the individual and communities. The student identifies the wellness needs of the individual and community using clinical reasoning and judgement with the integration of the nursing process. Emphasis is placed on developing nursing skills necessary for building the foundation for professional nursing practice in varied health care settings. **This course is subject to a course fee.**
Prerequisites:
NUR 108 - Introduction to Concepts of Nursing with a minimum grade of C within 1 year
BIO 131 - Human Anatomy and Physiology I with a minimum grade of C within 5 years
BIO 140 - Microbiology and Immunology with a minimum grade of C within 5 years
MAT 106 - Math Applications with a minimum grade of C within 5 years
PSY 101 - Introduction to Psychology with a minimum grade of C
Corequisites:
BIO 132 - Human Anatomy and Physiology II. May be taken prior or during course.
ENG 101 - English Composition I. May be taken prior or during course.
PSY 206 - Human Development: A Life Span Approach. May be taken prior or during course.
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 115 CONCEPTS OF NURSING II: CARING FOR THE ADULT CLIENT WITH ACUTE AND CHRONIC ILLNESSES.....3-2-3
Building upon the foundation for professional nursing practice, this course focuses on applying and integrating the concepts of nursing when caring for the adult with acute and chronic illnesses. The student identifies health care needs of the adult using clinical reasoning and judgement with the integration of the nursing process applied to specific illnesses. Emphasis is placed on applying nursing skills when caring for the adult in varied health care settings. **This course is subject to a course fee.**
Prerequisites:
NUR 114 - Concepts of Nursing I with a minimum grade of C within 1 year OR NUR 107 - Introduction to Professional Nursing: Concepts for Transitioning to Practice with a minimum grade of C within 1 year.
BIO 132 - Human Anatomy and Physiology II with a minimum grade of C within 5 years
ENG 101 - English Composition I with a minimum grade of C
PSY 206 - Human Development: A Life Span Approach with a minimum grade of C
Corequisites:
ESW 206 - Basic Nutrition. May be taken prior or during course.
ENG 102 - English Composition II. May be taken prior or during course.
NUR 116 - Concepts of Nursing III: Caring for Children and Childbearing Families
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 116 CONCEPTS OF NURSING III: CARING FOR CHILDREN AND CHILDBEARING FAMILIES..... 3-2-3
Building upon the foundation for professional nursing practice, this course focuses on applying and utilizing the concepts of nursing in promoting health in clients from birth through the reproductive years. The student identifies health care needs of the child and family using clinical reasoning and judgement with the integration of the nursing process. Emphasis is placed on understanding and applying the normal processes of growth and development from birth to the young adult when caring for the well child, family, and supporting families through a healthy pregnancy and birth in varied health care settings. **This course is subject to a course fee.**
Prerequisites:
NUR 114 - Concepts of Nursing I with a minimum grade of C within 1 year OR NUR 107 - Introduction to Professional Nursing: Concepts for Transitioning to Practice with a minimum grade of C within 1 year.
BIO 132 - Human Anatomy and Physiology II with a minimum grade of C within 5 years
ENG 101 - English Composition I with a minimum grade of C
PSY 206 - Human Development: A Life Span Approach with a minimum grade of C
Corequisites:
ESW 206 - Basic Nutrition. May be taken prior or during course.
ENG 102 - English Composition II. May be taken prior or during course.
NUR 115 - Concepts of Nursing II: Caring for the Adult Client with Acute and Chronic Illnesses
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 217H CONCEPTS OF NURSING VI: CARING FOR THE CLIENT ACROSS THE LIFESPAN EXPERIENCING LIFE-THREATENING HEALTH CARE NEEDS HONORS..... 6-2-12
Building upon integrated concepts of nursing, this course focuses on applying and utilizing the concepts of nursing when caring for the client experiencing life-threatening situations. The student identifies urgent health care needs of the client across the lifespan using clinical reasoning and judgement with integration of the nursing process. Emphasis is placed on increasing independence with application of nursing skills in providing care for the client with urgent health care needs in varied health care settings. This Honors course fosters high-achieving students' growth towards the learning outcomes by improving critical thinking, becoming proficient at laboratory skills, and prioritization of patient care. This course a stepping stone to bridge the knowledge gap between classroom activities and real-life bedside nursing while implementing best practices. **This course is subject to a course fee.**
Prerequisites:
NUR 215 Concepts of Nursing IV: Caring for the Adult Client with Complications associated with Acute and Chronic Illnesses with a minimum grade of C within 1 year
NUR 216 - Concepts of Nursing V: Clinical Decision Making with a minimum grade of C within 1 year
SOC 101 Introduction to Sociology with a minimum grade of C
Corequisites:
Any Aesthetic Sensibility course (THA*105 or THA*114 recommended). May be taken prior or during course.
NUR 218 - Transition to Professional Nursing Practice
All clinical requirements must be completed, uploaded and approved through CastleBranch to be eligible to take this course.

NUR 220 GENERAL PHARMACOLOGY..... 3-3-0
Designed for the student who has a basic understanding of the human body and how it works. This course emphasizes the major drug classifications, related legal/ethical considerations, pharmakokinetics, pharmakodynamics, drug toxicity and therapeutic monitoring.

OFFICE MANAGEMENT

OFM 101 BUSINESS SOFTWARE ESSENTIALS.....3-3-0
This course is designed to introduce students to computer systems and how businesses and offices use these as tools for organization, communication, decision-making and analysis. This course provides students with an overview of the use of business application software and problem-solving using that software. Taking a multimedia approach, topics include business communication tools, scheduling and presentation software, management information systems, operating systems, word processing, spreadsheets, databases, enterprise resource planning (ERP) systems, project management systems and business use of social media and open-source software. Students will evaluate and implement the use of these programs to solve a variety of problems and scenarios via real-world simulation projects that one would encounter in typical business or office environments. Industry standard computer software will be used.

OFM 250 PROOFREADING AND EDITING..... 3-3-0
This course develops proficiency in proofreading and editing skills for the workplace. Students develop skills to detect and correct spelling, punctuation, and grammatical errors and to ensure the use of audience-appropriate language in written communications including memos, letters, reports, email messages, databases, presentation slides, advertisements, and spreadsheets. Students will learn correct formatting of documents from business, health care, finance, and education.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II

OFM 110 MICROSOFT WORD APPLICATIONS.....3-3-0
This course provides a comprehensive overview of Microsoft Word software features commonly used in business environments. In this hands-on course, students will learn to create and customize documents using editing functions, formatting features, graphics and images, tables, charts, references, mail merge, and forms. This course will also prepare students to manage shared and collaborative documents with the use of the comments, track changes, protection, and sharing features.

OFM 198 COOPERATIVE INTERNSHIP IN OFM.....3-0-15
This course consists of employment in a college-approved organization to enable the student to gain insight into the operation of a modern office. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**
Prerequisites:
Permission of coordinator

OFM 243 INTEGRATED OFFICE SOFTWARE APPLICATIONS..... 3-3-0
This capstone course builds upon prior word processing, spreadsheet, database, presentation, graphics, and multimedia skills, as it further develops and extends the student's ability to integrate and apply the technology needed for particular "job functions". Online and multimedia applications will be used to incorporate images, audio, and video into a variety of document formats. Students will further develop their decision-making, critical thinking, and problem solving skills via simulations of typical job functions found in professional office environments.
Prerequisites:
CIS 110 - Information Systems for Management with Computer Applications, or OFM 101 - Business Software Essentials, or OFM 110 - Microsoft Word Applications

OFM 245 DESKTOP PUBLISHING..... 3-3-0
This course is designed for office professional staff, as well as for personal use. Using Microsoft Office Publisher software, students will reinforce and apply Windows skills, publication design techniques, page set-up and document layout, and work with text and graphic elements in a wide variety of business and personal publications. This is primarily a hands-on course.

OFM 298 COOPERATIVE INTERNSHIP IN OFM II.....3-0-15
This course consists of continued employment in a college-approved organization to enable the student to gain insight into the operation of a modern office. The course requires an optimum of 15 hours per week supervised and coordinated by a faculty member. Students are rated by the employer on their job performance. **This course is subject to a course fee.**
Prerequisites:
OFM 198 - Cooperative Internship in OFM I and permission of coordinator

OFM 161 MODERN OFFICE MANAGEMENT.....3-3-0
This course emphasizes the essential skills required for administrative assistants working in a contemporary office environment. Topics include: typical office protocols, time management, office equipment and technology, records management, meeting and travel planning, and proper business communication. Students will develop their customer service, teamwork, and problem-solving skills via real-world office simulations.

PHILOSOPHY

PHI 115 21ST CENTURY ETHICAL ISSUES..... 3-3-0
Philosophical methods will be used to examine some of the most controversial contemporary ethical and social issues. Among the issues that will be discussed are the following: Cloning and genetic engineering; decriminalization of currently banned drugs; transgenderism and gender non-conformity; abortion; animal rights, capital punishment; euthanasia and assisted suicide; affirmative action/preferential treatment programs.

PHI 101 INTRODUCTION TO ETHICS..... 3-3-0
This course is an introduction to the history of the philosophical examination of ethics from ancient Greece through contemporary thought in Western Philosophy will examined. Attention will also be given to non-Western ethical traditions (Confucianism, Buddhism, for example) that began even earlier than well-documented Western ethics. The substance of dominant varieties of objectivist views such as virtue ethics, utilitarianism, and deontological ethics will come under our scrutiny. Similar attention will be given to relativist/subjectivist opposition to these various objectivist views. An on-going focal point for all of the inquiries in the course will be the "debate" between supporters of objectivist views and supporters of "anti"-objectivist views as this "debate" has progressed through history. The course will also include discussion of the proper relation between the government and the diverse substantive ethical perspectives of individuals in a society such as the United States that is intentionally ethically pluralistic.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II

PHI 120 ETHICAL ISSUES AFFECTING CONSUMERS AND THE HEALTH CARE PROFESSIONS.....3-3-0
This course addresses the needs of the health care consumer and the provider alike. Stemming from a philosophical base, this course will examine controversies emerging from rapid technological advances and modern health care practice. Conflicts discussed range from the person's right to choose or refuse a particular course of treatment to issues of euthanasia, genetic research, and human experimentation. Students are encouraged to participate in discussions of ethical problems reported in the popular media and to develop a personal decision-making system which can be applied to a variety of ethical issues. Emphasis is on critical analysis and the incorporation of theory to ethical deliberations. The course is interactive, therefore, open discussion format and familiarity with use of the computer is essential.

PHI 215 COMPARATIVE RELIGIONS..... 3-3-0
An examination and study of the historical backgrounds and present day vitality of the major living religions of the world. Special attention will be focused on the study of ideas, cultic and ethical practices, and philosophical systems of: Hinduism, Buddhism, Jainism, Christianity, Zoroastrianism, Islam, Confucianism, Shintoism, Judaism, Sikhism and Taoism.

PHI 100 INTRODUCTION TO PHILOSOPHY.....3-3-0
A general introduction to philosophical issues and the methods of philosophical investigation. The course may be essentially historical in its approach or essentially problem-focused. Readings may be drawn from 'big names' in the history of philosophy (e.g., Aristotle, Plato, Thomas Aquinas, Descartes, Locke, Hume, Mill, and others) or from contemporary 'state-of-the-discipline' sources, or from both. Issues will include some from the following, among others: freewill and determinism; ethical relativism v ethical objectivism; the existence and rationality of belief in the existence of a god; the mind and body problem and the problem of other minds; the nature of persons and the possibility of artificial persons (thinking computers); applied philosophy issues such as the problem of abortion, the problem of same-sex marriage, the problem of death penalty.

POLITICAL SCIENCE

POL 125 AMERICAN STATE AND LOCAL GOVERNMENT..... 3-3-0
This course examines the operation of state and local government with analysis of their powers to tax and finance, enforce laws, regulate commerce and business, and promote social and economic welfare.

POL 250 TERRORISM & COUNTER-TERRORISM..... 3-3-0
Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and tactics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values.
Prerequisites:
A passing grade in at least one introductory level course in any of the following: Anthropology, Criminal Justice Studies, Economics, Geography, History, Political Science, Psychology or Sociology

POL 101 INTRODUCTION TO POLITICAL SCIENCE..... 3-3-0
This class provides an introduction to the discipline of political science and its varied fields of study (American, Comparative, International, Public Policy, and Political Theory). This course is a study of political systems, institutions, processes, and behaviors as they relate to diverse political cultures and socioeconomic demographics throughout the world. The purpose of the course is to expose students to global political, economic, and institutional issues as they relate to the discipline of political science.

POL 124 AMERICAN NATIONAL GOVERNMENT..... 3-3-0
This course will introduce students to a concrete study of American political institutions, the political process, and major areas of American public policy. This class will examine how race, class, gender and religion influence policy actors and the policy-making process. A discussion of the key elements of the U.S. Constitution-bicameralism, checks and balances, federal supremacy, and judicial review - is included in the course. The course also analyzes and studies mass media, interest groups, and political parties-all of which play a large role in shaping and influencing Congress, the presidency, the federal bureaucracy and the judiciary. Finally, the course examines American public policy, specifically in the areas of social and domestic policy, fiscal and monetary policy, foreign policy, and national security.

POL 245 INTERNATIONAL POLITICS.....3-3-0
This course focuses on the study of contemporary relations between states and other international actors. It places special emphasis on the analysis of foreign policy decision-making, diplomatic practices, international systems, international law and organizations, alliance behavior, conflict and conflict resolution as well as current international problems.

POL 240 COMPARATIVE POLITICS.....3-3-0
This is a course in the comparative analysis of various contemporary political systems. It focuses on the examination of their political cultures, constitutional foundations, governmental structures, policy-making processes, and capacity to adapt to change.

PUBLIC SAFETY ADMINISTRATION

PSA 201 LEADERSHIP AND INFLUENCE IN PUBLIC SAFETY..... 3-3-0
This course is intended to be a capstone course for public safety administration students. This course provides students with an overview of the theories and concepts of leadership development, as well as higher-order leadership skills and competencies for effective leadership in public safety administration. The course will examine leadership from a 'core values' approach, systems (chain of command) approach, a functional approach, a process approach, and a skills approach (motivation, supervision and communications). Topics include leadership, leadership theories and styles, leadership roles, leadership performance, individual leadership skills and plans, effective leadership, and future trends.
Prerequisites:
PSA 200 - Public Safety Incident Management

PSA 200 PUBLIC SAFETY INCIDENT MANAGEMENT..... 3-3-0
This course is designed to provide the student with an overview of the incident command and unified command structure and their operations. Students will examine incident management in various public safety circumstances. After gaining an understanding of incident management in various public safety situations, students will focus on the roles and responsibilities of rescue leaders as those roles relate to incident command and the unified command structure.
Prerequisites:
PSA 100 - Introduction to Public Safety Administration with a minimum grade of C
MGT 113 - Conflict Resolution And Negotiation with a minimum grade of C

PSA 102 FIRE DEPARTMENT ORGANIZATION AND ADMINISTRATION.....3-3-0
This course will provide an introduction to the history and philosophy of fire protection, the basic principles and concepts of organizational structure, the construction of new fire facilities and training. Topics that will be covered include the distribution of equipment and personnel, personnel management, communications, community and public relations, and a review of fire losses. There will also be a discussion of the relationship between fire prevention and fire control and extinguishment, budgeting, the use of systems analysis and operations research, reports and their uses.
Prerequisites:
PSA 100 - Introduction to Public Safety Administration with a minimum grade of C

PSA 101 PUBLIC SAFETY TECHNOLOGY.....3-3-0
This course will focus on current themes in public safety technology, including such topics as Computer Aided Dispatch, basic ideas of mobile radio technology, mobile data/mobile computer capabilities and functionality, public safety applications for Global Positioning technology, as well as emerging trends that will appear in the Public Safety arena in the next 3 to 5 years. An overview of standards governing communications systems, dispatchers, and other areas of public safety technology will also be covered. Topics will be covered at a non-technical level to provide the student with an overview and understanding of the technology.
Prerequisites:
PSA 100 - Introduction to Public Safety Administration with a minimum grade of C

PSYCHOLOGY

PSY 101 INTRODUCTION TO PSYCHOLOGY.....3-3-0
An examination of the vocabulary, theories and research methods common to the various branches of the science of psychology. The course surveys psychology from its early history to important new advances in brain research. The principles of psychology are applied to learning, to mental health, and to everyday life.

PSY 137 INTRODUCTION TO ORGANIZATIONAL PSYCHOLOGY... 3-3-0
Explores the application of psychological theory and research to understanding and improving work environments in both for profit and non-profit organizations. Students will gain skills through experiential learning of topics including enhancing motivation, performance evaluation, job satisfaction, communication, conflict resolution, achievement and leadership.

PSY 206 HUMAN DEVELOPMENT - A LIFE-SPAN APPROACH..... 3-3-0
A study of human development from conception to death. The physical, social, psychological and cognitive areas of life-span development will be examined. The major theories of human development the potential age stage-related crisis and other related problems of each stage will be given careful attention.

PSY 215 ABNORMAL PSYCHOLOGY..... 3-3-0
Biology, behavior and environment interact in complex ways to produce what is defined as abnormal. Historical material, pertinent research and relevant case studies provide an understanding of abnormal psychology and its impact on all of us.

PSY 136 PERSONALITY..... 3-3-0
A comparison of major approaches to the study of the development and structure of normal personality. Topics include the applications of psychological research to understanding and promoting mental health and human resilience. Consideration is given to the role of healthy personality in managing frustration, conflict, adjusting to predictable and unpredictable life changes, and achieving maximum well-being.

PSY 200 CHILD PSYCHOLOGY..... 3-3-0
This course is a study of human development from concept through adolescence. Physical, psychological, social, and emotional development is examined. The major theories are introduced as the back bone to the course. Research and its application to child development are also included. Historical relevance and cultural differences are also embedded throughout the course.
Prerequisites:
PSY 101 - Introduction to Psychology

PSY 214 SOCIAL PSYCHOLOGY.....3-3-0
Social psychology is a subfield of the science of psychology that focuses the ways in which the thoughts, feelings, and behaviors of one individual are influenced by the real, imagined, or implied behaviors or characteristics of others. A primary goal of this course is to introduce you to the perspectives, research methods, and empirical findings of social psychology. Equally important is the goal of cultivating your skills for analyzing the social situations and events that you encounter in your everyday lives. Finally, throughout the course, emphasis will be placed on developing critical and integrative ways of thinking about theory and research in social psychology. The course will focus on how man, as a social species, relates to one another. The course will also emphasize attitudes, persuasion, moral development, competition, aggression, attraction and love, prejudice and discrimination, group formation, research skills, and information literacy.

PSY 204 ADOLESCENT PSYCHOLOGY.....3-3-0
The effects of experiences in childhood and of cultural institutions on adolescence are identified and analyzed. Major themes and topics researched and discussed include: historical and current theories on adolescent development; personality; the development of healthy and unhealthy coping styles; and major indicators of cognitive, physical and psychosocial development.

PSY 210 EDUCATIONAL PSYCHOLOGY.....3-3-0
This course investigates three models (Behavioristic, Humanistic, and Cognitive) of human functioning and selected learning strategies derived from each. In addition, a number of traits and behaviors (e.g. SES, culture, motivation, curiosity, creativity, and intelligence) related to children's learning and cognitive developments are explored.

PSY 231 RESEARCH METHODS IN PSYCHOLOGY.....4-3-1
This course provides students with foundational knowledge and skills required to conduct valid research in psychology and other social sciences. Students will learn how to formulate a research study, prepare a proposal, and identify the ethical guidelines for research with human subjects. Approaches to measurement of behavior and experience, analysis and interpretation of results, and preparation of a written report of findings will be included. Three hours per week will be devoted to lecture/class presentation, and one hour per week will be spent in guided small group work on development and implementation of a research project.
Prerequisites:
PSY 101 - Introduction to Psychology
MAT 130 - Probability and Statistics or MAT 131 - Introduction to Statistics

PSY 101H INTRODUCTION TO PSYCHOLOGY HONORS.....3-3-0
An examination of the vocabulary, theories and research methods common to the various branches of the science of psychology. The course surveys psychology from its early history to important new advances in brain research. The principles of psychology are applied to learning, to mental health, and to everyday life. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading, artistic literacy, or original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

PSY 217 DRUGS - THEIR USE AND ABUSE.....3-3-0
This course explores the scientific facts about drugs commonly used and abused and their impact on human life. It details and integrates biological, psychological, social and cultural components of the most popular psychoactive substances. Legal, illegal, prescription, over-the-counter, performance enhancing substances as well as herbal medications is researched and described.

PSY 219 THE DRUG AND ALCOHOL TREATMENT PROCESS: AN INTRODUCTION.....3-3-0
Designed to provide a working knowledge of the helping process as it applies to drug and alcohol counseling, students completing this course should be able to: develop assessment and diagnostic skills; formulate appropriate goals, and treatment plans; improve interviewing and intervention skills with drug/alcohol clients; discuss and compare individual, group, and family treatment approaches; describe the levels of service available to drug/alcohol clients and their families; use AA, AL-ANON and other support groups as treatment allies; appreciate the impact of sex, age, ethnicity, race and religion on the treatment process; and understand the American Psychiatric Association's (DSM V) assessment of substance use disorders, anti-social personalities and depression.

PSY 250 PSYCHOLOGY OF AGING: HELPING SKILLS IN WORKING WITH OLDER ADULTS.....3-3-0
This course is an in-depth exploration of psychological theories and their applications to appreciating and working with older adults. Students will have the opportunity to gain an increased understanding of their own personal development and self knowledge in the context of the life cycle and to explore feelings about the aging process. Classroom experiences that focus on enhancing communications skills will be designed to enable students to translate psychological theories and helping techniques to every day family and job-related encounters with older adults. Open to all majors.
Prerequisites:
HSW 155 - Introduction to Aging, PSY 101 - Introduction to Psychology, or SOC 101 - Introduction to Sociology

PSY 203 ASSESSMENT & DOCUMENTATION IN HUMAN SERVICES..... 3-3-0
This course is designed to teach students the necessary skills to assess and document client interactions in a human services agency or program. Students will explore the nature of the helping relationship, demonstrate their active listening abilities, learn how to gather information, build treatment plans, and write case notes. Students will also understand case management in a managed care environment, and the legal, ethical and regulatory implications of comprehensive assessment and documentation.
Prerequisites:
ENG 101 - English Composition I with a minimum grade of C
HSW 101 - Introduction to Human Services and the Helping Profession with a minimum grade of C

PSY 216 ASSESSMENT AND TECHNIQUES FOR CHILDREN AND YOUTH.....3-3-0
This course is designed to develop the knowledge and skills in assessing the risk factors in the current situation of the child and/or adolescent. The course will focus upon the youth, educational, social, psychological, emotional and physical environment to determine the level of required intervention. Students will learn the techniques needed to assess and reduce risk factors.
Prerequisites:
HSW 101 - Introduction to Human Services and the Helping Profession

PSY 255 HUMAN SEXUALITY.....3-3-0
A survey of the major topic of sex education with emphasis placed on: sexual development, functioning, behavior, gender identification, reproduction, interpersonal relationships, health, historical and cultural sex studies, and sex education.

PHYSICAL THERAPIST ASSISTANT

PTA 100 FUNDAMENTALS OF PHYSICAL THERAPIST ASSISTING AND DATA COLLECTION..... 3-2-4
This course introduces the Physical Therapy Assistant (PTA) student to basic patient and healthcare team considerations critical to the professional role. Data collection essential to the discipline are introduced while concepts and purposes of therapeutic interventions and treatment strategies are presented. A focus on the characteristics and components of patient care techniques and the development of effective communication and interpersonal skills are fostered. During student-to-student practice in the on-campus laboratory setting students use simulated patient scenarios to demonstrate competency attainment in fundamental assessments, patient care skills and procedures. **This course is subject to a course fee.**
Prerequisites:
BIO 131 - Human Anatomy & Physiology I
BIO 132 - Human Anatomy & Physiology II
MAT 106 - Math Applications
PHY 115 - Technical Physics
ENG 101 - English Composition I
ESW 222 - Applied Kinesiology
ESW 224 - Exercise Physiology
THA 105 - Introduction to Acting I: Improvisation and Fundamentals
PSY 206 - Human Development - A Life-Span Approach
Corequisites:
PTA 110 - Therapeutic Modalities in Physical Therapy. May be taken prior or during course.
PTA 125 - Therapeutic Interventions for Physical Therapist Assisting. May be taken prior or during course.

PTA 204 PHYSICAL THERAPIST ASSISTANT (PTA) ROLES, RELATIONSHIPS AND RESPONSIBILITIES SEMINAR IV..... 1-1-0
Last of four seminars designed to foster professional development and prepare the physical therapist assistant student to successfully complete essential competencies and behaviors in the field of physical therapy. Participation in the healthcare environment and practice management of the physical therapy service is examined. Student self-assessment of performance and behavioral expectations met during the concurrent PTA 223 Clinical Education III experience is explored.
Prerequisites:
PTA 222 - Clinical Education II
PTA 203 - Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar III
Corequisites:
PTA 223 - Clinical Education III. May be taken prior or during course.

PTA 201 PHYSICAL THERAPIST ASSISTANT (PTA) ROLES, RELATIONSHIPS AND RESPONSIBILITIES SEMINAR I.....2-2-0
First of four seminars designed to foster professional development and prepare the physical therapist assistant student to successfully complete essential competencies and behaviors in the field of physical therapy. Orientation to the profession and the performance and behavioral expectations of the physical therapist assistant are discussed.
Prerequisites:
PTA 100 - Fundamentals of Physical Therapist Assisting and Data Collection
PTA 110 - Therapeutic Modalities in Physical Therapy
Corequisites:
PTA 200 - Pathology & Rehabilitation of Orthopedic Conditions Across the Lifespan and Continuum of Care. May be taken prior or during course.

PTA 210 PATHOLOGY & REHABILITATION OF NEUROLOGICAL CONDITIONS ACROSS THE LIFESPAN AND CONTINUUM OF CARE..... 5-4-4
This course emphasizes the etiology, pathology, prevention, data collection, and appropriate physical therapy interventions related to neurological conditions. Focus on motor control and motor learning throughout the lifespan serves to assist the student in understanding the abnormal. Application of orthotic devices, braces and splints for neurological conditions is discussed. Evidence based practice, clinical research, and justifying interventions based on clinical literature is integrated in the study of neurological conditions. Critical thinking skills are further developed as the student applies data in clinical decision making. During student-to-student practice in the on-campus laboratory setting students use simulated patient scenarios to demonstrate competency attainment. **This course is subject to a course fee.**
Prerequisites:
PTA 202 - Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar II
PTA 221 - Clinical Education I

PTA 220 PATHOLOGY & REHABILITATION OF SPECIAL POPULATIONS AND CONDITIONS ACROSS THE LIFESPAN AND CONTINUUM OF CARE.....4-3-4
This course emphasizes the etiology, pathology, prevention, data collection, and selected physical therapy interventions for management of patients with a variety of long term conditions that benefit from rehabilitative services. The physical therapy related needs of the geriatric population are discussed as many of these conditions impact the elderly. Emphasis is placed on wound care and lower extremity amputation physical therapy interventions. **This course is subject to a course fee.**
Prerequisites:
PTA 100 - Fundamentals of Physical Therapist Assisting and Data Collection
PTA 110 - Fundamentals of Physical Therapist Assisting and Data Collection
PTA 125 - Therapeutic Interventions for Physical Therapist Assisting
Corequisites:
PTA 200 - Pathology & Rehabilitation of Special Populations and Conditions Across the Lifespan and Continuum of Care. May be taken prior or during course.
PTA 201 - Physical Therapist Assistant Roles, relationships and Responsibilities. May be taken prior or during course.

PTA 110 THERAPEUTIC MODALITIES IN PHYSICAL THERAPY.....3-2-4
This course addresses the basic physical science, data collection, and principles of selected physical therapy interventions to facilitate healing and pain control. Presentation of a wide variety of clinical scenarios and pathologies facilitates the student's ability to use clinical judgment in selecting applying appropriate modalities. During student-to-student practice in the on-campus laboratory setting students use simulated patient scenarios to demonstrate competency attainment. **This course is subject to a course fee.**
Prerequisites:
MAT 106 - Math Applications
PHY 115 - Technical Physics
ENG 101 - English Composition I
ESW 222 - Applied Kinesiology
PSY 206 - Human Development - A Life-Span Approach
ESW 224 - Exercise Physiology
BIO 131 - Human Anatomy & Physiology I
BIO 132 - Human Anatomy & Physiology II
THA 105 - Introduction to Acting I: Improvisation and Fundam
Corequisites:
PTA 100 - Fundamentals of Physical Therapist Assisting and Data Collection. May be taken prior or during course.
PTA 125 - Therapeutic Interventions for Physical Therapist Assisting. May be taken prior or during course.

PTA 223 CLINICAL EDUCATION III.....2-0-16
This terminal 6-week clinical affiliated course of 240 hours affords the PTA student preparing for entry level practice direct patient care experience in applying assessments, procedures and skills under the direct supervision of a licensed practitioner of physical therapy. With a focus on safe, legal, ethical and effective use of physical therapy interventions the acute or out-patient setting affords the student with a variety of clinical experiences with diverse patient populations where professional competency within the scope of practice of the PTA is developed. Supervision of the student culminating in entry level practice is provided by the staff of the affiliating institution and is coordinated by the college faculty. **This course is subject to a course fee.**
Prerequisites:
PTA 203 Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar III
PTA 222 - Clinical Education II
Corequisites:
PTA 204 - Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar

PTA 202 PHYSICAL THERAPIST ASSISTANT (PTA) ROLES, RELATIONSHIPS AND RESPONSIBILITIES SEMINAR II.....1-1-0
Second of four seminars designed to foster professional development and prepare the physical therapist assistant student to successfully complete essential competencies and behaviors in the field of physical therapy. Evidenced practice and the role of the PTA as teacher is examined. Building on the first seminar course, discussion of performance and behavioral expectations of the physical therapist assistant continues.
Prerequisites:
PTA 201 - Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar I
Corequisites:
PTA 221 - Clinical Education I. May be taken prior or during course.

PTA 221 CLINICAL EDUCATION I.....2-0-16
This integrated 7-week clinical affiliated course of 240 hours affords the beginning Physical therapist Assistant (PTA) student direct patient care experience in applying assessments, procedures and skills under the direct supervision of a licensed practitioner of physical therapy. With a focus on safe, legal, ethical and effective use of physical therapy interventions the acute or out-patient setting affords the student with a variety of clinical experiences with diverse patient populations where professional competency within the scope of practice of the PTA is developed. Supervision of the student at the beginner level is provided by the staff of the affiliating institution and is coordinated by the college faculty. **This course is subject to a course fee.**
Prerequisites:
PTA 200 - Pathology & Rehabilitation of Orthopedic Conditions Across the Lifespan and Continuum of Care
PTA 201 - Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar I
Corequisites:
PTA 202 - Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar II

PTA 222 CLINICAL EDUCATION II.....2-0-16
This integrated 7-week clinical affiliated course of 240 hours affords the PTA intermediate student direct patient care experience in applying assessments, procedures and skills under the direct supervision of a licensed practitioner of physical therapy. With a focus on safe, legal, ethical and effective use of physical therapy interventions the acute or out-patient setting affords the student with a variety of clinical experiences with diverse patient populations where professional competency within the scope of practice of the PTA is developed. Supervision of the student at the intermediate level is provided by the staff of the affiliating institution and is coordinated by the college faculty. **This course is subject to a course fee.**
Prerequisites:
PTA 210 - Pathology & Rehabilitation or Neurological Conditions Across the Lifespan and Continuum of Care
PTA 220 - Pathology & Rehabilitation of Special Populations and Conditions Across the Lifespan and Continuum of Care
Corequisites:
PTA 203 - Physical Therapist Assistant (PTA) Roles, Relationships and Responsibilities Seminar III

PTA 125 THERAPEUTIC INTERVENTIONS FOR PHYSICAL THERAPIST ASSISTING..... 4-3-4

This course addresses the basic physical science and principles of selected physical therapy interventions and testing to facilitate improvements in range of motion, strength, endurance, and balance. Common equipment and exercise interventions will be covered. Presentation of a wide variety of clinical scenarios and pathologies facilitates the student's ability to use clinical judgment in selecting appropriate therapeutic interventions. During student-to-student practice in the on-campus laboratory setting students use simulated patient scenarios to demonstrate competency attainment. **This course is subject to a course fee.**

Prerequisites:
MAT 106 - Math Applications
PHY 115 - Technical Physics
ENG 101 - English Composition I
ESW 222 - Applied Kinesiology
PSY 206 - Human Development - A Life-Span Approach
ESW 224 - Exercise Physiology
THA 105 Introduction to Acting I: Improvisation and Fundamentals
BIO 131 - Human Anatomy & Physiology I
BIO 132 - Human Anatomy & Physiology II
Corequisites:
PTA 100 - Fundamentals of Physical Therapist Assisting and Data Collection. May be taken prior or during course.
PTA 110 - Therapeutic Modalities. May be taken prior or during course.

PTA 200 PATHOLOGY & REHABILITATION OF ORTHOPEDIC CONDITIONS ACROSS THE LIFESPAN AND CONTINUUM OF CARE..... 5-4-4

This course emphasizes the etiology, pathology, prevention, data collection, and appropriate physical therapy interventions related to orthopedic conditions. Application of orthotic devices, braces and splints for orthopedic conditions is discussed. Evidence based practice, clinical research, and justifying interventions based on clinical literature is integrated in the study of musculoskeletal system conditions. Critical thinking skills are developed as the student applies data in clinical decision making. During student-to-student practice in the on-campus laboratory setting students use simulated patient scenarios to demonstrate competency attainment. **This course is subject to a course fee.**

Prerequisites:
PTA 100 - Fundamentals of Physical Therapist Assisting and Data Collection
PTA 110 - Therapeutic Modalities in Physical Therapy
PTA 125 - Therapeutic Interventions for Physical Therapist Assisting
Corequisites:
PTA 201 - Physical Therapist Assistant Roles, Relationships and Responsibilities Seminar I. May be taken prior or during course.
PTA 220 - Pathology & Rehabilitation of Special populations & Conditions Across the Lifespan and Continuum of Care. May be taken prior or during course.

PTA 203 PHYSICAL THERAPIST ASSISTANT (PTA) ROLES, RELATIONSHIPS AND RESPONSIBILITIES SEMINAR III.....1-1-0

Third of four seminars designed to foster professional development and prepare the physical therapist assistant (PTA) student to successfully complete essential competencies and behaviors in the field of physical therapy. Learning opportunities assist in the transition from student to entry-level clinician. Activities include national board exam review preparation, Pennsylvania State PTA certification application process, job search strategies, resume development, and professional interview skills. Student self-assessment of performance and behavioral expectations met during the concurrent PTA 222 Clinical Education II experience is explored.

Prerequisites:
PTA 210 - Pathology & Rehabilitation or Neurological Conditions Across the Lifespan and Continuum of Care
PTA 220 - Pathology & Rehabilitation of Special Populations and Conditions Across the Lifespan and Continuum of Care
Corequisites:
PTA 222 - Clinical Education II. May be taken prior or during course.

RADIOGRAPHY

RAD 214 CLINICAL EDUCATION IV.....4-0-20

The student will observe, assist and perform radiographic examinations at the Clinical Education Centers that correlate with the didactic courses in those areas. Special attention during this semester will be given to fluoroscopic procedures as well as imaging of the skull and sinuses. **This course is subject to a course fee.**

Prerequisites:
RAD 124 - Clinical Education III
Corequisites:
RAD 103 - Radiation Protection and Biology. May be taken prior or during course.
RAD 221 - Radiographic Procedures III. May be taken prior or during course.

RAD 106 RADIOGRAPHIC IMAGE PRODUCTION AND ANALYSIS.. 3-2-2

This course is designed to provide the student with entry level knowledge needed to formulate the applicable factors that influence the production of radiographic images. Discussions throughout the course will include the basics of the image acquisition process, computer processing and the display of the image. Quality management techniques and programs will also be discussed throughout. Students will learn to identify and apply the appropriate factors that will result in an optimum diagnostic image with the minimum radiation exposure to the patient. Demonstrations and student experimentation will be included in the application of the theory assisting the student in being able to associate the impact of the image processing parameters to the appearance of the radiographic image. **This course is subject to a course fee.**

Prerequisites:
BIO 131 - Human Anatomy and Physiology I with minimun grade of C within 2 attempts and within 5 years
MAT 106 - Math Applications or any other Quantitative Reasoning course except ACC 110 and MAT 103, with a minimum grade of C within 2 attempts within the last 5 years of the date of enrollment in RAD 100
BIO 132 - Human Anatomy and Physiology II with minimun grade of C within 2 attempts and within 5 years
Corequisites:
RAD 100 - Introduction to Radiography and Patient Care. May be taken prior or during course.
RAD 104 - Clinical Education I. May be taken prior or during course.
RAD 111 - Radiographic Procedures I. May be taken prior or during course.

RAD 114 CLINICAL EDUCATION II..... 3-0-15

This clinical course is a continuation of Clinical Education I. Emphasis is placed on clinical rotations where students can observe, practice and perform those examinations learned and simulated in the Radiographic Procedures I and II course. Students will be required to perform competency examinations, image evaluations and proper patient care procedures. **This course is subject to a course fee.**

Prerequisites:
RAD 100 - Introduction to Radiography and Patient Care
RAD 106 - Radiographic Image Production and Analysis
RAD 104 - Clinical Education I
RAD 111 - Radiographic Procedures I
Corequisites:
RAD 105 - Radiographic Physics and Imaging Equipment. May be taken prior or during course.
RAD 121 - Radiographic Procedures II. May be taken prior or during course.

RAD 100 INTRODUCTION TO RADIOGRAPHY & PATIENT CARE....3-3-0
This course will provide the student with an overview of the foundations in radiography and the practitioner's role in the health care delivery system. Principles, practices and policies of the health care organizations will be examined and discussed in addition to the professional responsibilities of the radiographer. Communication skills and professional conduct of the radiographer in the clinical setting will also be introduced. Basic concepts of patient care, physical and psychological needs of the patient, and routine and emergency patient care will be described. Human diversity in health care will be discussed and its impact in the treatment of patients. In addition, a self-teaching workbook and self-assessments will be utilized to learn medical terminology.
Prerequisites:
BIO 131 - Human Anatomy and Physiology I with a minimum grade of C on the first 2 attempts within 5 years
BIO 132 - Human Anatomy and Physiology II with a minimum grade of C on the first 2 attempts within 5 years
MAT 106 - Math Applications or any other Quantitative Reasoning course except ACC 110 and MAT 103, with a minimum grade of C within 2 attempts within the last 5 years of the date of enrollment in RAD 100
Corequisites:
RAD 106 - Radiographic Image Production and Analysis. May be taken prior or during course.
RAD 104 - Clinical Education I. May be taken prior or during course.
RAD 111 - Radiographic Procedures. May be taken prior or during course.

RAD 121 RADIOGRAPHIC PROCEDURES II.....3-2-2
This course is a continuation of the Radiographic Procedures I (RAD 111) course. This course is designed to prepare the student to perform certain radiographic procedures of the lower extremity and spine that are of optimal diagnostic quality. Laboratory experience combined with simulations and clinical experience are used to complement the didactic portion of the course. **This course is subject to a course fee.**
Prerequisites:
RAD 100 - Introduction to Radiography and Patient Care
RAD 106 - Radiographic Image Production and Analysis
RAD 104 - Clinical Education I
RAD 111 - Radiographic Procedures I
Corequisites:
RAD 105 - Radiographic Physics and Imaging Equipment. May be taken prior or during course.
RAD 114 - Clinical Education II. May be taken prior or during course.

RAD 221 RADIOGRAPHIC PROCEDURES III.....3-2-2
As a continuation of Radiographic Procedures, this course will provide the student with the knowledge to perform standard radiographic procedures of the skull, sinuses and contrast media studies. Special studies including venography, angiography, mammography, CT, MRI and vascular imaging will be included. Coursework will also include pharmacology and cross sectional anatomy. Laboratory simulations as well as student practice will be emphasized in this course. **This course is subject to a course fee.**
Prerequisites:
RAD 124 - Clinical Education III
Corequisites:
RAD 103 - Radiation Protection and Biology. May be taken prior or during course.
RAD 214 - Clinical Education IV. May be taken prior or during course.

RAD 103 RADIATION PROTECTION AND BIOLOGY.....2-2-0
This course is designed to present an overview of the basic principles of radiation protection and the principles of the interaction of radiation with living organisms. Included in this course are the various methods of protecting the radiographer, patient and others from unnecessary radiation exposure and limitation devices used to limit exposure. Factors affecting biological responses are presented including acute and chronic effects of radiation. Basic principles regarding exposure will be discussed. Radiation health and safety requirements of federal and state agencies will also be incorporated.
Prerequisites:
RAD 124- Clinical Education III
Corequisites:
RAD 214 - Clinical Education IV. May be taken prior or during course.
RAD 221 - Radiographic Procedures III. May be taken prior or during course.

RAD 111 RADIOGRAPHIC PROCEDURES I.....3-2-2
Radiographic Procedures I is designed to provide the knowledge base necessary to perform standard radiographic procedures. This course combines didactic coursework along with laboratory demonstration, simulation and practice. Students will learn radiographic procedures of the chest, abdomen and upper extremity and shoulder girdle. **This course is subject to a course fee.**
Prerequisites:
BIO 131 - Human Anatomy and Physiology I with minimun grade of C on the first 2 attempts within five (5) years
BIO 132 - Human Anatomy and Physiology II with minimun grade of C on the first 2 attempts within five (5) years
MAT 106 - Math Applications or any other Quantitative Reasoning course except ACC 110 and MAT 103, with a minimum grade of C within 2 attempts within the last 5 years of the date of enrollment in RAD 100
Corequisites:
RAD 100 - Introduction to Radiography and Patient Care. May be taken prior or during course.
RAD 106 - Radiographic Image Production and Analysis. May be taken prior or during course.
RAD 104 - Clinical Education I. May be taken prior or during course.

RAD 230 RADIOGRAPHIC PATHOLOGY.....2-2-0
This course introduces theories of disease causation and the pathophysiologic disorders that compromise healthy systems as applied to the radiographer. Etiology, responses and radiographic manifestations will be discussed. Each major body system will be included to address radiographic appearance of disease and disease management. The major emphasis of this course is how radiographic examinations demonstrate different pathologies.
Prerequisites:
RAD 103 - Radiation Protection and Biology
RAD 214 - Clinical Education IV
RAD 221 - Radiographic Procedures III
Corequisites:
RAD 224 - Clinical Education V. May be taken prior or during course.
RAD 251 Imaging Prof & Prof Readiness. May be taken prior or during course.

RAD 105 RADIOGRAPHIC PHYSICS AND IMAGING EQUIPMENT... 3-3-0
This course is designed to establish a basic knowledge of atomic structure and terminology. The nature and characteristic of radiation, x-ray production and the fundamentals of photon interactions with matter are included. Students will establish a knowledge base in radiographic, fluoroscopic, and mobile requirements along with design. Basic quality control measures to imaging equipment and accessories will also be discussed. Demonstrations and student experimentation will be included in the application of the theory. **This course is subject to a course fee.**
Prerequisites:
RAD 100 - Introduction to Radiography and Patient Care
RAD 106 - Radiographic Image Production and Analysis
RAD 104 - Clinical Education I
RAD 111 - Radiographic Procedures I
Corequisites:
RAD 121 - Radiographic Procedures II. May be taken prior or during course.
RAD 114 - Clinical Education II. May be taken prior or during course.

RAD 224 CLINICAL EDUCATION V.....4-0-20
As the last of the clinical education series, students will be completing their clinical competency examinations and will have the opportunity to rotate to various specialty areas in the radiology department. In addition, program officials and/or designees will be completing terminal competency examinations with each student to assure program competency. Terminal competency evaluations must be successfully completed by each student in order to be eligible for graduation and professional practice. **This course is subject to a course fee.**
Prerequisites:
RAD 103 - Radiation Protection and Biology
RAD 214 - Clinical Education IV
RAD 221 - Radiographic Procedures III
Corequisites:
RAD 230 - Radiographic Pathology. May be taken prior or during course.
RAD*251 Imaging Prof & Prof Readiness. May be taken prior or during course.

RAD 251 IMAGING PROFESSIONALS AND PROFESSIONAL READINESS.....3-3-0
This course is an introduction to additional imaging concentrations. Information is shared on, but not limited to equipment, radiation dose, methods of image creation, basic indication and contraindications, image appearance and educational/certification requirements pertaining to the various imaging concentrations. This course also contains a capstone component that will review major points that were covered throughout the student's didactic & clinical education. The focus of this course will be on resume preparation, interview skills and mock Registry exams. The intent of this course is to prepare the student for the ARRT exam and for employment after graduation. Students will be required to complete a capstone project.
Prerequisites:
RAD 221 - Radiographic Procedures III
RAD 214 - Clinical Education IV
RAD 103 - Radiation Protection and Biology
Corequisites:
RAD 224 - Clinical Education V. May be taken prior or during course.
RAD 230 - Radiographic Pathology. May be taken prior or during course.

RAD 104 CLINICAL EDUCATION I.....3-0-15
During this first semester of Clinical Education, students will be assigned to clinical areas in the clinical education center, which coincide with didactic information covered during the semester in Procedures I (RAD 111), Radiographic Exposure and Technique I (RAD 102), and Introduction to Radiography (RAD 100). Students will be oriented to ethics and laws as they pertain to imaging, clinical rules and regulations, the department of radiology to which they are assigned, and the clinical education handbook. Students will attend clinical education for 15 hours per week. **This course is subject to a course fee.**
Prerequisites:
BIO 131 - Human Anatomy and Physiology I with minimun grade of C on the first 2 attempts within five (5) years
BIO 132 - Human Anatomy and Physiology II with minimun grade of C on the first 2 attempts within five (5) years
MAT 106 - Math Applications or any other Quantitative Reasoning course except ACC 110 and MAT 103, with a minimum grade of C within 2 attempts within the last 5 years of the date of enrollment in RAD 100
Corequisites:
RAD 100 - Introduction to Radiography and Patient Care. May be taken prior or during course.
RAD 106 - Radiographic Image Production and Analysis. May be taken prior or during course.
RAD 111 - Radiographic Procedures I. May be taken prior or during course.

RAD 124 CLINICAL EDUCATION III.....4-0-20
This course is a continuation of the Clinical Education series. Students will be at the clinical education center(s) observing, assisting and performing radiologic examinations. Students will utilize this concentrated time to master positioning, technique and patient care skills that they learned throughout the first year of the program. **This course is subject to a course fee.**
Prerequisites:
RAD 105 - Radiographic Physics and Imaging Equipment
RAD 114 - Clinical Education II
RAD 121 - Radiographic Procedures II

SOCIOLOGY

SOC 103 SOCIAL PROBLEMS.....3-3-0
This course offers a critical examination of major social problems in the contemporary United States within the context of wider global issues. Students will learn to think sociologically about the causes and consequences of contemporary social problems. Course focus is on uncovering the social conditions, forces, and social structures that give rise to social problems. Problems covered include but are not limited to: poverty, gender, homophobia/heterosexim, race and class inequality, crime, education, environment and health care.

SOC 244 SOCIOLOGY OF DEATH & DYING.....3-3-0
The course consists of an investigation of the following topics: individual attitudes on death and dying, social and cultural attitudes on death and dying, socializing the individual into attitudes on death and dying, medical concept of death and dying, legal concept of death and dying, demographic data on death and dying, death and dying and its effect on the economy, the family and death, religion (attitudes and ritual) and death, euthanasia and suicide as well as practical methods for dealing with death and the dying.

SOC 254 AGING IN THE UNITED STATES..... 3-3-0
This course is an in-depth exploration of the current social issues concerning older adults in U.S. society. Students will examine the social needs which confront all older people and those needs of particular sub-groups of the older population such as the frail elderly, women, and minorities. Emphasis will be placed on reviewing the legislation which has led to the creation of programs and services for meeting the needs of older adults and on analyzing the system of services to detect areas of unmet needs, such as the need for long-term care. Students will have the opportunity to gain an understanding of techniques of advocacy which can be used on behalf of and in concert with older persons. Open to all majors.
Prerequisites:
HSW 155 - Introduction to Aging, PSY 101 - Introduction to Psychology, or SOC 101 - Introduction to Sociology

SOC 220 CRIMINOLOGY..... 3-3-0
A study of crime and delinquency patterns, their causes, and remedial measures, emphasizing social, economic, and psychological forces involved in the shaping of criminal behavior. The role of law enforcement and the functioning of treatment and punishment models will also be discussed.
Prerequisites:
CJS 100 - Introduction to Criminal Justice

SOC 255 ORGANIZED CRIME.....3-3-0
This course examines the problem of organized crime (OC) from an interdisciplinary perspective, including a series of key legal, law enforcement and social issues, with a focus on American OC and enterprise crime in comparative perspective. Topics will include: the concept and definition of OC; a range of theoretical perspectives on OC; the relationship between white collar, criminal organized crime, enterprise crime and non-criminal economic activity; historical origins; ethnic connections; international linkages; models of organized crime; major organized crime groups; major organized criminal activities; emerging organized criminal activities; the relationship of OC to public corruption; strategies for combating organized crime; and the future outlook.
Prerequisites:
CJS 100 - Introduction to Criminal Justice or SOC 101 - Introduction to Sociology

SOC 130 INTRODUCTION TO YOUTH AND FAMILY SYSTEMS.....3-3-0
This introductory course examines children and youth within the context of their familial role. Emphasis is placed upon non-traditional as well as traditional family systems and the impact that issues such as divorce, substance abuse, child abuse and incarceration has on the various units in the family system.

SOC 170 SPORTS AND SOCIETY.....3-3-0
This course introduces students to the dynamic relationships between sports, culture, society and the issues and challenges within this framework. We will look at sports as a microcosm of the larger society and as a field in which to test various sociological theories. The foundation of this course is based on the understanding of approaches and theories within the global perspective of the sport industry. Students will study sports in the context of the economy, diversity, demographics, politics, media, the ethical and legal environments and additional important topics. This knowledge will allow students to think critically about the interlocking of sports and the external environment. Thus, enabling them to create valuable policies and programs in the sport industry. This course keeps pace with industry trends and is aligned with topics outlined by the Commission on Sport Management Accreditation (COSMA).

SOC 105 SOCIAL POLICY & ETHICS IN HUMAN SERVICES.....3-3-0
This course examines the relationship of social policy, ethics, and the human services field. Students will address ethical dilemmas, particularly as they relate to current and needed social policies on local, state, and national levels. A basic understanding of social welfare theories will assist the student in evaluating, assessing, and advocating for change in both a micro / macro perspective. The Ethical Standards of Human Service Professionals (National Organization for Human Services) will serve as a backbone for students to use in decision-making, assessment of clients and client groups, and promotion of change in a diverse setting.

SOC 224 MINORITIES IN UNITED STATES..... 3-3-0
This course is designed to study the social structure of the United States, i.e., "elitism," "pluralism," and the major ethnic, racial, and religious minorities therein: reasons for their migrations, problems encountered, and prohibitions preventing some from participating in the mainstream of American life will also be discussed. Focus is both sociological and historical.

SOC 101 INTRODUCTION TO SOCIOLOGY.....3-3-0
This course introduces the scientific study of human society. It presents the basic components of sociology, i.e., groups, society, culture, socialization, institutions, collective behavior, stratification, and social change, for review and critique. Social structures, social rules and change within society is explored with respect to the history of societal development as well as current social trends.

SOC 250 TERRORISM & COUNTERTERRORISM.....3-3-0
Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and tactics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values.
Prerequisites:
A passing grade in at least one introductory level course in any of the following: Anthropology, Criminal Justice Studies, Economics, Geography, History, Political Science, Psychology or Sociology

SOC 101H INTRODUCTION TO SOCIOLOGY HONORS.....3-3-0
This course introduces the scientific study of human society. It presents the basic components of sociology, i.e., groups, society, culture, socialization, institutions, collective behavior, stratification, and social change, for review and critique. Social structures, social rules and change within society are explored with respect to the history of societal development as well as current social trends. This Honors course fosters high-achieving students' growth towards learning outcomes such as: problem solving, often with creative approaches; critical reading, artistic literacy, or original data analysis; forming judgments based on evidence, often from alternative modes of inquiry or integrative learning; clear, persuasive research writing; oral presentation; and articulate reflection on personal growth. Honors courses are more likely to utilize student-driven active learning, emphasizing exploration and discovery, rather than the acquisition of specific knowledge; faculty might provide projects with no pre-determined conclusion, but with real-world application.

SOC 230 SOCIOLOGY OF FAMILIES.....3-3-0
This course explores the historical development of families; class, ethnic and sexual variations of family structure in contemporary societies; social issues that impact contemporary families; the division of labor and power in families; and current trends in American family patterns.

SPANISH

SPA 102 ELEMENTARY SPANISH II.....3-3-0
This course, a continuation of SPA 101, reinforces progress in the four language skills: speaking, writing, listening, and reading. Increased emphasis given to oral communication skills. SPA 102 promotes understanding of Hispanic culture.
Prerequisites:
SPA 101 - Elementary Spanish I

SPA 216 SPANISH CONVERSATION II..... 3-3-0
This course provides practical use of the language with emphasis on speaking and listening skills, leading to oral proficiency. As a conversation course, most of the activities will be performed by the students.
Prerequisites:
SPA 215 - Spanish Conversation I

SPA 252 ADVANCED SPANISH II.....3-3-0
The History and Culture of Latin America is a course designed to increase students' awareness and understanding of the historical, literary, and artistic development of this geographical area while improving proficiency in oral and written communication skills. This class is taught in Spanish. Outside reading is required.
Prerequisites:
SPA 251 - Advanced Spanish I

SPA 215 SPANISH CONVERSATION I..... 3-3-0
Practical use of the language with emphasis on oral-aural techniques, leading toward fluency and correctness in speaking. As a conversation course, most of the activities will be performed by the students.
Prerequisites:
SPA 202 - Intermediate Spanish II

SPA 251 ADVANCED SPANISH I.....3-3-0
Advanced Spanish I is a course designed to improve proficiency in written and oral Spanish. Students will study the contemporary culture of Spain via authentic materials selected from authentic media as well as from cultural readings. Spanish literature is approached through the study of representative excerpts from the works of major Spanish authors. This class is taught in Spanish. Outside reading is required.
Prerequisites:
SPA 202 - Intermediate Spanish II

SPA 202 INTERMEDIATE SPANISH II..... 3-3-0
This course, a continuation of SPA 201 increases the emphasis on review of grammatical concepts and instruction in new topics. Expanded focus is given to speaking and understanding the target language through listening to native speech, reading of more complex texts, and writing skills. SPA 202 continues to promote the understanding of Hispanic culture.
Prerequisites:
SPA 201 - Intermediate Spanish I

SPA 101 ELEMENTARY SPANISH I.....3-3-0
A study of the fundamentals of Spanish language with exercises on communication skills, as well as an introduction to Hispanic culture through various media selections. Open to students with no previous training or one year of high school Spanish.

SPA 201 INTERMEDIATE SPANISH I..... 3-3-0
This course, a continuation of SPA 102, reinforces progress in the four language skills: speaking, writing, listening, and reading. Increased emphasis given to oral communication skills. SPA 201 promotes understanding of Hispanic culture.
Prerequisites:
SPA 102 - Elementary Spanish II

THEATRE

THA 105 ACTING I..... 3-2-2
This entry-level course in acting is an exploration of the individual's body, voice, imagination, and tools for communication. Using theatre games, exercises, and various acting methods, students will develop their tools while exploring improvisation and scripted works. These tools will be applied to the presentation of monologues and scenes. Students will be required to view live and/or streamed theatre performances. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

THA 114 THEATRE APPRECIATION..... 3-1-2
This course is an entry level course in theatre history, its practice, and the creation of the theatrical event, exploring theatre's role as a central, social communication event. Through group and individual presentations, students will explore the roles of the various artists who collaborate to create theatre, how ideas are reflected in the conception and reading of a play, and how ideas about interpretation and aesthetic can be reflected in production. Students will be required to view live and/or streamed theatre performances.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

THA 201 ACTING FOR THE CAMERA.....3-2-2
This course is designed to help students learn the fundamental techniques of acting and the craft of adapting those skills to the screen. Projects are presented in-class for discussion and feedback from the instructor and fellow students. This course will also explore the related business aspects of pursuing an acting career. Students will be required to view live and/or streamed theatre performances. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 -Vocabulary and Reading Comprehension Development II
THA 105 - Acting I with a minimum grade of C

THA 203 THEATRE PRODUCTION WORKSHOP III: THEATRE PRODUCTION DESIGN..... 3-1-5
This studio/lab course stresses the practical application of skills and techniques of theatrical design, working directly on production and consisting of practical application and lab hours. Each student will design/lead a specific aspect of a fully realized theatrical production. Lab hours include both hours spent working on projects during class-time as well as additional hours to be completed throughout the semester outside of class time. **This course is subject to a course fee.**
Prerequisites:
THA 151 - Theatre Production Workshop II: Production Practicum with minimum grade of C

THA 150 THEATRE PRODUCTION WORKSHOP I: INTRODUCTION TO STAGECRAFT..... 3-1-5
A studio/lab class in which students learn the components of theatre production by participating in producing, building, and mounting a fully realized stage production. Students will be required to view live and/or streamed theatre performances. **This course is subject to a course fee.**

THA 151 THEATRE PRODUCTION WORKSHOP II: PRODUCTION PRACTICUM..... 3-1-5
In this course students will apply the skills learned in THA 150, with a particular focus on leadership, to produce, build, and mount a fully realized stage production. Students will take greater responsibility and hold specific positions of leadership. Students will evaluate the process's strengths and weaknesses. **This course is subject to a course fee.**
Prerequisites:
THA 150 - Theatre Production Workshop I: Introduction to Stagecraft with minimum grade of C
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

THA 106 ACTING II..... 3-2-2
This course is a continuing exploration of an actor's tools of voice, body, and imagination. Students will expand on their exploration of script analysis to further their skills in character development. Students will discuss and explore the actor's tools and instruments through exercise work, scene work, and personal explorations. Students will be required to view live and/or streamed theatre performances. **This course is subject to a course fee.**
Prerequisites:
THA 105 - Acting I with a minimum grade of C

THA 250 ACTING SHAKESPEARE..... 3-2-2
This is an acting course that uses a multi-layered text analysis approach to the basic and more advanced techniques of the works of the most-produced playwright in the English language. Students will develop and refine the performance of Shakespeare's plays through scene work and related exercises. Students will be required to view live and/or streamed theatre performances. **This course is subject to a course fee.**
Prerequisites:
THA 105 - Acting I with minimum grade of C
THA 106 - Acting II: Scene Study with minimum grade of C

THA 205 DIRECTING I.....3-2-2
This course is an introduction to directing theories and methods, focusing on the directing of actors in theatre and film. Through practical exercises, students will focus on both the directing preparation process, and the practical application of directing techniques as they relate to collaborating with actors, designers, filmmakers, and other collaborators. Student directors will study an overview of directing styles, the skills required in analyzing a text for interpretation, and methods of organization for creating a production. Skills will be applied to scene-work (using student actors) and the conceptualization and presentation of live and/or filmed scenes. Students will be required to view live and/or streamed theatre and film productions. **This course is subject to a course fee.**
Prerequisites:
THA 105 - Acting I with minimum grade of C or MSP 111 - Mass Media and Society with a minimum grade of C

THA 202 INTRODUCTION TO VOICE-OVER ACTING.....
Explore the world of voice-over acting in this introductory course. Learn essential techniques for character voices, commercial scripts, and narration. Explore technical aspects of recording and creating reels of your work. Students will explore such genres as animated characters, advertisements, audiobooks, and more. **This course is subject to a course fee.**
Prerequisites:
REA 011 - Fundamentals of College Reading or REA 017 -Vocabulary and Reading Comprehension Development II

THA 252 MUSICAL THEATRE: INTERPRETING SONG AND SCENE..... 3-2-2
This specialized course in theatre will explore the practical aspects of musical theatre performance and introduce the student to the history of the genre. Through the study of this American art form, students will expand their performance repertoire as well as their knowledge of groundbreaking shows and prolific composers. Students will workshop material throughout the semester in-class in front of their peers, rehearse and present songs and scenes, and will be required to view live and/or streamed theatre performances. **This course is subject to a course fee.**
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

PHYSICS

PHY 122 GENERAL PHYSICS II.....4-3-3
This course, designed for liberal arts and life science majors, is an algebra-based approach to the experimental and analytical study of oscillations, wave motion, acoustics, electrostatics, electric fields, basic direct-current circuits, magnetism, electromagnetic induction, light, and optics. The course also introduces students to the basic concepts of modern physics. **This course is subject to a course fee.**
Prerequisites:
PHY121 General Physics I (Algebra-based), is strongly recommended, but not required (Recommended)
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years, or High School Algebra II with a minimum grade of B within 5 years.

PHY 115 TECHNICAL PHYSICS..... 4-3-3
This course is a one-semester, algebra-based overview of topics in introductory physics designed for students in the life sciences. Topics include basic principles of motion, mechanics, statics, work and energy, fluid mechanics, sound and waves, thermal physics, electricity, magnetism, light, and optics. The weekly laboratory is designed to reinforce material introduced in lecture.
Prerequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years, or High School Algebra II with a minimum grade of B within 5 years.

PHY 120 INTRODUCTION TO ASTRONOMY.....4-3-3
Introduction to Astronomy is a one-semester college-level course in basic astronomy. The course may be used as a laboratory science elective with basic algebraic applications. The course explores a broad range astronomical concepts and principles in ten major areas: understanding the sky, apparent motions of the planets and the sun, telescopes and accompanying technology, basic structure and behavior of atoms, origin and analysis of light, origin of the solar system, internal structure and behavior of the sun, lifecycle of all stellar classes, origin and structure of galaxies, and cosmology. Throughout the course, emphasis is placed on the implementation of the scientific method, the evidence that astronomers use to support their conclusions, and the importance of astronomy. (Night-time observing is required). **This course is subject to a course fee.** This course is subject to a course fee. Refer to http://mc3.edu/adm-fin-aid/paying/tuition/course-f ees for current rates.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II with a minimum grade of C within 5 years
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years, or High School Algebra II with a minimum grade of B within 5 years.. May be taken prior or during course.

PHY 121 GENERAL PHYSICS I.....4-3-3
This course, designed for liberal arts and life science majors, is an algebra-based approach to the experimental and analytical study of Newtonian mechanics and thermal physics, emphasizing one-and two-dimensional kinematics, Newton's laws of motion, energy, momentum, conservation theorems, center of mass, rotational dynamics, static equilibrium, thermal properties of materials, calorimetry, the laws of thermodynamics, and heat engines. **This course is subject to a course fee.**
Prerequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years, or High School Algebra II with a minimum grade of B within 5 years.

PHY 151 PRINCIPLES OF PHYSICS I.....4-3-3
This calculus-based course, designed for physical science majors, presents in depth an experimental and analytical study of Newtonian mechanics and thermal physics, emphasizing one- and two-dimensional kinematics, dynamics, work and energy, conservation theorems, linear and angular momentum, collisions, rotational dynamics, statics, fluid mechanics, thermal properties of materials, laws of thermodynamics, kinetic theory of ideal gases, calorimetry, Carnot cycle, heat engines, and heat pumps. **This course is subject to a course fee.**
Corequisites:
MAT 189 - Calculus with a Review of Functions II or MAT 190 - Calculus and Analytic Geometry I. May be taken prior or during course.

PHY 152 PRINCIPLES OF PHYSICS II.....4-3-3
This calculus-based course, designed for physical science majors, presents in depth an experimental and analytical study of mechanical oscillators, simple harmonic motion, waves, acoustics, resonance, electrostatics, electric fields, DC and AC circuits, magnetism, electromagnetic induction, electromagnetic waves, including the laws of Coulomb, Faraday, Gauss, Ampere, and Kirchhoff. The course will also cover the nature of light, and geometrical and physical optics, as applied to reflection, refraction, polarization, interference, and diffraction. **This course is subject to a course fee.**
Prerequisites:
MAT 189 - Calculus With a Review of Functions II or MAT 190 - Calculus and Analytic Geometry I
PHY 151 - Principles of Physics I
Corequisites:
MAT 201 - Calculus and Analytic Geometry II. May be taken prior or during course.

SOUND RECORDING TECHNOLOGY

SRT 131 LIVE SOUND RECORDING AND REINFORCEMENT WORKSHOP I.....1-0-2
Live Sound Recording and Reinforcement Workshop I is a breakout course that introduces students to the principles and practice of live sound recording and reinforcement. The course focuses on system components, set-up, management, mixing and troubleshooting, as well as principles and concepts fundamental to live sound recording and reinforcement. Students participate in task-oriented workshops where they are introduced to the procedures, methods, and operation of live sound equipment. They obtain hands-on industry experience in recording and reinforcement at various local venues featuring live performances. **This course is subject to a course fee.**
Prerequisites:
MUS 140- Introduction to Digital Music Technology
SRT 104 - Introduction to Sound Recording Technology

SRT 137 THE LANGUAGE OF DIGITAL MEDIA..... 3-2-2
This course introduces students to the vocabulary, tools and fundamental techniques of manipulating digital audio and video content. Computer systems make it accessible for new users to take audio and digital information as input, to combine it using custom rules they develop and to produce new kinds of sounds, songs and interactive videos. **This course is subject to a course fee.**

SRT 159 INTRODUCTION TO MUSIC PRODUCTION.....3-2-2
The successor to the Artists-and-Repertoire executive of pop's golden era, the producer, stands at the point of intersection between a recording's human element and its increasingly advanced technological aspect. Often a producer's work results in a signature style or "sound"; if this sound is especially novel or musically persuasive, top recording artists may energetically seek the producer out. SRT 159 will explore the art and history of production as it relates to music past and present. Students will experience the original recordings of great songs recorded by great producers. Emphasis will be placed on the differences between producers and their individual styles, identifying key production techniques, and utilizing them in recordings that students will produce themselves. **This course is subject to a course fee.**
Prerequisites:
MUS 141 - Intermediate Digital Music Technology with a minimum grade of C
SRT 250 - Sound Recording Technology I with a minimum grade of C

SRT 230 SRT SOFTWARE WORKSHOP II..... 1-0-2
This breakout course is a continuation of SRT 130 and further explores specialized sound recording and music technology software. Students expand upon what they have learned in SRT 130, SRT 250 and MUS 141 by applying new techniques in recording, editing, sequencing and signal processing in current software applications. The course focuses on projects where the student is introduced to specialized software such as, Melodyne, Reason and Abelton Live. Students participate in task-oriented projects such as mixing, signal processing, organization of session files and creative thinking. **This course is subject to a course fee.**
Prerequisites:
SRT 130 - SRT Software Workshop I with minimum grade of C
MUS 141 - Intermediate Digital Music Technology with minimum grade of C
SRT 250 - Sound Recording Technology I with minimum grade of C

SRT 290 SOUND REC & MUSIC TECHNOLOGY CAPSTONE..... 1-0-2
Sound Recording and Music Technology Capstone provides opportunity for students to develop, produce and edit a major sound recording based project in this studio/lab workshop. Emphasis is placed on developing advanced skills in pitching, planning, organizing and executing sound recording projects from inception to completion. In this workshop students work collaboratively, discuss, conceive, create and produce a work that displays the culmination of their knowledge, experience and production skills. Students work as producers, engineers and directors as the leader of their production. As part of this course, students organize and finish a complete portfolio of all their work that includes a résumé, reel, personal statement and cover letter. **This course is subject to a course fee.**
Prerequisites:
SRT 159 - Recording Studio Production I
MUS 241 - The Business of Music
SRT 256 - Sound Recording Technology I

SRT 104 INTRODUCTION TO SOUND RECORDING TECHNOLOGY3-2-2
This course introduces the theory and operation of sound recording equipment for audio engineering video, and radio. Students are introduced to sound theory and the basics of recording and editing and then complete assignments in basic equipment operation. In addition, a series of critical listening assignments and workshops where voice, sound effects, and music are combined. **This course is subject to a course fee.**

SRT 231 LIVE SOUND RECORDING AND REINFORCEMENT WORKSHOP II.....1-0-2
This breakout course is a continuation of SRT 131 and further explores the principles and practice of live sound recording and reinforcement. The course focuses on system components, set-up, management, mixing and troubleshooting, as well as principles and concepts fundamental to live sound recording and reinforcement. Students participate in task-oriented workshops where they are introduced to the procedures, methods, and operation of live sound equipment. They obtain hands-on industry experience in recording and reinforcement at various local venues featuring live performances. **This course is subject to a course fee.**
Prerequisites:
SRT 131 - Live Sound Recording and Reinforcement Workshop I with minimum grade of C
SRT 159 - Introduction to Music Production with minimum grade of C
SRT 250 - Sound Recording Technology with minimum grade of C

SRT 259 MUSIC PRODUCTION.....3-2-2
The sound recording producer, as the person most immediately responsible for making a recording, often needs a strong grasp of various recording techniques as well as interpersonal skills which reflect an understanding of human psychology, as well as technical expertise. In the hip-hop & R&B genre, where the creation of a recording and the act of providing a distinctive sonic quality may be one and the same, therefore, artists are often listed as their own producers. SRT 259 will explore music production from both the artist's and producer's perspective, while distinguishing between the two perspectives. Students will create individual productions using various techniques introduced in class which will build upon what was learned in SRT 159. Emphasis will be placed on individual and group critique where students analyze and discuss the various student productions based on the theory and techniques of production. **This course is subject to a course fee.**
Prerequisites:
SRT 159 - Introduction to Music Production with a minimum grade of C
SRT 256 - Sound Recording Technology II

SRT 214 EVOLUTION OF SOUND RECORDING TECHNOLOGY..... 3-3-0
A survey of the history and evolution of Sound Recording and Music Technology and its impact on the recording industry, music, and society. Topics include the development of sound technology in the U.S. and Europe, the birth of the recording industry, and how recording sound influenced music and created current and emerging technologies. Emphasis is placed on understanding the evolution of sound recording technology and its impact on music and the recording industry.
Prerequisites:
SRT 104 - Introduction to Sound Recording Technology

SRT 256 SOUND RECORDING TECHNOLOGY II.....3-2-2
This course explores the theory and practice of sound recording technology and music production. Emphasis is placed on the technical application of multi-track music recording, mixing, editing, signal processing, and MIDI recording. Students oversee and participate in productions from the early stages of conception, through the process of distribution. Students expand their aesthetic analysis of sound through a series of critical listening assignments. **This course is subject to a course fee.**
Prerequisites:
SRT 250 - Sound Recording Technology I with a minimum grade of C

SRT 130 SRT SOFTWARE WORKSHOP I..... 1-0-2
SRT Software Workshop I is a breakout course that introduces students to specialized sound recording and music technology software. Students expand upon what they have learned in SRT 104 and MUS 140 by applying new techniques in recording, editing, sequencing and signal processing in current software applications. The course focuses on various processes within software packages such as Melodyne, Reason and ProTools. Students participate in task-oriented projects where they are introduced to the procedures, methods, and operation of specialized software. **This course is subject to a course fee.**
Prerequisites:
MUS 140 - Introduction to Digital Music Technology
SRT 104 - Introduction to Sound Recording Technology

SRT 250 SOUND RECORDING TECHNOLOGY I..... 3-2-2
This course introduces students to the theory and practice of sound recording technology and music production. Students are introduced to sound recording and engineering techniques including multi-track music recording, mixing, editing, and signal processing. Emphasis is placed on the procedures and processes of preparing for and carrying out a basic production from start to finish. Students act as the sound engineer and embody other production roles. Students work to expand their aesthetic understanding, analyze sound through engineering, mixing and participate in a series of critical listening workshops. **This course is subject to a course fee.**
Prerequisites:
SRT 104 - Introduction to Sound Recording Technology with a minimum grade of C

SRT 242 MUSIC BUSINESS APPLICATION.....3-3-0
This course is a continuation of studies begun in MUS 241 The Business of Music. Students will focus in the individual elements of the Music Business Marketing Plan created in the previous course and the realization of that plan with an in depth focus in online music marketing, promotion strategies, social media, legal structuring of the business and the financial considerations that go with running a business. Recommended but not required: MUS 140 (Introduction to Digital Music Technology) and/or MUS 240 (The Art and Business of Songwriting).
Prerequisites:
MUS 241 - The Business of Music
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
MAT 080 - Fundamentals of Mathematics, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years

SRT 297 SOUND RECORDING & MUSIC TECHNOLOGY INTERNSHIP.....3-0-15
This course is an internship in a college-approved sound recording and music technology facility. It provides an opportunity for students to both experience and increase their understanding of employment within the Sound Recording and Music Technology industry. The course requires students to obtain an internship at a sound recording facility where they work under the direct supervision of a supervisor in the facility for 150 total hours. In addition the student is required to maintain direct and consistent contact with an assigned Sound Recording and Music Technology Program faculty member. Students are rated by the employer on their job performance as part of the evaluation by the Sound Recording and Music Technology Program faculty member. **This course is subject to a course fee.**
Prerequisites:
SRT 104 - Introduction to Sound Recording Technology
MUS 140 - Introduction to Digital Music Technology
SRT 159 - Recording Studio Production I
SRT 250 - Sound Recording Technology I

PUBLIC HEALTH

PBH 200 PUBLIC HEALTH EDUCATION.....3-3-0
This course addresses the field of health education as it relates to Public Health. Theories, practices, and principles of health promotion and disease prevention within U.S. and global communities are discussed using an evidence-based thinking approach. The role of the Health Educator in assessing and planning for community based health challenges is explored.
Prerequisites:
PBH 102 - Communication in Public Health

PBH 101 INTRODUCTION TO PUBLIC HEALTH..... 3-3-0
This course is designed to provide an overview of public health in the United States and globally as well as engage students in dialogue about the discipline of public health, the profession, and the interdisciplinary approach to addressing population health issues. Students work together in small groups to analyze and evaluate health information, health care systems and the social determinants of health. The history of public health and its five core areas - epidemiology, biostatistics, environmental health, social behavioral health, and health policy - are explored.
Prerequisites:
ENG 010A - Basic Writing or ENG 011 - Basic Writing II or ESL 011 - Basic Writing II
REA 011 - Fundamentals of College Reading or REA 017 - Vocabulary and Reading Comprehension Development II

PBH 102 COMMUNICATION IN PUBLIC HEALTH..... 3-3-0
In this course the critical role of communication within public health is explored. The application of health communication theory to practice including risk communication, health literacy, and cross-cultural issues are examined. Using evidence-based thinking, a foundational understanding of theoretical and applied considerations in developing communication strategies designed to impact health and health behavior is developed.
Prerequisites:
PBH 101 - Introduction to Public Health
SPC 110 - Speech Communication or SPC 111 - Introduction to Speech Communication: Cross-Cultural Emphasis or SPC 120 - Public Speaking

PBH 201 PUBLIC HEALTH ADMINISTRATION IN THE U.S. HEALTHCARE SYSTEM.....3-3-0
This course is designed to provide a foundation for understanding the organization of the U.S. healthcare system. The role of public health in the administration of health care services and strategies to improve healthcare efficiency are critically examined. Also addressed is the quality and cost of health care and how policy, planning, ethical issues, and public and private systems can and do impact the health of individuals and populations.
Prerequisites:
PBH 200 - Public Health Education

PBH 202 ENVIRONMENTAL HEALTH.....3-3-0
This course examines the impact of the environment on human health and explores strategies used by public health professionals to minimize negative environmental effects. Environmental health hazards, exposure pathways and control, and the influence of climate change on individual and population health are discussed.
Prerequisites:
BIO 115 - Environmental Biology
PBH 102 - Communication in Public Health

CHEMISTRY

CHE 121 GENERAL CHEMISTRY - INORGANIC.....4-3-3
The course is designed to acquaint liberal arts majors with certain fundamental facts, principles, and techniques of chemistry with a view toward their application in modern life. Emphasis is placed on the scientific approach. This course is acceptable preparation for admission into Dental Hygiene, Nursing and MLT programs. **This course is subject to a course fee.**
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years. May be taken prior or during course.

CHE 152 PRINCIPLES OF CHEMISTRY II.....4-3-3
This course is a continuation of CHE 151. The topics covered are: intermolecular forces, solutions, kinetics, equilibria, electrochemistry, introductory thermodynamics, and nuclear chemistry. The laboratory includes labs in these areas with emphasis on acid-base titration. **This course is subject to a course fee.**
Prerequisites:
CHE 151 - Principles of Chemistry I

CHE 262 ORGANIC CHEMISTRY II.....4-3-3
This course is a continuation of CHE 261 and covers the nomenclature, structure, properties and reactions of many important classes of organic compounds including arenes, alcohols, ethers, epoxides, thiols, sulfides, aldehydes, ketones, carboxylic acids, nitriles, carboxylic acid derivatives, amines, carbohydrates, amino acids and lipids. Stereochemistry, reaction mechanisms, syntheses and spectroscopy are stressed. The laboratory demonstrates syntheses discussed during lecture. **This course is subject to a course fee.**
Prerequisites:
CHE 261 - Organic Chemistry I

CHE 122 GENERAL CHEMISTRY - ORGANIC.....4-3-3
This course emphasizes introductory Organic Chemistry and Biochemistry. The examination of the structure and reactivity of the major Organic and Biological classes of compounds will include an exploration of industrial and consumer oriented applications. This course is most appropriate for students with a background of basic Inorganic Chemistry and an interest in expanding their view of fundamental Chemistry or establishing a firm foundation for further study involving Biology or Allied Health coursework. This course is acceptable preparation for admission into Dental Hygiene and Nursing programs, and is also a continuation of CHE 121. **This course is subject to a course fee.**
Prerequisites:
High school Chemistry or CHE 121 - General Chemistry I
Corequisites:
MAT 090 - Fundamentals of Algebra, or MAT 011 - Beginning Algebra, or MAT 011B - Beginning Algebra with Review of Arithmetic with a minimum grade of C within 5 years. May be taken prior or during course.

CHE 131 CHEMISTRY FOR TECHNOLOGY I.....4-3-3
A general course in physical-inorganic and organic chemistry. Emphasis will be placed on the theoretical and descriptive attributes of chemistry, so as to form a sound basis for the understanding of the analytical and biological chemistry and their application to technology. Laboratory experiments will be performed so as to facilitate an understanding of the chemical principles and experimental techniques developed in the program. **This course is subject to a course fee.**
Prerequisites:
High School Chemistry or CHE 121 - General Chemistry I

CHE 132 CHEMISTRY FOR TECHNOLOGY II.....4-3-3
This course will present a brief overview of Nuclear Chemistry. The major portion of the semester will involve a survey of introductory Organic and Biochemistry. Topics will include the nomenclature, structure, physical properties, and chemical reactions of the major classes of Organic and Biological compounds. **This course is subject to a course fee.**
Prerequisites:
CHE 131 - Chemistry for Technology I

CHE 151 PRINCIPLES OF CHEMISTRY I.....4-3-3
This course is a study of the fundamentals of general chemistry for the science major. An emphasis is placed on atomic structure, molecular structure, bonding, periodic law, reactions and weight relations, gases, thermochemistry and an introduction to organic chemistry. The laboratory includes experiments from topics discussed in lecture. **This course is subject to a course fee.**
Prerequisites:
High school Chemistry within the last 5 years or CHE 121 - General Chemistry - Inorganic
Corequisites:
MAT 161 - Precalculus I or MAT 170 - College Algebra and Trigonometry. May be taken prior or during course.

CHE 261 ORGANIC CHEMISTRY I.....4-3-3
This course covers the nomenclature, structure, properties and reactions of many important classes of organic compounds. Stereochemistry, reaction mechanism and syntheses are stressed. The laboratory demonstrates basic techniques and syntheses discussed during lecture. **This course is subject to a course fee.**
Prerequisites:
CHE 152 - Principles of Chemistry II

EMERGENCY MANAGEMENT PLANNING

EMP 250 TERRORISM & COUNTER-TERRORISM.....3-3-0
Terrorism in the 21st century is a global phenomenon. This course is designed to provide a comprehensive and interdisciplinary survey of the history, theory, and modern-day political manifestations of terrorism and counter-terrorism. Terrorism will be evaluated in terms of its underlying cultural, economic, political, and psychological root causes. Effective counteraction and profiling requires empathetic explorations and analyses by students into causes and mind-sets. Counter-terrorism strategies and tactics will also be examined specifically in light of the legal and procedural safeguards that are fundamental to the maintenance of liberal democratic social and political values.
Prerequisites:
A passing grade in at least one introductory level course in any of the following: Anthropology, Criminal Justice Studies, Economics, Geography, History, Political Science, Psychology or Sociology

FIRST YEAR EXPERIENCE

FYE 101 FIRST YEAR EXPERIENCE.....3-3-0
An introductory course that involves familiarization with college resources, culture, policies and technology. This course focuses on personal development, student success strategies and career exploration. Throughout the semester, students will use technology to engage in self-assessment and reflection and examine transfer and career options. This course also includes individual student coaching by the course instructor.
Prerequisites:
ESL 010 - Basic Writing I for students who place into ESL courses

READING/STUDY SKILLS

REA 010 ELEMENTS OF READING.....0-3-0
Elements of Reading is a developmental course designed to help students improve basic academic reading strategies including word analysis, vocabulary building, literal and interpretative comprehension. An appreciation of reading as a basic tool of learning will be fostered. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
Reading placement test recommendation of REA 010

REA 017 VOCABULARY & READING COMPREHENSION DEVELOPMENT II.....0-3-0
Vocabulary and Reading Comprehension Development is designed to prepare advanced non-native English speaking students for the rigors of a college curriculum. The course focuses on comprehension strategies, critical reading and thinking, information literacy, and vocabulary development. There is a strong emphasis on vocabulary development. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
REA 014 - Vocabulary and Reading Comprehension Development I with a minimum grade of C

REA 011 FUNDAMENTALS OF COLLEGE READING.....0-3-0
This is a course designed to develop higher level reading comprehension skills necessary at the college level. The course focus is on comprehension strategies, critical reading and thinking, information literacy, and vocabulary development. The development of a more extensive vocabulary is emphasized. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
REA 010 - Elements of Reading with a minimum grade of C

REA 014 VOCABULARY AND READING COMPREHENSION DEVELOPMENT I.....0-3-0
This reading course, designed for non-native English speaking students, focuses on development of academic reading skills, literal and interpretative comprehension, and vocabulary development. This course prepares non-native English speaking students to take college courses leading to a degree, a certificate, or to transfer. This precollege level course cannot be used to fulfill a degree requirement nor is it calculated in a student's Grade Point Average (GPA); however, the credits billed will be applied towards a student's financial aid enrollment status and enrollment status reported to the National Student Clearinghouse.
Prerequisites:
ESL 006 - English as a Second Language II with a minimum grade of C

SURGICAL TECHNOLOGY

SUR 205 SURGICAL TECHNOLOGY III.....10-6-16
This course is designed to build on the knowledge gained in SUR 105 and SUR 106. Fundamental team skills in the environment of the operating room are applied to various specialties of surgery. Patient, equipment, and supply preparation are demonstrated in the following types of surgeries: genitourinary, cardio-thoracic, vascular, and orthopedic. The patient preparation, instrument and equipment set-up and assembly are demonstrated. The actual procedural stages for each basic surgery within the specialties are presented and reinforced in the clinical setting. The concurrent clinical laboratory and site experience afford the student the opportunity to directly apply didactic information. The patient profile is also discussed with consideration given to age specific needs during the surgical intervention. Response to death and dying in the operating room is introduced with exploration of various coping strategies. Co morbidities are described. Employment skills and interview techniques are addressed with development of a professional resume. **This course is subject to a course fee.**
Prerequisites:
SUR 106 - Surgical Technology II
Corequisites:
ENG 102 - English Composition II or ENG 115 - Writing for Technical Communication or ENG 117 - Writing for Business and Industry. May be taken prior or during course.

SUR 206 SURGICAL TECHNOLOGY IV.....7-3-16
This course is designed to extend the knowledge of the Surgical Technologist. It is built on the knowledge gained from SUR 105, SUR 106, and SUR 205. Essential team skills in the operating room environment are applied to various surgical specialties and disaster/public health emergencies. Patient, equipment, and supply preparation are demonstrated in the following types of surgeries: advanced orthopedics, cardiovascular, minimally invasive cardiac, and trauma surgery. The patient preparation, instrument and equipment set-up and assembly are demonstrated. The actual procedural stages for each surgery within the specialties are presented and reinforced in the clinical setting. The concurrent clinical experience affords the student the opportunity to directly apply didactic information. **This course is subject to a course fee.**
Prerequisites:
SUR 205 - Surgical Technology III
Corequisites:
SOC 244 - Sociology of Death and Dying. May be taken prior or during course.

SUR 106 SURGICAL TECHNOLOGY II.....8-6-8
This course is designed to build on the knowledge gained in SUR 105. Fundamental team skills and knowledge of medical terminology are enhanced in SUR 106 and applied in the environment of the operating room and various specialties of surgery. Basic concepts of electricity and specialty equipment are introduced with the emphasis on safe patient care in the operating room. Patient, equipment, and supply preparation are demonstrated in the following types of surgeries: ear, nose, throat, mouth, jaw, and eye. The specialty of cosmetic and reconstructive plastic surgery is presented. Students are exposed to neurosurgery of the spinal column and the brain. The actual procedural stages for each basic surgery within the aforementioned specialties are presented and reinforced in the clinical setting. The concurrent clinical laboratory experience during the actual surgical interventions affords students the opportunity to directly apply didactic information. **This course is subject to a course fee.**
Prerequisites:
BIO 132 - Human Anatomy and Physiology II with a minimum grade of C within five years
SUR 105 - Surgical Technology I
Corequisites:
BIO 140 - Microbiology and Immunology. May be taken prior or during course.

SUR 105 SURGICAL TECHNOLOGY I..... 7-6-4
This course is designed to introduce the student to the role of the Surgical Technologist in the health practice environment. Fundamental team skills are developed to assist the student to function during the care of patients having surgery. Communication utilizing medical terminology and basic computer functions is demonstrated and discussed in relation to its role in the operating room. The principles of aseptic techniques are introduced and demonstrated with the inclusion of the methods of sterilization, instrument identification, surgical set-up and instrumentation handling. Patient, equipment, and supply preparation are demonstrated and applied to the procedural stages, with basic concepts of robotics presented in relation to General, Colorectal, and Gynecologic/Obstetric Surgery. Accountability, responsibility and commitment to the surgical technologist profession are discussed. Concurrent clinical laboratory experiences introduce the student to the practice setting in the operating room as well as the sterile processing area. **This course is subject to a course fee.**
Prerequisites:
MAT 090 - Fundamentals of Algebra or MAT 011 - Beginning Algebra with a minimum grade of C within 5 years
BIO 131 - Human Anatomy and Physiology I with a minimum grade of C within five years
ENG 101 - English Composition I
CMS/SPC 110 Speech Communication, CMS/SPC 113 Voice and Articulation , CMS/SPC 120 Public Speaking, CMS/SPC 230 Communication in Organizations or THA 105 Introduction to Acting I: Improvisation and Fundamentals
Final High School transcript with graduation date or equivalent on file at the College.
Corequisites:
BIO 132 - Human Anatomy and Physiology II. May be taken prior or during course.

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MONTGOMERY COUNTY COMMUNITY COLLEGE (PA) Legacy Fund

The MCCC (PA) Legacy Fund:
Supports students financially.

Supports academic programs, faculty development and campus initiatives that enhance the quality and accessibility of a MCCC education.

Promotes community awareness, engagement and partnerships that further the mission and values of the College.

Facilitates capital projects and improvements that benefit the College and its students.

Encourages philanthropic giving and long-term financial sustainability through endowments and planned-giving programs.

Foundation objectives:

- To identify and develop meaningful long-lasting relationships that result in first and increased levels of private philanthropy from individuals, corporations, and foundations primarily through annual, major and planned
- To create and grow an engaged constituency of volunteer leadership, alumni, faculty and staff, the business community, and friends in Montgomery County and beyond who desire to invest in the College through the Foundation
- To raise funding primarily for the support of scholarships and internships for deserving students, teaching and learning initiatives, facility enhancements, community outreach, and student support programs

MONTGOMERY COUNTY COMMUNITY COLLEGE ALUMNI ASSOCIATION

The Office of Career & Alumni Engagement offers a comprehensive career counseling and resource center designed to engage both students and alumni as active participants in their career development. We are committed to aiding all MCCC students and alumni to help develop, evaluate and effectively initiate and perpetuate their career and educational goals; while encouraging alumni to stay connected or reconnect with the College community through alumni focused networking programs and events.

Our services include but are not limited to:

- Individual career coaching
- Personal and professional development
- Employment & internship opportunities
- Career-related seminars & workshops
- Career fairs and networking events
- Alumni-specific networking opportunities and events
- Career Closet

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ACADEMIC CALENDAR

FALL SEMESTER 2026

Day and Evening Classes Begin..... 9/2/26
Labor Day – No Classes.....9/7/26
Thanksgiving Holiday – No Classes.....11/25-11/29/26
Classes End.....12/14/26
Reading Day for Finals.....12/15/26
Final Examinations..... 12/16-12/22/26

FALL SESSION DATES:

15-Week Session.....9/2-12/22/26
1st 7-Week Session..... 9/2-10/21/26
2nd 7-Week Session..... 10/28-12/20/26

WINTER SEMESTER 2026-2027

Classes Begin.....12/24/26
New Year's Day Holiday – No Classes.....1/1/27
Classes End.....1/17/27

WINTER SESSION DATES:

Winter Session..... 12/24/26-1/17/27

SPRING SEMESTER 2027

Day and Evening Classes Begin..... 1/20/27
Spring Break – No Classes.....3/15-3/21/27
Classes End.....5/4/27
Reading Day for Finals.....5/5/27
Final Examinations..... 5/6-5/12/27
Commencement.....5/20/27

SPRING SESSION DATES:

15-Week Session..... 1/20 - 5/12/27
1st 7-Week Session..... 1/20-3/9/27
2nd 7-Week Session..... 3/22-5/9/27

SUMMER SEMESTER 2027

Day and Evening Classes Begin..... 5/17/27
Memorial Day Holiday – No Classes..... 5/31/27
Juneteenth Observance - No Classes.....6/18/27
Independence Day Holiday – No Classes.....7/4-7/6/27
Classes End.....8/27/27

* No final exam period possible.

SUMMER SESSION DATES: 2027

14-Week Session..... 5/17 - 8/27/27
1st 6-Week Session.....5/17 - 6/29/27
2nd 6-Week Session.....7/7 - 8/17/27

For more than 50 years, Montgomery County Community College has grown with the community to meet the evolving educational needs of Montgomery County. The College's comprehensive curriculum includes more than 100 associate degree and certificate programs, as well as customized workforce training and certifications. Students enjoy the flexibility of learning at the College's thriving campuses in Blue Bell and Pottstown.

An Achieving the Dream (AtD) Leader College, the institution is positioned at the vanguard of national efforts to increase completion, improve learning outcomes, and remove barriers to access. The College is also recognized regionally and nationally for its sustainability leadership, work with military veterans, community service and service learning opportunities, and use of classroom technology.

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