

# CENTRAL MAINE COMMUNITY COLLEGE

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# Academic Calendar 2019 - 2020

## Fall 2019

Thursday, August 22 .....	Faculty & Staff Meetings
Monday, August 26 .....	Fall semester opens
.....	First day of classes: Fall I & II
Friday, August 30 .....	Last day to drop a Fall I course without record
.....	Labor Day - No classes
Monday, September 2 .....	Last day to add courses without permission from instructor
Tuesday, September 3 .....	Last day to withdraw from a course and receive 100% refund
.....	.....
Monday, September 9 .....	Last day to drop a course without record
.....	Last day to withdraw from a course and receive a 50% refund
Friday, September 27 .....	Last day to withdraw from a Fall I course without academic penalty
Saturday, October 12 .....	Fall Recess begins (after all classes)
.....	<i>The College is open during break</i>
Wednesday, October 16 .....	<i>There are no classes October 14 and 15</i>
Friday, October 18 .....	Classes resume
.....	Mid-semester and last day to drop courses without academic penalty
Saturday, October 19 .....	End of Fall I (after all classes)
Monday, October 21 .....	Beginning of Fall II
.....	Final Fall I grades due 48 hours after last class
Friday, October 25 .....	Last day to drop a Fall II course without record
Monday, November 4 .....	Spring registration opens for current matriculated students with 30 or more credits
.....	.....
Monday, November 11 .....	Veterans Day - No classes
Tuesday, November 12 .....	Spring registration opens for current matriculated students with fewer than 30 credits
.....	.....
Friday, November 15 .....	Last day to withdraw from a Fall II course without academic penalty
Monday, November 25 .....	Spring registration opens for non-matriculated and new students
Tuesday, November 26 .....	Thanksgiving Recess begins (after all classes)
.....	<i>No classes. The College is open</i>
.....	<i>November 26 and November 27</i>
.....	<i>The College is closed on</i>
Monday, December 2 .....	<i>November 28 and November 29</i>
Monday, December 16 .....	Classes resume
.....	End of Semester: Fall and Fall II (after all classes)
Wednesday, December 18 .....	Final grades are due 48 hours after last class

## Spring 2020

Wednesday, January 15 .....	Faculty and staff meetings
Thursday, January 16 .....	Faculty and staff meetings
Tuesday, January 21 .....	Spring semester opens - first day of classes Spring and Spring I
.....	Last day to drop a Spring I course without record
Monday, January 27 .....	Last day to withdraw from a course and receive 100% refund; Last day to add a class without permission from instructor
Tuesday, January 28 .....	Last day to drop without record; Last day to withdraw from a course and receive 50% refund
.....	Last day to drop Spring I courses with out academic penalty
Monday, February 3 .....	Presidents' Day - No classes
Friday, February 14 .....	Fall and summer registration opens for current matriculated students with 30 or more credits
Monday, February 17 .....	.....
Monday, March 2 .....	.....

Monday, March 9 .....	Fall and summer registration opens for current matriculated students with 30 or fewer credits
.....	Mid-semester and last day to drop courses without academic penalty
Friday, March 13 .....	Spring Recess begins (after all classes)
Saturday, March 14 .....	End of Spring I (after all classes)
.....	<i>The College is open during Spring Recess</i>
Monday, March 16 .....	Final Spring I grades are due 48 hours after last class
Monday, March 23 .....	Classes resume
.....	First day of classes: Spring II
.....	Fall registration opens for new students
Friday, March 27 .....	Last day to drop a Spring II course without record
Monday, April 6 .....	Summer registration opens for non-matriculated students
Friday, April 17 .....	Last day to drop Spring II courses with out academic penalty
Monday, April 20 .....	Patriots Day - No classes
Monday, May 11 .....	End of semester: Spring and Spring II (after all classes)
Wednesday, May 13 .....	Final grades are due 48 hours after last class
Thursday, May 14 .....	Commencement
.....	Androscoggin Bank Colisée, Lewiston, ME

## Summer 2020

### Full-Term (13 weeks)

Monday, May 18 .....	First day of classes: Summer
Monday, May 25 .....	Memorial Day - No classes
Tuesday, May 26 .....	Last day to add courses without permission from instructor; Last day to withdraw from a course and receive a 100% refund
.....	Last day to withdraw from a course and receive a 50% refund
Monday, June 1 .....	Independence Day Observed
Friday, July 3 .....	No classes
Saturday, July 4 .....	Independence Day
.....	No classes
Monday, July 6 .....	Fall registration opens for non-matriculated students
Saturday, August 15 .....	End of Summer
Monday, August 17 .....	(after all classes)
.....	Final grades are due 48 hours after last class

### Summer I (7 weeks)

Monday, May 18 .....	First day of classes: Summer I
Wednesday, May 20 .....	Last day to add courses without permission from instructor; Last day to withdraw from a course and receive a 100% refund
.....	Last day to withdraw from a course and receive a 50% refund
Friday, May 22 .....	Memorial Day - No classes
Monday, May 25 .....	End of Summer I (after all classes)
Monday, June 29 .....	Final grades are due 48 hours after last class
Wednesday, July 1 .....	.....

### Summer II (7 weeks)

Monday, July 6 .....	First day of classes: Summer II
Wednesday, July 8 .....	Last day to add courses without permission from instructor; Last day to withdraw from a course and receive a 100% refund
.....	Last day to withdraw from a course and receive a 50% refund; Fall registration opens for non-matriculated students
Friday, July 10 .....	End of Summer II (after all classes)
.....	Final grades are due 48 hours after last class
Saturday, August 15 .....	.....
Monday, August 17 .....	.....

# General Information



## A Message from the President

We appreciate this opportunity to show you Central Maine Community College. Through the pages in this catalog you can learn more about the programs, courses, and services available to you. While we are proud of the offerings we present to you here, we cannot show you on mere printed pages the human dimension of our College—a caring faculty and a supportive staff.

There are many places you can go to learn, but there are few where you can find people who are as dedicated to serving you as the faculty and staff at this College. Counselors and advisors will help you select a program and register. Instructors will work with you inside and outside of class to develop your full potential. Financial aid specialists will help secure the resources you need to pay for your education. A career and transfer services advisor will help you decide on a career path or where to continue your education. You will find caring and supportive people wherever you turn.

Please accept our personal invitation to visit the College, to walk through our facilities, to see our state-of-the-art equipment, but most of all to meet the people who will help you open the doors to your future.

Scott E. Knapp  
President

## Accreditation

Central Maine Community College is accredited by the New England Commission of Higher Education (formerly the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges, Inc.).

Accreditation of an institution of higher education by the Commission indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the Commission is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding the accreditation status by the Commission should be directed to the administrative staff of the institution. Individuals may also contact:

New England Commission of Higher Education  
3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514  
(781) 425 7785  
info@neche.org

## Notice of Non-Discrimination

Central Maine Community College [Central Maine Community College] does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, disability, or age or marital, parental or veteran's status in its programs and activities. Inquiries about the college's compliance with, and policies that prohibit discrimination on, these bases may be directed to: Barbara Owen, Affirmative Action Officer, Jalbert Hall, Central Maine Community College, 1250 Turner Street, Auburn, ME 04210. Telephone: 207-755-5100 or (800) 891-2002. Maine Relay Service: 800-457-1220. Fax: 207-755-5491. Email: bowen@Central Maine Community College.edu. Internet: www.cmcc.edu. United States Department of Education, Office for Civil Rights, 33 Arch Street, Suite 900, Boston, MA 02110. Telephone: 617-289-0111. TTY/TDD: 617-289-0063. Fax: 617-289-0150. Email: OCR.Boston@ed.gov. Internet: <http://www2.ed.gov/about/offices/list/ocr/index.html>. Maine Human Rights Commission (MHRC), 51 State House Station, Augusta, ME 04333-0051. Telephone: 207-624-6050. TTY/TDD: 207-624-6064. Fax: 207-624-6063. Internet: <http://www.state.me.us/mhrc/index.shtml>; and/or Equal Employment Opportunity Commission, 475 Government Center, Boston, MA 02203. Telephone: 617-565-3200 or 1-800-669-4000. TTY: 617-565-3204 or 1-800-669-6820. Fax: 617-565-3196. Internet: <http://www.eeoc.gov/>.

# General Information

## **About Central Maine Community College**

**A public institution of higher learning, Central Maine Community College (CMCC) was established by the Maine State Legislature to provide associate degree and certificate programs directed at the educational, occupational and technical needs of the State's citizens and the workforce needs of the State's employers. It is one of seven colleges in Maine's Community College System. Others colleges are located in Bangor, Calais, Fairfield, Presque Isle, South Portland, and Wells.**

## **Governance**

The Maine Community College System (MCCS) is governed by a Board of Trustees appointed by the Governor. Policies and decisions of the Board are implemented through the MCCS President, who has an office in Augusta and serves as the System's chief executive officer.

The President of the College serves as the chief executive officer and official spokesperson for the College.

## **Vision**

Central Maine County Community College is committed to enduring excellence as a comprehensive community college; dedicated to student academic, career and personal success in preparation for the career opportunities of tomorrow; focused on continuous self-evaluation and improvement; and strengthening the open-door philosophy of educational opportunity.

## **Mission**

Central Maine Community College provides quality, accessible college education and lifelong learning opportunities by offering career and technical education; education for transfer to the baccalaureate level; and services to support economic development and community vitality.

To achieve this mission, Central Maine Community College offers:

- Career and technical education that prepares students for employment and continued education;
- Education that prepares students for transfer to the baccalaureate level;
- Lifelong learning opportunities to area residents to improve workplace skills, enhance job and career prospects, and enrich their lives;
- Services to support economic development and community vitality; and
- The highest quality services while maintaining the broadest accessibility to our students and community.

## **Program Advisory Committees**

Each program offered at Central Maine Community College has an advisory committee, the members of which are representative of the community and the industries that employ graduates of the College. In addition to assisting with program planning and development, advisory committee members provide helpful information about jobs and employment trends, educational opportunities, and serve as an important communications link between industry and the community.

## **CM Education Foundation and Education Advisory Council**

The Central Maine Community College Foundation, or CM Education Foundation as it is known, is a community-based, nonprofit corporation that has as its sole mission "support for Central Maine Community College and its students."

The Foundation is governed by a volunteer Board of Directors made up of community and business leaders.

The Foundation has contributed over \$1,200,000 to Central Maine Community College for scholarships, program improvements and capital projects.

The Foundation Board of Directors also serves as the Education Advisory Council, providing a forum for matters that have a broad impact on the College. Specific responsibilities of the Council include reviewing proposals for major changes in policies and programs, participating in the development of long range plans, and assisting with the interpretation of College goals, programs and needs to the general public. Members of the Education Advisory Council are representative of the constituencies served by the College.

## **Transfer Programs and Agreements**

Most Central Maine Community College credit courses are accepted for transfer at other colleges and universities, although they may not apply to a specific program of interest. In addition, Central Maine Community College has agreements with several institutions which allow graduates of some College associate degree programs to transfer with advanced standing in specific baccalaureate programs. In order to ensure optimal transfer of credits to upper division programs, students should work corroboratively with their academic advisor and the Director of Placement and Transfer Services to plan a course of study that meets their goals.



# General Information

To facilitate the transfer of courses, students should identify, as soon as possible, the upper division program and institution in which they plan to enroll. A complete listing of transfer agreements may be found on the College website at [https://cmconnect.cmcc.edu/ICS/Campus\\_Life/Campus\\_Groups/Transfer\\_Services](https://cmconnect.cmcc.edu/ICS/Campus_Life/Campus_Groups/Transfer_Services).

## History and Growth of Central Maine Community College

Central Maine Community College traces its origin to 1963 when the 101st Maine Legislature submitted to public referendum the question of establishing a postsecondary vocational training program in Androscoggin County. The voters of Maine gave their consent for such an institution in November 1963, and in September 1964, Androscoggin State Vocational Institute opened in the facilities of a former automobile dealership at 385 Main Street in Lewiston.

In 1965 the State Board of Education renamed the institution Central Maine Vocational Technical Institute (CMVTI) and in January 1966, CMVTI was moved to the present campus on Turner Street in Auburn.

The Legislature changed the name of Central Maine Vocational Technical Institute to Central Maine Technical College (CMTC) in 1989 to more accurately reflect CMTC's role and status as a comprehensive institution of higher education. On July 1, 2003, CMTC became Central Maine Community College, offering transferable degrees in the arts and sciences as well as career and technical programs.

During its first year, the institution enrolled 48 students in four programs (Auto Mechanics, Building Construction, Industrial Electricity, and Architectural Drafting) and was staffed by 13 persons, of whom seven were instructors. The first graduating class, consisting of six students, received diplomas in June 1965.

Today there are approximately 3,000 students enrolled in Central Maine Community College courses. In addition, many area residents participate each year in conferences, courses and programs offered through the Center for Workforce and Professional Development division of the College. The students are served by approximately 150 faculty and staff members. Each year approximately 500 students graduate; most of them receive associate degrees, while others earn certificates.

The College offers educational opportunities for both transfer to baccalaureate programs and career preparation. Associate in arts and associate in science degrees are designed as the first two years of a more advanced degree. The associate in applied science degrees and certificates are designed to prepare students for direct entry into the workplace. All graduates are expected to have a set of core competencies that will enable them to be qualified and productive members of the workforce and to continue their education after they graduate and throughout their lives.

## Accreditation and Program Certifications

As the College has grown in size, it has also grown in quality. In December 1976, the New England Association of Schools and Colleges,

Inc. (NEASC) granted Central Maine Community College initial accredited status (effective 10-8-76). Continued accreditation through 2028 was most recently granted in 2018 by the New England Commission of Higher Education (formerly NEASC). In 1978 the Maine State Board of Education authorized the College to confer associate in applied science degrees beginning in January 1979. In September of 1995 the Maine Technical College System authorized the College to grant associate in science degrees. In 1998 the associate in arts degree, which mirrors the first two years of many bachelors degree programs, was authorized.

In 1986, the Automotive Technology program first received continuing full Master Certification in all eight specialty areas from the National Institute for Automotive Service Excellence (ASE), 101 Blue Seal Drive, SE, Suite 101, Leesburg, VA 20175, telephone (703) 669-6650, making it the first program in New England to be so recognized. Continued certification was awarded in 2004. The Automotive Technology program was granted reaccreditation by the National Automotive Technicians Education Foundation (NATEF) in 2016.

In 2003, the Ford ASSET program received continuing continued Master Certification in all eight specialty areas from the National Institute for Automotive Service Excellence (ASE), 101 Blue Seal Drive, SE, Suite 101, Leesburg, VA 20175, telephone (703) 669-6650.

The Nursing program is approved by the Maine State Board of Nursing, 158 State House Station, 16 Capital Street, Augusta, Maine 04333-0158, telephone (207) 287-1133. In addition, the Associate Degree Nursing program was granted initial accreditation by the National League for Nursing Accrediting Commission, 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326, telephone (404) 975-5000. The program was reaccredited in July 2012.

Central Maine Community College seeks and accepts accreditation, certification or recognition of its programs only when those designations are consistent with the policies and plans of the College. The College does not guarantee that those designations will be maintained in the future.

## Campus Growth

Central Maine Community College's physical facilities have been enlarged to keep pace with increased demand for programs and services. In 1967, an addition was completed to the original instructional facility and the first residence hall was constructed.

In January 1969, another addition, an extension of the North Wing, was completed and later in the year the entire instructional complex was designated by the State Board of Education as the Louis Jalbert Industrial Center, now Jalbert Hall.

The portion of Jalbert Hall known as the South Wing was constructed in 1972 and expanded in 1979 and 1986. Jalbert Hall now encloses 175,750 sq. ft. (over 4 acres) under a single roof.

In 1975 two apartment style dormitory buildings and the present dining room/kitchen facilities were ready for use.

# General Information

A building to house the Culinary Arts program was completed in 1989.

In November of 1989 Maine voters authorized capital bonding for the 40,000 sq. ft., Geneva A. Kirk Hall, which houses Nursing, and Life Sciences and Allied Health programs; science laboratories; gymnasium; fitness center; and the Center for Workforce and Professional Development division. The building was dedicated for use on May 6, 1993.

Bonding to fund the new Lapoint Center was approved by the voters in 1999. The Center, which opened in fall 2002, houses state-of-the-art classrooms as well as additional office facilities, student use areas and library access facilities.

To accommodate the demand for additional on-campus housing, Central Maine Community College constructed a new residence hall which opened in the fall of 2007.

A new nursing simulation lab was completed in the fall of 2008, the Jalbert lecture hall was completely renovated in the spring of 2009, and a major renovation of the 400/500 wing of Jalbert was completed in the spring of 2010.

A new, state-of-the-art Criminal Justice/CSI Lab in Jalbert Hall was completed in early 2012. The ground level of Jalbert Hall was completely renovated in the fall 2012 to include new classrooms and labs for the Graphic Communications program; a new and expanded college store; and a new central services center.

A new academic building, The Tower, connected to Jalbert Hall, was completed in August, 2015. This building houses case-study rooms, presentation and seminar rooms, an organic chemistry lab, a reception area, a conference room and admissions office.

The Precision Machining Technology wing was renovated and expanded in 2017 and renamed the Gene Haas Precision Machining Technology Center.

In the spring/summer of 2019, the new Esports Arena was completed; the Nursing lab was renovated and expanded; the Plumbing/HVACR lab was completed; and the new multi-sport, synthetic turf athletic complex was completed.

## Location

Located in Auburn at 1250 Turner Street just two miles from the center of the city, Central Maine Community College occupies a picturesque 135-acre site overlooking and bordering Lake Auburn—an ideal setting for learning and recreation. As Maine's second largest urban center, Lewiston-Auburn offers numerous opportunities for social, recreational, cultural and educational activities. Auburn is located in the south central region of Maine and is the Gateway to the Western Mountains. It is midway on the Maine Turnpike between Maine's capital, Augusta and its largest city, Portland—approximately 35 miles from each city.

## Off-Campus Locations

In addition to the main campus in Auburn, (Androscoggin County) Central Maine Community College also serves Franklin, Lincoln, and Oxford Counties.

In Oxford County, the College offers courses at Oxford Hills Comprehensive High School in South Paris. Courses are also offered at other sites in Oxford County.

## Oxford Hills Comprehensive High School/Western Maine

### University and Community College Center

232 Main Street  
South Paris, ME 04281  
Contact: (207) 755-5255

In Lincoln County, courses are delivered at the Central Maine Community College/Lincoln County Healthcare Education Center in Damariscotta.

### Central Maine Community College/ Lincoln County Healthcare Education Center

66 Chapman Street  
Damariscotta, ME 04543  
Contact: (207) 755-5480

In Franklin County, courses are delivered at the Mt. Blue Learning Center.

### Mt. Blue Learning Center

129 Seamon Road  
Farmington, ME 04938  
Contact: (207) 755-5384

# Admissions

**Central Maine Community College welcomes applications from all persons whose academic record and personal qualifications suggest that they may benefit from enrollment in any of the programs offered. Central Maine Community College maintains a rolling admissions policy for most of its programs, allowing candidates to apply and be considered for acceptance throughout the year. Prospective students will be considered for the next matriculating class on a first come, first served basis. All programs begin in September. January admission is possible for most programs and for students who wish to begin with primarily general education courses. Contact the Office of Admissions for more details.**

Graduation from an approved high school or passing scores on the General Educational Development (GED) Examination/HiSET offered by the Maine Department of Education or other state department of education is required for admission to the College. Applicants may also be required to meet special admission requirements and prerequisites established for the specific program of interest. Central Maine Community College works in active partnership with regional and statewide high schools and adult education centers in order to help students prepare for college requirements.

*Note to Nursing Program Applicants: Students for this program are selected on a competitive basis once per year, to begin each fall semester. Application materials are accepted between **September 1st and February 28th**, and selection decisions are made beginning in February and ongoing until the program is full.*

*Note to 100% Online Program Applicants: The College has several programs that are available 100% online. The priority enrollment deadline for online programs is May 15 for a fall start, Nov. 1 for a spring start, and March 1 for a summer start. This means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit and completion of online orientation are done by the deadline in order to get seats in online courses. It is possible to be admitted to a 100% online program after May 15, but availability of online courses is not guaranteed for the first semester.*

## Admissions Process

Applications are evaluated after applicants have submitted the following:

1. A properly completed Application for Admission and non-refundable \$20.00 application fee.
2. An official high school transcript for all years attended, including at least the first marking period of the senior year (for current high school seniors). A final transcript will be needed for all graduating seniors prior to the first day of classes.  
**or**  
Official GED test scores, for non-high school graduates. Students who have been matriculated at a regionally accredited college or university and have earned at least 15 college-level credits do not need to supply their high school transcript or GED.

3. Official college transcript(s) from all colleges attended. A final transcript with final grades will be needed prior to the first day of classes.
4. Documentation of all program prerequisites. Prerequisites may appear on the high school or adult education transcripts, college transcripts, or other documentation. Please carefully read the prerequisites for the preferred program of study. Prospective applicants who do not meet these requirements are strongly encouraged to contact the Office of Admissions to discuss alternatives and may start in General Studies.
5. For Nursing Program applicants only: results of the ATI TEAS Exam must be submitted to the Office of Admissions by the February 28th application deadline.

## Course Registration/ Enrollment

All accepted students will have to submit one or more of the following:

Official Scholastic Aptitude Test (SAT I) scores meeting College requirements. Applicants are strongly encouraged to take SATs, especially if their educational goals may include transferring to a four-year institution after Central Maine Community College. American College Testing (ACT) scores will also be accepted.

or

Prior success (grade C or better) in a college level English and/or math course at a 100 level or above, taken at an accredited institution.

or

If neither SAT/ACT scores (within 5 years) or transfer credits are available Central Maine Community College Accuplacer® placement assessment in reading, writing, math (quantitative reasoning) or English as a Second Language (ESL) will be required. Please call the Admissions Office to schedule an assessment session.

SAT/ACT results, high school transcripts, placement assessment, and college level course work are used for academic counseling and course placement. Multiple measures will be taken into consideration by the Admissions Department in determining course placement. Applicants may be advised to enroll in preparatory courses or receive assistance at an adult education center.

# Admissions

## Admissions Prerequisites

All Central Maine Community College catalog programs require a high school diploma or GED. The following are additional high school prerequisites for admission to these specific programs:

- Accounting - *Algebra I*
- Career Studies - *Significant career training and experience*
- Computer Technology - *Algebra I*
- Education (Adv. Cert.) - Admission Criteria: Students who have earned an associate degree or higher in the field of education, early childhood education, human services, or another field as approved by the program chairperson may be admitted to the program.
- Electromechanical Technology - *Algebra I, (Algebra II preferred)*
- Ford ASSET - *Must meet ENG 101 or ENG 105 and MAT 100 prerequisites in order to take FOA courses. Prior to enrolling in FOA 151, students must first obtain a dealer sponsor. Before agreeing to sponsor a student, a dealer may request a criminal background check on that student. Furthermore, dealerships often require that students hold a current and valid driver's license free from "current major" violations, as that term is defined in standard auto insurance policies. Dealerships also retain the right, in their sole discretion, to accept or deny students based on their findings. Please note that the inability to secure a dealership could jeopardize an individual's ability to meet all the requirements for this degree.*
- Liberal Studies - *Must meet ENG 101 or ENG 105 and MAT 101 prerequisites*
- Medical Assistant - *Biology with laboratory, must meet ENG 101 or ENG 105 and MAT 100 prerequisites*
- Nursing - *Algebra I, Chemistry with laboratory, Biology with laboratory, completed application process and results of the ATI TEAS Exam by **February 28th** each year for competitive review process.*

## Campus Tours

All applicants are strongly encouraged to contact the Office of Admissions for a campus tour or for an individual meeting with an admissions representative. The primary purpose of the visit is to give the applicant a firsthand look at the college and to have the opportunity to seek additional information about any aspect of the College.

## New England Student Regional Program - Non-Resident Applicants

Central Maine Community College is a participating college in the New England Board of Higher Education's Regional Student Program (RSP). As such, non-resident students are eligible for special tuition rates of 150% of the in-state tuition rate when the RSP participant pursues a degree program

not offered by their home state public institutions. To be considered, applicants must clearly indicate on the Central Maine Community College application form that they wish to participate in the New England Regional Student Program.

## Rules Governing Residence

The College's Dean of Finance and General Services shall determine at the time a student is admitted whether he/she is a resident or non-resident for tuition purposes, based on information furnished in the student's application and on other relevant considerations. Students, once having registered as a non-resident, can claim resident status only after they have resided in the state for a least one-year prior to registration for the term during which they claim resident status. For College purposes, students do not acquire a bona fide domicile in Maine until they have lived here for at least a year, primarily as a permanent resident and not merely as a student. Resident status implies a probability that a student will remain in Maine after completing college. Members of the Armed Forces and their dependents are normally granted resident tuition rates while on active duty within the state. The domicile of unmarried minors generally follows that of their parents or legally appointed guardian. Students who are married or who have attained their eighteenth birthday are considered adults, and will be classified as Maine residents if they have lived for the past 12 consecutive months in the state. If a non-resident student has a spouse who is a resident of Maine, the student will also be classified as a resident. Students who wish to change their status should complete a "Request for Change of Resident Status" form and submit it to the Business Office. A student may appeal the Dean of Finance and General Services' decision first to the College President, then to the President of the Maine Community College System, whose decision in all cases will be final. If the Dean of Finance and General Services receives information indicating that a student's status should be changed from resident to that of non-resident, the student shall be informed in writing of the proposed change in status and shall be given the opportunity to argue against it. The student may appeal the Dean of Finance and General Services' decision as previously outlined. No application for change of status will be considered after September 1 for the fall semester or after January 15 for the spring semester. All changes approved during a semester will be effective at the beginning of the next semester; none will be retroactive.

## Transfer Students

In addition to the admission procedures for students with no previous college work, transfer students must submit official college transcripts from all colleges attended for both placement and transfer credit purposes before they will be admitted. College transcripts are required regardless of expected coursework transferability.

## International Students

Central Maine Community College welcomes international students seeking F1 Student Visa status from around the world. As part of the admission process, international students are encouraged to submit TOEFL (iBT, CBT, or PBT) scores to the College in order to determine admission to an academic program. Students need a TOEFL score of 530 (paper version) or 197 (computer version) or 71 (internet based) to be accepted to the



# Admissions

College. Additional testing may be necessary. Students without a TOEFL score may arrange to take Central Maine Community College's ESL Accuplacer® Placement Assessment from afar. In countries where English is a primary language, students may provide evidence of substantial program coursework in English.

International students must provide:

- Application for Admission and a non-refundable \$20 application fee.
- Foreign student financial form indicating sufficient funds to meet educational and living expenses for a minimum of program length.
- Official translated transcripts. (WES.org)
- TOEFL score or Central Maine Community College Accuplacer® Placement Assessment scores.

## Admission Categories

Central Maine Community College uses the following categories during the admissions process:

- **Incomplete** - Applicant has not yet met all required steps in the admissions process to gain acceptance.
- **Acceptance** - Applicant has met the requirements within the admissions process and has been approved for a program of study.
- **Deferred\*** - Applicant has met the requirements within the admissions process and has requested a deferred acceptance to a future semester.

*\*(Due to program capacity limits the College reserves the right to defer qualified applicants to another semester)*

## Upon Acceptance to the College

Upon acceptance to the College, students will be asked to complete and submit the following:

- \$75.00 tuition deposit that will be credited to the first semester bill. The deposit is refundable up to 120 days prior to the start of the semester of acceptance. You may defer for one semester.
- A Central Maine Community College Health and Emergency contact form documenting emergency information and an Immunization Record form which must include proof of two doses of measles, mumps, and rubella immunizations for any students born after 1956, plus a tetanus immunization within 10 years for all students. Students accepted into Life Sciences and Allied Health programs will be required to provide additional health data. Maine State law requires Central Maine Community College to collect this immunization information *(a hold may be placed on a student's account if health forms are not submitted by the semester following admission).*

- If applicable, students with a documented disability must register with the Disabilities Coordinator on campus in order to discuss needed accommodations.
- A Residence Hall application, for those students who wish to live on campus, along with a \$100.00 residence hall and meal plan deposit that will be credited toward the first semester bill. The deposit may be submitted online at CMConnect. You may connect to the deposit form through <https://www.cmcc.edu/admissions-aid/admissions/once-youre-accepted/>

## After Acceptance to the College

All college students will be signed up for a Orientation Day (or online orientation if enrolled in an online program) to learn important policies, select courses, and get their college photo ID. Orientation Day information is mailed to new students after they submit the \$75.00 tuition deposit. Students are expected to be at the College for their assigned Orientation Day.

Financial Aid award packages will be processed and communicated to students by the Office of Financial Aid. Processing can take two weeks from the time the student has been accepted. For students beginning in the fall semester, awards will be processed beginning in the early spring. For students beginning in the spring semester, awards will be processed beginning in the fall.

For high school seniors, an official final transcript must be submitted to the Office of Admissions upon high school graduation. The Registrar's Office will process transcripts from other colleges/universities for transfer credit to Central Maine Community College upon a student's acceptance and communicate results directly to students.

## Tech Prep Courses and Program Prerequisites

Applied Math I and II courses, designed by the Center for Occupational Research and Development (C.O.R.D.) may substitute for the Algebra I prerequisite. The C.O.R.D. Principles of Technology (units 1 to 14) may substitute for the General Physics prerequisites.

## Tech Prep and Advanced Standing

Central Maine Community College has formal, written agreements with a growing list of Maine high schools to award credit for course work, which has been reviewed and approved by both high school and College faculty representatives.

Students who qualify for this opportunity must be admitted to a Central Maine Community College catalog program and registered for courses before the Tech Prep transfer credit is posted on their transcripts. As this catalog goes to press, Central Maine Community College has advanced credit agreements with the following secondary schools and adult education centers.

Each agreement has specific conditions in terms of required competencies, credit hours and effective dates. Interested students should contact the

# Admissions

Central Maine Community College Office of Admissions and/or their high school guidance counselors for complete details.

BATH REGIONAL VOCATIONAL CENTER  
Automotive Technology, Culinary Arts

BIDDEFORD REG. CENTER OF TECH.  
Automotive Technology, Precision Machining, Criminal Justice

BONNY EAGLE HIGH SCHOOL  
Automotive Technology

CAPITAL AREA TECH. CENTER, AUGUSTA  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining Technology

CARIBOU REG. TECHNOLOGY CENTER  
Automotive Technology

KENNETH FOSTER APPLIED TECHNOLOGY CENTER, FARMINGTON  
Automotive Technology, Business Administration and Management, Graphic Communications

HANCOCK COUNTY TECHNICAL CENTER, ELLSWORTH  
Automotive Technology, Culinary Arts

LAKE REGION VOC. CENTER, BRIDGTON  
Accounting, Automotive Technology, Culinary Arts

LEWISTON REGIONAL TECH. CENTER  
Automotive Technology, Business Administration and Management, Computer Technology, Culinary Arts, Early Childhood Education, Precision Machining Technology, Criminal Justice

MAINE VOCATIONAL REGION #10, BRUNSWICK  
Automotive Technology, Culinary Arts, Early Childhood Education

MID-MAINE TECH CENTER, WATERTOWN  
Automotive Technology

MID COAST SCHOOL OF TECHNOLOGY, MVR #8, ROCKLAND  
Automotive Technology, Culinary Arts, Precision Machining

NORTHERN PENOBSCOT REGION III  
Automotive Culinary Arts

OXFORD HILLS TECHNICAL SCHOOL  
Automotive Technology, Business Administration and Management, Computer Technology, Culinary Arts, Graphic Communications, Criminal Justice

PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL, PORTLAND  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining

SANFORD REGIONAL VOC. CENTER  
Automotive Technology, Precision Machining Technology, Computer Technology, Graphic Arts, Culinary Arts

SCHOOL OF APPLIED TECHNOLOGY, REGION 9, RUMFORD  
Automotive Technology, Computer Technology, Precision Machining Technology

SOMERSET CAREER & TECHNICAL CENTER  
Automotive Technology, Computer Technology, Culinary Arts

ST. JOHN VALLEY TECHNOLOGY CENTER  
Automotive Technology, Computer Technology

ST. CROIX REGIONAL TECHNICAL CENTER  
Automotive Technology

TRI-COUNTY TECH. CENTER, DEXTER  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining, Criminal Justice

UNITED TECH. CENTER, MVR #4, BANGOR  
Automotive Technology, Culinary Arts

WALDO COUNTY TECHNICAL CENTER  
Automotive Technology, Culinary Arts

WESTBROOK REGIONAL VOC. CENTER  
Automotive Technology, Early Childhood Education, Building Trades

## Out-of-State

### MASSACHUSETTS

ASSABET VALLEY REGIONAL VOCATIONAL SCHOOL, MARLBORO, MA  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining, Medical Assistant

ATTLEBORO HIGH SCHOOL, ATTLEBORO, MA  
Automotive Technology, Computer Technology, Culinary Arts, Graphic Communications

BAY PATH REGIONAL VOCATIONAL HIGH SCHOOL, CHARLTON, MA  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining Technology

BLACKSTONE VALLEY TECHNICAL HIGH SCHOOL, UPTON, MA  
Automotive Technology, Computer Technology, Culinary Arts, Graphic Communications, Precision Machining Technology

BLUE HILLS TECHNICAL HIGH SCHOOL, CANTON, MA  
Automotive Technology, Culinary Arts, Graphic Communications

BRISTOL PLYMOUTH TECHNICAL HIGH SCHOOL, TAUTON, MA  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining Technology

CAPE COD TECHNICAL HIGH SCHOOL, HARWICH, MA  
Automotive Technology, Culinary Arts, Graphic Communications

GREATER LAWRENCE TECHNICAL CENTER, LAWRENCE, MA  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining Technology

LYNN VOCATIONAL TECHNICAL INSTITUTE, LYNN, MA  
Automotive Technology, Culinary Arts, Graphic Communications

MINUTEMAN REGIONAL HIGH SCHOOL, LEXINGTON, MA  
Automotive Technology, Culinary Arts, Graphic Communications

NORTH SHORE TECHNICAL CENTER, MIDDLETON, MA  
Automotive Technology, Computer Technology, Culinary Arts, Precision Machining Technology

# Admissions

NASHOBA VALLEY TECHNICAL CENTER, WESTFORD, MA  
Automotive Technology, Culinary Arts, Precision Machining Technology

PATHFINDER REGIONAL VOCATIONAL/TECHNICAL HIGH SCHOOL, PALMER, MA  
Automotive Technology, Culinary Arts, Precision Machining Technology

RINDGE SCHOOL OF TECHNOLOGY ARTS, CAMBRIDGE, MA  
Automotive Technology, Culinary Arts, Graphic Communications

SHAWSHEEN VALLEY TECHNICAL CENTER, BILLERICA, MA  
Automotive Technology, Culinary Arts, Precision Machining Technology, Graphic Communications

SOUTHEASTERN REGIONAL VOC. TECH. HIGH SCHOOL, SOUTH EASTON, MA  
Automotive Technology, Culinary Arts, Graphic Communications, Precision Machining Technology

SOUTH SHORE VOCATIONAL TECHNICAL HIGH SCHOOL, HANOVER, MA  
Automotive Technology

WALTHAM HIGH SCHOOL, WALTHAM, MA  
Automotive Technology, Graphic Communications

WEYMOUTH HIGH SCHOOL, WEYMOUTH, MA  
Automotive Technology, Computer Technology, Culinary Arts, Graphic Communications

WHITTIER REGIONAL VOCATIONAL HIGH SCHOOL, HAVERHILL, MA  
Automotive Technology, Business Administration/Management, Computer Technology, Precision Machining Technology, Graphic Communications

## NEW HAMPSHIRE

BERLIN HIGH SCHOOL, BERLIN NH  
Automotive Technology, Culinary Arts

CHESHIRE CAREER CENTER, KEENE NH  
Automotive, Culinary Arts, Precision Machinery

CONCORD REGIONAL TECHNICAL CENTER, CONCORD, NH  
Automotives

HUOT TECHNICAL CENTER, LACONIA, NH  
Automotive Technology, Culinary Arts, Precision Machinery

MASCENIC REGIONAL HIGH SCHOOL, NEW IPSWICH, NH  
Automotive Technology

MANCHESTER SCHOOL OF TECHNOLOGY, MANCHESTER, NH  
Automotive Technology, Precision Machining Technology

MOUNT WASHINGTON VALLEY CAREER TECHNICAL CENTER, NORTH CONWAY, NH  
Automotive Technology, Precision Machining Technology

NASHUA TECHNOLOGY CENTER, NASHUA, NH  
Graphic Communications, Precision Machining Technology

R.W. CRETEAU TECHNICAL CENTER, ROCHESTER, NH  
Graphic Communications, Precision Machining Technology

SEACOAST SCHOOL OF TECHNOLOGY, EXETER, NH  
Automotives, Culinary Arts

SOMERSWORTH REGIONAL VOCATIONAL CENTER, SOMERSWORTH, NH  
Automotive Technology, Graphic Communications

SUGAR RIVER VALLEY RTC, CLAREMONT, NH  
Precision Machining Technology, Culinary Arts

SUGAR RIVER VALLEY RTC, NEWPORT, NH  
Automotives

## VERMONT

CENTER FOR TECHNOLOGY, ESSEX, ESSEX JCT, VT  
Automotives

COLD HOLLOW CAREER & TECHNICAL CENTER, ENOSBURG, VT  
Automotive Technology

GREEN MOUNTAIN TECHNICAL CAREER CENTER, HYDE PARK, VT  
Automotive Technology, Culinary Arts

NORTH COUNTRY CAREER CENTER, NEWPORT, VT  
Automotives, Computer Technology, Culinary Arts

NORTHWEST TECHNICAL CENTER,  
ST. ALBANS, VT  
Automotive Technology, Culinary Arts

PATRICIA HANNAFORD CAREER CTR., MIDDLEBURY, VT  
Automotive Technology, Graphic Communications, Precision Machining Technology

## RHODE ISLAND

CRANSTON AREA CAREER & TECHNICAL CENTER, CRANSTON, RI  
Culinary Arts, Graphic Communications

CHAIRHO CAREER/TECH CTR., WOOD RIVER JUNCTION, RI  
Automotive Technology, Culinary Arts, Graphic Communications

WOONSOCKET CAREER & TECHNICAL CENTER, WOONSOCKET RI  
Automotive Technology, Graphic Communications, Computer Technology

EAST PROVIDENCE CAREER & TECHNICAL CENTER, EAST PROVIDENCE RI  
Graphic Communications

# Tuition and Fees

## Costs, 2019 - 2020

\*Charges are subject to change.

The following table summarizes estimated expenses for Central Maine Community College students during the 2019 - 2020 academic year.

**Application Fee** (non refundable) ..... \$20.00

### Tuition:

Maine Residents ..... \$94.00 per credit hour  
New England RSP Participants ..... \$141.00 per credit hour  
Non-Resident ..... \$188.00 per credit hour

### Room & Board:

All Programs (except Ford ASSET) ..... \$8,600 - \$9,340 academic year

### Other Fees:

Comprehensive Fee ..... \$9.40 per credit hour  
Student Services Fee ..... \$9.40 per credit hour  
Accident Insurance (required of all students) ..... \$16.00 per year  
Technical Course Fees ..... \$18.80 per credit hour  
Non-technical Course Fees ..... \$9.40 per credit hour  
Culinary Arts Fee ..... \$50.00 per semester  
Key and Damage Deposit ..... \$200.00  
(Required for Resident Students)  
Cable/Internet Fee ..... \$185.00 per semester  
(Required for Resident Students)  
\*Tool Fee ..... \$50.00/semester  
\*Tool Deposit ..... \$100.00  
\*(Required of Automotive, Parts & Services  
Management, and Precision Machining majors)  
Liability Insurance ..... \$15.00  
(Required for ECE, HUS, MEA  
and NUR majors)  
Human Services Fee (HUS 158) ..... \$85.00  
Nursing Testing Fee ..... \$175.00  
Tools, uniforms, etc. ~ Some programs require tools and/or uniforms.  
Background Review Fee ..... \$25.00  
(Required for ECE)  
NIMS Annual Registration Fee ..... \$40.00  
(Required for PMT)

\*In some cases, there are course fees associated with certain courses.

Tuition for the 2019 - 2020 academic year is ninety-four dollars (\$94.00) per credit hour for Maine residents. A Maine resident enrolled for two academic semesters with fifteen credit hours of coursework in each is charged two thousand eight hundred and twenty dollars (\$2,820) for tuition. However, student course loads and required credit hours vary with each program.

Room and board charges are based upon Fall and Spring academic semesters and prorated for summer, extended, and other special schedules.

Books and supplies may be purchased at the College Store in Jalbert Hall. Information about uniforms and special tool requirements is available from department heads.

Applicants with questions about financial aid should contact the Central Maine Community College Financial Aid Office at (207) 755-5328.

Inquiries concerning all other financial matters should be directed to the Business Office (207) 755-5219.

## New England Regional Student Program

Tuition for non-resident students admitted to Central Maine Community College programs through the New England Regional Student Program is established at 150% of the tuition charged to Maine residents. For 2019 - 2020, the amount is \$141.00 per credit hour. To be considered, students must clearly indicate on their application form that they wish to participate in the New England Regional Student Program.

## Comprehensive Fees

A comprehensive fee of \$9.40 per credit provides for up to 10 transcripts, graduation registration, security orientation, etc.

## Student Services Fee

A student services fee of \$9.40 per credit covers student activities and parking.

## Course Fees

Course fees are charged on a credit basis. Technical courses at \$18.80 per credit and non-technical courses at \$9.40 per credit.

## Costs of Books and Tools

The cost of textbooks and course supplies/tools varies according to the program, but averages about \$900-\$1800 per year. Some departments furnish students with tools. Students using



# Tuition and Fees

College tools pay a \$100 deposit, which is refunded at the end of the year if the tools are returned in good condition.

## Payment of Bills

Matriculating students are billed by semester for tuition, room and board charges, and fees. Bills are payable in full in August for the fall semester and in January for the spring semester. The late payment fee is \$50.00 per month. Failure to pay a bill within the prescribed period may keep a student from receiving grades, degrees, diplomas and transcripts and/or completing registration or being included on official class lists. Central Maine Community College offers an interest free payment plan for a \$35.00 fee. A fee increase of \$15.00 is added on (\$50.00 total fee) to delinquent accounts.

The College does not otherwise carry open student accounts. Students may not attend classes unless they have paid all bills or have made payment plan arrangements with the Business Office for deferred payments.

Non-matriculating students must make full payment of tuition and fees at the time of course registration. A purchase order or letter authorizing sponsorship must be submitted to the Business Office in order to defer payment.

It is the policy (No. 709) of the Maine Community College System to withhold all official credentials, including grade reports, transcripts and recommendations, until all student accounts, charges, fees and fines, including any late charges, are paid in full. Students who have delinquent accounts may be assessed late fees and not allowed to register for classes until all financial obligations are met.

## Refund Policy - Matriculated Students

The Board of Trustees of the Maine Community College System has established the following schedule as policy (No. 707) for refunding tuition and room and board payments to full and part-time matriculated students who withdraw from the College or course(s) in accordance with the schedule and provision set forth below.

Tuition and Room Deposits are refundable for a period up to 120 days prior to the start of a semester.

### Tuition Refunds\*

**100% refund** Official withdrawal from College or course within 6 business days of the semester's first day of classes. Short session course withdrawal dates are reduced. Please refer to add/withdrawal period reimbursement which is available in CMConnect and the academic calendar.

**50% refund** Official withdrawal from College or course between 7 and 10 business days of the semester's first day of classes. Short session course withdrawal dates are reduced. Please refer to add/withdrawal period reimbursement which is available in CMConnect and the academic calendar.

**0% refund** Official withdrawal from College or course after 10 business days of the semester's first day of classes.

**100% refund** Course canceled by College.

## Refunds of Room and Board Charges

1. College residence canceled by college:  
**100% of room and board charges**
2. Official withdrawal from college residence prior to the:
  - Semester's first day of classes  
**100% of room and board charges**
  - End of the semester's second week of classes  
**80% of room and board charges**
  - End of the semester's third week of classes  
**60% of room and board charges**
  - End of the semester's fourth week of classes  
**40% of room and board charges**
  - End of the semester's fifth week of classes  
**20% of room and board charges**
3. Official withdrawal from a college residence after the end of the semester's fifth week of classes  
**0% of room and board charges**
4. Unofficial withdrawal from a college residence at anytime  
**0% of room and board charges**

**Exceptions:** Notwithstanding the foregoing, the following exceptions apply:

- Refunds for room and board cancelled after a semester begins due to a *force majeure* or like event will be pro-rated; and
- Colleges may also provide exceptions on a case-by-case basis for students who present unusual and compelling medical or other significant extenuating circumstances. Each college shall adopt a form and process for reviewing student requests for such exceptions.

\*Note: For purposes of calculating refunds, the attendance period begins on the first day of the academic semester and ends on the date the student **notifies the Registrar's Office in writing of her/his withdrawal.**

Resident students who must move out of the residence halls to participate in a field experience internship to meet a curriculum requirement may be eligible for a refund of the unused portion of room and board expenses.

# Tuition and Fees

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*\*Students receiving Federal Financial Aid Funds are subject to mandated federal refund procedures upon withdrawal from the college. Please see page 13 for details.*

## **Refund Policy - Non-Matriculated Students**

The refund policy for non-matriculated students is the same as that for matriculated students. Official "drop" forms may be obtained from the Registrar's Office. Properly completed and dated "drop" forms must be in the Registrar's Office prior to the end of the "refund period" above for the applicable course(s). The Registrar's Office will notify the Business Office of all approved course withdrawals. Refunds usually require two to four weeks for processing.

## **Notes**

*Refund levels may vary for special or short-term courses depending upon the circumstances. No refunds are given for terminations resulting from academic, disciplinary or financial dismissal. Students who believe that individual circumstances warrant exceptions from the published policy may appeal to the College President or his/her designee during the semester. Central Maine Community College reserves the right to withhold grades, transcripts, certificates, diplomas or degrees from students who have not met all financial obligations to the College.*

# Financial Aid

**Central Maine Community College is committed to assisting students in paying for their education. A basic principle of financial aid programs is that the student and his/her family are expected to contribute toward their college expenses. Approximately 81% of our matriculated students receive some form of financial assistance, in the form of grants, scholarships, sponsorships, loans, and student employment opportunities. The Financial Aid Office staff is available to advise and assist students with financial aid questions or concerns. Students who need assistance in completing their financial aid application materials are encouraged to contact the office.**

## Applying for Financial Aid

Central Maine Community College requires all students who are interested in receiving financial aid (including loans) to complete the Free Application for Federal Student Aid (FAFSA). Each year the FAFSA is available as early as October 1st at [www.fafsa.gov](http://www.fafsa.gov). Our school code for completing the FAFSA is 005276.

**Deadlines:** Students are strongly encouraged to complete their FAFSA as soon as possible or by May 1st. This is to ensure that the student will be considered for all types of available assistance. Students who file their FAFSA within one week of the start of classes may be required to arrange a payment plan with the Central Maine Community College Business Office to pay for their charges while they are waiting for their financial aid eligibility to be determined.

**Notification:** Once the Financial Aid Office has received a student's FAFSA and any required documentation, and the student has been accepted for admission, the student will be notified of their financial aid eligibility. The notification will include a listing of the student aid programs that the student may be eligible to receive, and will also include any additional steps that the student must take to receive those funds.

**Disbursement of Funds:** The College schedules financial aid disbursements to occur after the add-drop period is completed during the first two weeks of each semester. Funds are always disbursed first to the student's Business Office account to pay for any outstanding charges due the College. Any excess funds are then refunded to the student by the Business Office within 14 days after the disbursement of funds. Students usually receive their funds approximately five weeks into the semester.

**Maintaining Eligibility:** Financial aid funds can only be used to pay for courses that count toward the student's current degree or certificate program. All students are required to maintain satisfactory academic progress as defined by the College. For information on Satisfactory Academic Progress, refer to the Academic Policy and Procedures section of this Catalog.

## Financial Aid Programs

Central Maine Community College offers scholarship assistance to students through the generosity of donors to the Maine Community College System and to the Central Maine Community College Education Foundation. Scholarships are awarded on the basis of financial need and

other criteria set forth by the scholarship donor, and do not have to be repaid.

Federal Pell Grants provide assistance to students demonstrating exceptionally high levels of financial need. Award amounts are based on individual student eligibility, enrollment status (full vs. part time), and number of semesters enrolled. Federal Pell Grants do not have to be repaid.

Federal Supplemental Educational Opportunity Grants (FSEOG) assist needy students who have qualified for the Federal Pell Grant. FSEOG grants do not have to be repaid.

State of Maine Grants provide financial assistance to undergraduate Maine students demonstrating high levels of financial need. Students must complete the FAFSA each year by May 1st in order to be considered for this program.

The Child Care Scholarship program was established in 2008 as a way to begin to address the demonstrated financial need of students who require assistance with child care expenses in order to attend or remain in college. Applications are available in August of each year from the Financial Aid Office.

The Native American Tuition Waiver Program provides waivers of tuition for qualified Native Americans residing in Maine attending Central Maine Community College. An applicant must meet the academic qualifications of the program, apply for federal financial aid, and establish proof of tribal eligibility. Eligible applicants include (1) persons whose names appear on the current tribal census of the Passamaquoddy or Penobscot tribes and (2) persons who have resided in Maine for at least one year and at least one of whose parents or grandparents either was included on the census of a North American tribe or held a band number of the Maliseet or Micmac tribes.

Students may apply to work on campus in part-time (no more than 20 hours per week) positions in various departments at the College. Financial need is not a criteria for hiring. The College maintains a listing of available positions on its website. Students are paid at the minimum state or federal wage, whichever is greater.

Federal Direct Subsidized Loans are available to students demonstrating financial need who are enrolled at least half time (six credits) per semester in an eligible Central Maine Community College degree or certificate program. Subsidized Loans have the interest paid by the

# Financial Aid

federal government while the student is enrolled half time and for six months following the student's separation from the College. After this six month 'grace period' is over, interest begins to accrue on the loan.

Federal Direct Unsubsidized Loans are similar to Federal Direct Subsidized Loans (see above) except that the federal government does not subsidize the interest at any point. The student is responsible for the interest from the time the loan is disbursed. Students have the option of paying the interest or having the lender capitalize the interest that accrues; this will result in the student having the accrued interest added to the student's outstanding principal balance at the start of repayment.

## **Veterans Education Benefit Programs**

Central Maine Community College as many education programs approved for the training of veterans and their dependents. All students who expect to receive veteran education benefits are encouraged to visit <http://www.benefits.va.gov/gibill> to review important information about how each benefit program works and to complete an application for benefits.

Students who expect to receive veteran education benefits are encouraged to contact the Financial Aid Office at (207) 755-5328.

## **Withdrawal from the College (Financial Aid)**

Students who receive federal student aid funding are subject to mandated federal refund procedures upon withdrawal from the College. The Office of Financial Aid is required to calculate which portion of federal grant and loan funds must be returned to the federal aid programs in situations where a student recipient withdraws before the 60 percent point in the semester. If the student withdraws after the 60 percent point in the semester, the student is considered to have earned all of their federal student assistance for the semester and funds will not be returned.

The date the student is considered to have withdrawn (as determined by the College) is the date the student returns a completed withdrawal form to the Registrar's Office or otherwise provides official notification to the College of his or her intent to withdraw. If the student does not officially notify the College of his or her intent to withdraw, the official withdrawal point will be considered to be the midpoint of the semester.

Students should be aware that the re-calculation performed by the Financial Aid Office to determine a withdrawn student's federal aid eligibility for the semester will not necessarily mirror the percentage of tuition charged to the student by the Business Office.

## **Contacting the Office of Financial Aid**

The Office of Financial Aid is located in 7 Jalbert Hall (across from Central Station Cafe). Office hours are 8:00 a.m. to 6:00 p.m. Mondays - Thursdays, and 8:00 a.m. to 4:30 p.m. Fridays. To reach the office by phone, please call (207) 755-5328. The email address is [finaid@cmcc.edu](mailto:finaid@cmcc.edu).



# Student Services

**Realizing that education consists of more than what occurs in classrooms and laboratories, Central Maine Community College administrators and faculty members make an effort to know each student as an individual and to respond to non-academic problems, needs, and interests. They regard student services as an integral part of the educational process.**

As fully participating members of the Central Maine Community College community, students are asked to attend promptly to all obligations, to use the College's facilities with care and respect, to obey local, state and federal laws, and to comply with the policies of the College.

These policies are more fully described in the Student Handbook, available online at <https://www.cmcc.edu/discover-cmcc/overview/policies-procedures-plans/>. Students are encouraged to become familiar with the Handbook and with other publications issued periodically, and to stay abreast of any changes in policy.

Students are assigned a Central Maine Community College email account upon enrolling in classes. Students are expected to check their Central Maine Community College email account regularly for important updates and information from the College.

## College Store

The College Store sells required textbooks, course tools and supplies, and novelty items. The College Store, located in Jalbert Hall, has posted hours of operation. Within two weeks after the beginning of a course, clean, unmarked books are returnable with a receipt for a full refund.

## Housing

Four residence halls provide on-campus accommodations for Central Maine Community College students. Rancourt Hall, our newest building, opened in the fall of 2007 and accommodates over 150 students in a double-room format with a private bathroom. Fortin Hall accommodates 60 students and contains dormitory rooms for double occupancy; the other two halls contain apartment units, each consisting of four single bedrooms, a common living room, and a bathroom. All rooms are furnished with single beds, a closet, a chest of drawers, a desk, and a chair. Students provide additional furnishings as desired. Students living in residence halls furnish their own sheets, blankets, towels, and pillows.

Rooms are assigned to full-time Central Maine Community College students.

A Residence Hall Council, consisting of Resident Assistants and interested resident students, plans activities throughout the year. A Director of Housing and Resident Directors live on campus and are available to assist student residents at all times.

## Food Service

The Central Maine Community College Dining Commons serves commuting students, as well as those who reside on campus. Nutritionally

balanced meals as well as short order service and snacks are available. The Dining Commons is open seven days a week.

## Student Health Services

Central Maine Community College is in close proximity to two major hospitals. Residence hall students who need healthcare services are encouraged to carry health insurance coverage.

For students with no health insurance coverage, a student health insurance plan can be purchased through the Central Maine Community College Business Office located in Jalbert Hall.

In addition to the various Life Sciences and Allied Health programs hosting health information and wellness clinics, CM partners with Healthy Androscoggin to promote a balanced health perspective.

## Tobacco-Free Policy

Central Maine Community College is a tobacco-free campus. The use of tobacco products or any object or device intended to simulate that use, including e-cigarettes, is strictly prohibited on campus. The sale, distribution or advertisement of tobacco products is prohibited. This policy applies to faculty, staff, students, contractors, vendors and visitors. The use of tobacco and all smoking products is not permitted on any college property, including but not limited to buildings, campus grounds, parking areas, campus walkways, recreational facilities, and college-owned vehicles. Tobacco use includes the possession of any lighted tobacco products, or the use of any type of smokeless tobacco, including but not limited to chew, snuff, electronic cigarettes, and all other nicotine delivery devices that are non-FDA approved as cessation products. Students smoking are in violation of College policy and will be subject to disciplinary actions.

## Insurance

Two plans of insurance are available to Central Maine Community College students. Plan I covers students for medical costs incurred as a result of accidents during the school year. All full-time students are enrolled due to the intensive shop, laboratory and field activities that are inherent to the training programs offered at Central Maine Community College. A nominal fee is charged. Plan II extends the coverage of Plan I to 12 months, and reimburses actual medical expenses according to schedules for illnesses covered. It is optional.

Students majoring in Early Childhood Education, Medical Assistant and Nursing, are required to purchase professional liability insurance through Central Maine Community College, which provides coverage during their clinical experience. Students in the Associate Degree Nursing Program

# Student Services

(who are LPNs) are required to provide their own professional liability insurance as LPNs, as well as purchase liability insurance through Central Maine Community College as RN students.

*SPECIAL NOTE: With regard to the school insurance extended coverage policy be advised that: pregnancy or childbirth, false pregnancy, termination of pregnancy, related medical conditions and recovery therefrom, shall be payable as any other sickness. Questions concerning the above should be directed to the Dean of Finance or Dean of Student Services.*

## Student Activities

Many major activities and events on campus are initiated by Central Maine Community College's Student Senate, composed each year of student representatives from each college academic program and senate-recognized clubs. Student activities are varied and are intended to appeal to the educational, recreational, athletic, and social interests of students. Financed by Student Activity Fees, the activity program includes both campus-based activities and the use of community recreational facilities. The Kirk Hall Gymnasium has posted hours for recreational activities and a new fitness center. With support from the Dean of Student Services office, commuting and residential students at Central Maine Community College may organize activities and events. Scheduled events are announced on Central Maine Community College's electronic bulletin board, which can be found in most campus buildings and by email and the Mustang Message.

In arranging student activities, the Student Senate takes full advantage of the rich recreational and entertainment possibilities in Auburn/Lewiston, Maine's second largest urban area. Funds allocated to the Student Senate budget are used to offset the cost of such outings.

Other student clubs and organizations are available from year to year for students. See Student Services for a full list of available student clubs, organizations, and activities!

## Phi Theta Kappa

Alpha Phi Xi is the Central Maine Community College Chapter of the Phi Theta Kappa, an international honor society serving two-year colleges offering associate degree programs. Central Maine Community College students who have completed 12 credit hours, and who have established a cumulative grade point average of 3.5 are eligible for membership.

## Athletics

All students have the opportunity to participate in intramural sports such as volleyball, softball, basketball, and a variety of student initiated gym games. Full time matriculated students may also try out for our intercollegiate teams. The college offers baseball, basketball, hockey, and soccer for men; softball, basketball, volleyball, and soccer for women. All teams participate in the United States Collegiate Athletic Association. We also participate in a New England and Maine league for selected teams. Students have the opportunity to petition the athletic department

to form other teams. Students must meet athletic and academic eligibility requirements to participate in intercollegiate sports. We offer open gym whenever the teams are not in season.

## Motor Vehicles

Vehicles and all other personal property on campus are the sole responsibility of their owners. Off-road vehicles are not permitted on campus. For parking regulations please see the Student Handbook online at: <https://www.cmcc.edu/discover-cmcc/overview/policies-procedures-plans/>.

## Student Counseling

Student counseling is available during the week by seeing the Dean of Students, the Housing Director, the Dean of Human Resources & Chief of Staff to the President, or the Assistant to the Deans/Evening Administrator. Personal issues and concerns can be discussed confidentially to help students deal with issues that may hinder their ability to fully attend to their studies. Students may be referred to an outside consulting agency who the college has established an agreement.

Department heads, faculty and The Office of Student Services, including Learning and Advising, personnel offer academic advising. The Office of Academic Affairs and the Learning and Advising Center are also available to assist students with academic issues.

## Career Planning and Transfer Services

Advising in areas of career exploration, career planning, transferring and choice of major is provided. Students are encouraged to utilize the "Candid Career" portal on the college website at [https://www.cmcc.edu/life\\_after\\_cmcc/career\\_resources](https://www.cmcc.edu/life_after_cmcc/career_resources). This feature provides career program information and job search support. Individual advising is also available by appointment.

Placement Services are provided for students through consultation with program chairpersons. Central Maine Community College staff works closely with business and industry to promote opportunities for positions throughout the state. Assistance in developing a resume, cover letter, and preparing for a job interview can be accessed through the Director of Placement and Transfer Services office in Student Services.

Many department heads and faculty have close working relationships with community businesses, and they assist and advise students regarding placement in occupations relating to students' training. Part-time and summer positions are also available to students who want to work while attending college. For the latest job listings visit the College website at [https://www.cmcc.edu/business-community/community\\_services/community\\_partner\\_jobs](https://www.cmcc.edu/business-community/community_services/community_partner_jobs).

Transfer services are available to students through transfer fairs, college interview days and individual advising. A robust schedule of transfer events is available during the fall and spring semesters.

# Student Services

## Gender Equity

Central Maine Community College supports its students by providing a part-time coordinator for gender equity issues and programs. The Gender Equity Coordinator is instrumental in recruiting and retention efforts especially for the college's female and male students who pursue non-traditional majors. The coordinator acts as advisor to the Gender Equity club, and provides for many exploratory opportunities for men and women in technical education and careers.

## Change of Award

When catalog programs lead to more than one award (Associate in Arts, Associate in Science, Associate in Applied Science, Certificate or Advanced Certificate), students may change their goal from one award to another through the add/withdrawal period of their final semester with the permission of their Academic Advisor and the Registrar. As program requirements vary among awards, students should consult the College catalog in effect in the semester of their admission to the program. Academic achievement, motivation, and commitment to the desired program will be used as criteria for granting a change of award. Change of Award forms are available from the Registrar's Office. Legitimate medical or personal emergencies, as determined by the Dean of Academic Affairs, may justify waiver of this policy.

## Confidentiality Policy and Release of Student Information

The College complies fully with the Family Rights and Privacy Act of 1974 (The Buckley Amendment). According to the Family Educational Rights and Privacy Act of 1974, a student has the right to inspect and review any of his/her official records, files, and dates directly related to him/her that are in the possession of the College. Only with written consent of a student is such information released to someone other than an official of Central Maine Community College. Central Maine Community College considers the following information to be directory information, which is available to the general public, unless a student notifies the Registrar's Office that he/she wishes the information to be withheld: name, address, telephone number, major, dates of attendance, date of graduation and other non-academic information. If a student wishes to withhold this information, he/she may indicate so by notifying the Registrars office in writing.

## Transferring Credit from Central Maine Community College to Other Colleges and Universities

Central Maine Community College is accredited by the New England Commission of Higher Education, Inc. Because of this accreditation, most academic credits will transfer to other colleges and universities. The receiving school has the right to determine whether or not academic credit will transfer, and how the transfer credit will apply toward specific degree programs.

To have a Central Maine Community College transcript sent to another institution, please contact the Registrar's Office for the form "Request for Official Academic Transcript." This form is also available on the college website and through the student's CMConnect portal.

For further assistance in transferring from Central Maine Community College, contact the Director of Placement and Transfer Services at (207) 755-5239.

## Students Called to Military Service

A number of students at the College are active military members. Central Maine Community College recognizes the educational rights and responsibilities of these students must be protected in the event the students are called to service as a result of international or national crises. A Withdrawal form is available from the Registrar's Office.

In the event a matriculated service member is called to active service, the following will apply:

## Financial

1. Tuition and Fees: When students return, they will be entitled to free tuition and fees equal to the number of credits they were carrying at the time of departure.
2. Room and Board: Students will be entitled to a prorated refund of room and board charges.

## Re-Admission/Registration

1. The student's file will be kept active for 12 months. Upon request, this status may be extended if military service exceeds 12 months.
2. The College will guarantee a slot in the student's original program of study provided that the student notifies the institution on a timely basis of intent to return to the College.

# Academic Policies and Procedures

**The College endeavors to provide an educational experience allowing graduates to be productive and successful individuals, in the workplace, in upper division programs of study, or in other endeavors they may pursue. It is the responsibility of the Office of Academic Affairs to provide the leadership, guidance, and support necessary to ensure the excellence and integrity of all academic programs and related policies.**

## General

### Auditing Courses

A student may audit a course to acquire knowledge but not earn credit or a grade. Audited courses do not count toward completion of a certificate or degree and an auditor may not change his/her status after the second class meeting. Auditors are expected to attend class regularly, participate in class discussion, and complete assigned readings, but are excused from examinations and homework. Auditors are admitted to a course based on available space or instructor approval. Students auditing classes pay regular tuition and related fees. There is no limit to the amount of courses a student may audit. To audit a class a student must meet the prerequisite and complete and submit an audit form by the end of the add/withdrawal period. Forms may be picked up in the Registrar's office.

### Academic Integrity

Honesty in all academic work is expected at Central Maine Community College. A student's work should be a result of independent effort and ideas. Any student who is suspected of academic dishonesty will face investigation and possible disciplinary action which may include dismissal from the College. Academic dishonesty includes, but is not limited to: cheating, using unauthorized aids, taking a test for someone else, copying another person's work on exams, quizzes, or assignments; or plagiarism, taking language, information or ideas from another person or source without attributing the appropriate reference, fabrication, or forgery. Refer to Maine Community College System Academic Affairs Policy 309 Academic Misconduct for further information. A teacher who suspects or discovers an incident of academic dishonesty may deal with the situation directly with a fair and appropriate sanction, postpone action until consulting with other College officials or refer the incident to the College Discipline Officer for review and action.

Academic integrity and student issues that arise at clinical affiliates are handled under MCCS policy 310.

### Credit Hour Definition

Central Maine Community College follows the New England Commission of Higher Education's definition of the credit hour:

Federal regulation defines a credit hour as an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutional established equivalence that reasonably approximates not less than

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
2. At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practical, studio work, and other academic work leading to the award of credit hours.

### Attendance Policy

Students are expected to attend all classes and labs. Furthermore, students are expected to arrive on time and remain in class for the allotted period. Instructors report attendance weekly.

It is critically important students communicate with faculty prior to or immediately after any absence. The student is responsible for making arrangements with each instructor to complete all missed course requirements.

#### Extracurricular and College-Sanctioned Activities

Central Maine Community College recognizes several types of activities that enhance the educational experience. Students who engage in any college-sanctioned activity must:

1. Notify instructors at the beginning of the semester of any potential absences and establish a plan to make up the work.
2. Notify instructors as early as possible to the absence.
3. Understand the attendance and make up policy for each course as established by the course syllabus.
4. Understand that academics has priority over extracurricular activities.

### L Policy

Students who are absent for three weeks of consecutive classes for a fifteen week course or two weeks of consecutive classes for an eight week course will be awarded a grade of L for leaving the class. Online courses must have a procedure to track participation and if a student does not participate in the course for three consecutive weeks the L grade should be awarded. Exceptions to awarding a grade of L can be made upon mutual agreement of the course instructor and the Academic Dean in rare circumstances. Exceptions might include family or medical emergencies or military obligations, and in all cases should be well communicated



# Academic Policies and Procedures

to the instructor at the earliest possible time. If a faculty member and the Academic Dean grant permission for a student to return to classes after receiving an L grade, and the student has the ability to pass the course, the L can be removed by completing the Change of Grade Form.

## Add/Withdrawal Policies for Catalog Courses

**Enrollment Confirmation:** Upon registration, each student's name is placed on the official class roster. A student sitting in class and not on the roster must report to the Registrar's Office and officially enroll.

The student's name remains on the list and he/she assumes financial obligation for the course unless the student officially withdraws from that course as that term is defined under "Add/Withdrawal Procedures" on page 17 of this catalog.

Students placed on a wait list must monitor their registration carefully should they be contacted via CMConnect that they are authorized to add the course. The communication will be sent to the student's Central Maine Community College email.

Students must submit all add/withdrawal forms and/or email approvals directly to the Registrar's Office. Central Maine Community College reserves the right, without notice, to extend the add/withdrawal period because of weather related cancellations or other extraordinary circumstances.

**Adding a Course:** Courses may be added only within 6 business days of the semester's first day of classes (fall and spring semesters).

**Withdrawing From a Course:** In order to receive a full or partial refund, a student must officially withdraw from a class or classes within 10 business days of the fall or spring semester's first day of classes. If a student officially withdraws from a class within 6 business days of the semester's first day of classes, the student is entitled to a refund of 100% of each withdrawn class. If the student officially withdraws within the 7th and 10th business day from the semester's first day of classes then the student is entitled to a refund of 50% of each withdrawn class. Students who either fail to officially withdraw within 10 business days of the semester's first day of classes or unofficially withdraw at any time assume all financial obligations for tuition and fees. Properly completed add/withdrawal forms and emails with approval received by the Registrar's Office shall be date stamped and considered official. Students must retain their copies as evidence of successfully dropping each class. Students will be asked to provide such evidence should a dispute arise.

**Matriculated and non-matriculated students who drop from all classes are subject to the Maine Community College System (MCCS) Board of Trustees refund policy—see page 12 for details.**

**Course Withdrawal:** Up to mid-semester, a student withdrawing from a class will receive a "W" which will not affect his/her GPA. However the credit hours will be counted as credits attempted when computing

"Pursuit in Program" (See SAP policy). After mid-semester, courses may be withdrawn but a grade of "F" will be recorded on the student's transcript and will be calculated into the GPA.

**Administrative Withdrawal:** In rare and documented cases, due to unique and extraordinary circumstances involving medical, economic, or personal hardship, the Academic Dean may authorize an Administrative Withdrawal (AW) from course(s) which will not affect the grade point average. However the credit hours will be counted as credits attempted when computing "Pursuit in Program" (See SAP policy, p.27). All AW requests must be submitted in writing with appropriate documentation.

## Add/Withdrawal Procedures

"Official Withdrawal" means the student's timely and complete execution of documents required by the college to accomplish formal removal from a course. "Unofficial Withdrawal" means any absence without the notice required for an official withdrawal.

Adding and withdrawing from a class must be done in writing and there are two options for a student to consider:

1. Add/withdrawal forms can be picked up at the Registrar's Office.
2. Email the Registrar at registrar@cmcc.edu and ask to have a class added or withdrawn. Email must include student's full name, ID number, course name, number and section. The Registrar will process and respond to the student. In some situations the instructor may need to submit an add/withdrawal form to the Registrar.

Students must supply either their copy of the add/withdrawal form or their copy of the Registrar's email response in the event of conflicting versions of an issue surrounding their add or withdrawal of a class.

## Waitlist Procedure

Once a section closes students attempting to register will get a prompt asking if they want to be placed on the waitlist or to decline that option. Students will know what position they would be wait-listed should they accept the waitlist status.

If a seat becomes available, the first student on the waitlist will receive an email invitation authorizing that student to move into the course.

Once the student receives the authorization, the student will have the opportunity to add the class by clicking on the blue "move to current" link on the registration screen.

If the student does not click on the "move to current" link within 24 hours of the invitation, the student is totally dropped from that course and the system moves down to the next student on the waitlist. A "dropped" student may re-register for that course but will be placed at the end of the waitlist.

The same process described above takes place for each wait-listed student in the exact order the students were timed stamped onto the waitlist. This function will continue maintaining full course enrollment or until the waitlist

# Academic Policies and Procedures

is depleted. As stated above, this function will scan the course enrollment status every hour.

Due to the waitlist feature, advisors and instructors ability to assign a course capacity authorization override will not be operable.

Students cannot be registered or wait-listed for classes that are scheduled at the same time of day (a time conflict will appear).

Students can be wait-listed for several classes as long as they do not present a time or same course conflict.

Prerequisites will be upheld for wait-listed students.

The waitlist authorization period of 24 hours must not be confused with any student holding an AA advising code. These are different functions and must be treating independently.

## Withdrawal from the College

To officially withdraw from the College, a student must submit a withdrawal form from the Registrar's Office during the first ten (10) days of a semester (5 days during the summer session) and no grades will be recorded on the transcript. Students who do not officially withdraw from the College will receive grades of "WF." Students receiving financial aid may be subject to Federal fund obligations or conditions and should contact the Financial Aid Office prior to withdrawal. Please refer to the College refund policy in this catalog.

## Changing Major Programs of Study

A matriculated student may change from one major program of study to another by filing a "Change of Major" form with the Registrar's Office. The Department Chairperson of the program in which the student wants to enroll needs to sign and date the form. Forms are available from the Registrar's Office or through CMConnect.

Previously earned courses at Central Maine Community College are transferable, along with their grades, to a new or change of program major. Appropriate transfer credit is contingent upon specific program requirements. The student's Academic Advisor, Department Chair, and the Registrar will work with the student to ensure appropriate transition.

Students may request that SAP components be re-set when they officially change major. A re-set of SAP will occur only once during that student's tenure (See SAP policy, p.27).

## Course Availability

Central Maine Community College reserves the right to cancel courses due to insufficient enrollment or make changes in course offerings and charges without formal notice at any time.

## Transfer Credit Policy and Procedure

Transfer credits are evaluated once students are accepted into a program of study and have submitted the tuition deposit to attend Central Maine Community College. All courses with a "C" or better are reviewed for transfer credit and will be posted within 5 business days of receipt of the official transcript. In some cases, course descriptions and/or syllabi may be required prior to transfer credit acceptance. Students are required to supply these materials if needed. Transfer credit is not figured into a student's grade point average. However, transfer credits applied to the degree program will be counted in pursuit of the degree program.

The College accepts academic credits from institutions or programs of post-secondary institutions accredited by organizations that are recognized by the Council for Higher Education Accreditation and/or the U.S. Department of Education based upon the equivalency of course content to program requirements and the equivalency of academic credit hours. *Note: Students requesting Veteran's Educational Assistance are required to have all previous post-secondary educational experience evaluated for possible transfer credit in order to be eligible for benefits.*

### How to Request Transfer Credits:

Matriculated students at Central Maine Community College are expected to secure written approval from their academic advisors and the Registrar's Office prior to taking course work at other accredited institutions. Approved credit courses taken at other institutions will count toward total degree credit hours required but will not be calculated in the student's cumulative grade point average.

## Academic Credit for Prior Learning

Central Maine Community College recognizes the value of learning acquired outside a college setting. Students are encouraged to explore all credit options that Central Maine Community College has available to them. It is possible to earn credit through national exams such as CLEP or DSST, portfolio review, or Central Maine Community College course challenge examinations. Credit may also be earned for college-level learning gained through paid or unpaid employment and internships or on a limited basis, independent study. For further details regarding prior learning options, students should contact their academic advisor or the Office of Academic Affairs. For more information, visit the Credit for Prior Learning page on the College's website.

Students who seek credit for prior learning must be formally admitted (matriculated) into a Central Maine Community College degree program. Students must have a requirement(s) in their academic programs, to which prior learning credits could apply. In addition, students who are admitted to the College must earn a minimum of 25% of their associate degree program course requirements from Central Maine Community College. College credit earned through any of these options count toward degree/certificate requirements but are not calculated into the grade point average (GPA). All college courses taken more than ten (10) years ago are subject to review and acceptance. Note: Academic credit awarded through prior

# Academic Policies and Procedures

learning does not satisfy credit load requirements for veteran benefits funding or other similar third party financial assistance programs.

## Types of Prior Learning

The following are types of prior learning Central Maine Community College will assess for the award of credit.

### Transfer Credit

Central Maine Community College will accept academic credit transcribed by other institutions (accredited by the Council for Higher Education Accreditation and/of the U.S. Department of Education) when the course, credit, and transcript key are clear and consistent. Credit should be relevant in the Central Maine Community College degree program and is subject to review by Department Chairperson.

Students should request official college transcript(s) be sent directly to the Central Maine Community College Registrar's Office for review and transcription. The transcript provided to Central Maine Community College must be in English. Students will be referred to World Education Services (WES) for the translation of transcripts in other languages. If another institution's course description/learning outcomes are not readily available from that website/catalog, the Registrar may contact a student to obtain these.

### National Exams

Central Maine Community College will award academic credit for learning demonstrated by successfully passing a national examination such as:

#### CLEP (College Level Examination Program)

Students may earn college credits toward a degree by passing CLEP exams in a wide variety of subjects such as English, math, biology, chemistry, psychology, sociology, economics, accounting, marketing, business law, and others. CLEP standardized examinations are conducted at the Central Maine Community College Center for Testing & Assessment, located in Jalbert Hall. Students must make their own arrangements to take the CLEP exam(s) and have official scores sent directly to the Central Maine Community College Registrar's Office. To schedule a CLEP examination, please contact the Central Maine Community College Center for Testing & Assessment at (207) 755-5450.

For minimum CLEP score acceptance relative to the subject examination, contact the Registrar's Office. Acceptable CLEP examination scores will be recorded as a "T" on the student's transcript and will not be calculated in the GPA. More information can be found online at [www.collegeboard.com](http://www.collegeboard.com).

#### DSST (DANTES Subject Standardized Test)

DSST are credit-by-examination tests originated by the United States Department of Defense, but open to all learners. DSST is a of series examinations in college subject areas that are comparable to the final or

end-of-course examinations in undergraduate courses, including subjects such as business, history, criminal justice, U.S. history, psychology, and technology. DSST examinations are conducted at the Central Maine Community College Center for Testing & Assessment, located in Jalbert Hall. Students must make their own arrangements to take DSST exams and have official scores sent directly to the Central Maine Community College Registrar's Office. To schedule a DSST examination, please contact the Central Maine Community College Center for Testing & Assessment at (207) 755-5450.

Acceptable DSST examination scores will be recorded as a "T" on the student's transcript and will not be calculated in the GPA. More information about DSST exams can be found at: [www.getcollegecredit.com](http://www.getcollegecredit.com).

### AP (Advanced Placement)

A student will have taken a College Board AP exam(s) during her/his high school career. The AP score(s) should be requested by the student and sent directly to the Central Maine Community College Registrar's Office for review and transcription. For more information, visit [www.collegeboard.com](http://www.collegeboard.com).

### International Baccalaureate (IB – Higher Level Exams)

A student will have taken IB exams at high schools offering an international baccalaureate program. IB score(s) should be requested by the student and sent directly to the Central Maine Community College Registrar's Office for review and transcription. Central Maine Community College recognizes IB achievement by awarding credit to students who score 5 or above on Higher level IB exams. For more information, visit [www.ibo.org](http://www.ibo.org).

### Foreign Language Achievement Testing

Foreign language achievement testing can assist students in receiving credit for a broad array of languages. CLEP, Brigham Young University (BYU) and New York University (NYU) offer testing options for this purpose. CLEP offers foreign language exams in three languages: French, German, and Spanish. Credit awards are based on minimum scores. Both BYU and NYU offer exams in over 60 languages. Credits for BYU language tests are awarded based on scores from 8 through 12. No credit is awarded for scores below 8. Credit for NYU language tests will be given as follows: 3 credits for the 12 point exam and 6 credits for a 14 point exam.

To schedule a foreign language examination, please contact the Central Maine Community College Center for Testing & Assessment at (207) 755-5450. More information on registration for foreign language achievement tests can be found at the following links: <https://clep.collegeboard.org/register/exam>, <https://flats.byu.edu/> or [www.scps.nyu.edu/academics/departments/foreign-languages/testing/process.html](http://www.scps.nyu.edu/academics/departments/foreign-languages/testing/process.html).

# Academic Policies and Procedures

## Credential Review

Students may receive academic credit for some non-credit courses, certifications, licenses, examinations, registered apprenticeships, etc. gained outside of traditional college programs. A crosswalk for the most common and pre-approved credential recommendations by Central Maine Community College degree program are available at the college's Credit for Prior Learning website. Many other credit recommendations are listed in the American Council on Education (ACE) National Guide to College Credit for Workforce Training, and may also be used by department chairpersons to produce proficiency credit equivalencies with Central Maine Community College courses.

Other trainings not already reviewed by Central Maine Community College or ACE may also be reviewed by the appropriate department chairperson for academic credit. Credential assessment will require valid proof of learning such as the license, certification copy, course materials, certificates, or other information. Credit award is subject to applicability of the learning to the student's program of study. Credential review requires a meeting with the appropriate department chairperson and/or the associate dean of academic affairs for consideration.

## Military Review

Students may receive credit demonstrated by formal service school training programs and off-duty educational activities in the Armed Forces, including: basic training, military service school recommendations by the American Council on Education (ACE), and U.S. Armed Forces Institute correspondence courses. Students request military transcripts either through the Joint Services Transcript (JST) or the Community College of the Air Force for military experience they wish to have evaluated for credit. Students who meet with Central Maine Community College's Veterans' Services officer directly will be able to request a JST transcript immediately.

## Challenge Examination

Central Maine Community College offers matriculated students the opportunity to take a challenge examination in lieu of a catalog course for which the student believes he/she is knowledgeable. Challenge examinations are limited to one attempt per course and may not be taken for courses in which a CLEP or DSST examination exists. Exams do not exist for all Central Maine Community College courses, but may be requested where the exam is written and available.

Requests for the challenge examination must be approved by the department chair, academic dean and relevant faculty member. A grade of C or higher must be attained on the examination but will be recorded as a "P" on the student's transcript and not factored into the grade point average. Students may apply for credit by examination through the Registrar's Office but are encouraged to consult their academic advisor first. The non-refundable fee for the exam is \$100, plus, if applicable, the cost of laboratory supplies and materials. Payment to the Business Office is required prior to taking the exam.

Challenge exams should be accomplished in time to impact a student's

upcoming course schedule. Though the fee is non-refundable, if the student is enrolled in the challenged course, a refund of pre-paid tuition will be authorized if a course is successfully challenged within the add/withdrawal period.

## Portfolio Review

A prior learning portfolio offers matriculated students in some programs the opportunity to demonstrate learning gained through relevant work and life experiences which may convert to academic credit toward a degree program. The portfolio is an extensive written presentation of evidence assembled and submitted to a department chair or faculty member under the direction of the Office of Academic Affairs.

Only when the student has significant prior learning and none of the prior learning assessment methods listed above can help demonstrate the learning for Central Maine Community College credit, should the student develop a prior learning assessment portfolio. The award of PLA Portfolio credit is dependent on relevancy to courses in the Central Maine Community College degree program; including general education, major and elective courses. The portfolio includes several major sections including a thorough resume, a narrative summary of relevant work and learning experiences, demonstrated skills and training in specialized areas, and applied knowledge and competencies in a specific course for which Central Maine Community College credit is available.

Portfolio review requires that a student show proof of college-level writing credit/equivalent, prior to preparing any portfolio for credit. There is a \$125 non-refundable fee for the review of a portfolio. Payment to the Business Office is required at the submission of the portfolio.

A portfolio is reviewed on a pass/fail basis. This recommendation is based on the student showing narrative and evidence of learning outcomes that would constitute a grade level of C (2.0) or better for the course. The submission of a portfolio for review does not guarantee credit award.

## Matriculation Status

A matriculated student has met the prescribed admission requirements, has been officially accepted into a catalog program, and has registered for a credit bearing course in the curriculum.

Matriculation status is maintained from the first enrolled semester provided SAP is met. One three credit hour course with a passing grade must be taken annually or an application for readmission must be submitted to the Admissions Office to regain matriculated status.

## Non-Matriculated

Non-matriculated students (not formally admitted to a catalog program) may register during open registration periods for scheduled catalog courses providing the student meets the prerequisites for the course. Such registration should be completed through the Registrar's Office and must be paid the same day.



# Academic Policies and Procedures

## Evaluations

Central Maine Community College is committed to the improvement of student learning. Students participate in instructor evaluations at the end of each semester. Students may also participate in standardized pre and post testing, providing valuable information on the learning process.

## Distance Education

Central Maine Community College offers a large variety of online courses and degree programs. Our distance education courses are taught by the same qualified instructors, follow the same curriculum, and maintain the same quality and standards as traditional classroom courses. Online courses provide flexibility in scheduling and are especially helpful to self-directed learners. It is recommended that students be comfortable with computers, particularly the Internet, before taking an online course.

## Course Numbering

Central Maine Community College has a group of specialized courses that may be activated by a department as the need arises:

**Special Topics – 296:** This is a class that can change the topic within the department with each section. The topic will be a class that is not part of the normal inventory of classes. For example, HIS-296 may have a special topic “The History of Fort Knox in Bucksport Maine, 1863-1866”.

**Independent Study - No unique course number:** This is a class that is designed to be delivered independently of a formal classroom setting. There are two scenarios for this class; independent study for a class in our inventory or a special topics class taught in an independent study format. In both cases the course number of the class used in the classroom scenario is used with the letters (IS) added to the course title. Any formal meetings will be in the instructor’s office.

**Prior Learning – 199:** Apprenticeship/Prior Learning - Variable credit is awarded for up to 18 credits after committee review. See pages 20-21.

**Practicum – 299:** A practicum is a college course, often in a specialized field of study, which is designed to give students a supervised practical application of a previously studied theory. If more than one practicum is allowed or required, then this should be repeatable with adjustments to the course title.

**Field Experience/Internship - 197 and 297** (depending on first year vs. second year): Field Experience is application of knowledge and analysis in professional settings. If more than one field experience is allowed or required, then this should be repeatable with adjustments to the course title.

**Capstone – 298:** Capstone experience is an activity for students that is designed to demonstrate comprehensive learning in the major through some type of product or performance.

## Transcript of the Permanent Academic Record

The permanent academic record is maintained by the Office of the Registrar for all students of the College. While the grade report is the official notification to the student and the faculty advisor of the student’s academic achievements for a given semester, the only true and valid documentation of academic work and student status is an official transcript of the academic record, stamped with the Registrar’s signature and the seal of the College. The transcript is available only with the permission and signature of the student, and will be released to that student or a designee only if there are no outstanding charges/holds against his or her account. Transcript applications are available from the Registrar’s Office, College website and CMConnect. The first 10 requests are free. Additional charges are in place for expedited processing. See also page 28, Academic Records Changes.

## Academic Conflict Resolution/Grievance Procedures

Whenever an academic question or difference arises between an instructor and a student, the following procedure will be followed:

1. The student will discuss the issues with the instructor; if unresolved,
2. The matter may be discussed with the department chair or program administrator which the class is offered; if still unresolved,
3. The matter may be appealed to the Dean of Academic Affairs for a final decision.

## Final Grade Appeals

In accordance with the Maine Community College System Policy 309, Student Grade Appeals and Academic Misconduct, the following procedure shall take place for final grade appeals. The student will first converse with the instructor to determine the contributing factors that determined the final grade. If the student is not satisfied with the result of the a conversation, the student may then file a formal appeal to the department chair of the course offered unless the instructor is the department chair then the student can forward directly to the academic dean.

A formal appeal must be submitted in writing within 30 days of the posted grade. Such an appeal must state mitigating circumstances that are supported by documentation and also state the resolution that is sought.

Mitigating circumstances are objective in nature. Under most circumstances, disagreements over the quality of work or instructor competence are considered subjective and are not subject to appeal. A student must establish that the final grade was:

# Academic Policies and Procedures

- Based on arbitrary or personal reasons unrelated to the instructor's judgment of the academic performance of the student and/or
- Assigned not in accordance with the course syllabus or related adjustments of the syllabus that may have occurred during the semester and/or
- The result of an error in calculating or recording of the grade

Documentation might include test results that were not used in grade computation. Such evidence must be attached to the appeal. Falsification or fabrication of information provided by the student may be subject to disciplinary action under Academic Misconduct of Maine Community College System Policy 309.

Resolution may be a request to recalculate the final grade based on the evidence provided.

The appeal will first be submitted to the department chair offering the course. If still unresolved, the appeal will then be submitted to the Academic Dean, whose decision is final.

Note: This policy applies only to final grades.

## Disability Services

Central Maine Community College is committed to providing the means to enable equal access to education for students with disabilities. Pursuant to federal law (Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and Americans with Disabilities Act Amendment Act of 2008) individuals with disabilities (those defined as having "a physical or mental impairment that substantially limits one or more of the major life activities of such individual, a record of such impairment, or being regarded as having such an impairment") who are otherwise qualified, may be eligible to receive academic support and/or accommodation(s). Eligibility is based on documentation that establishes that the individual has a disability and the current functional impact of the disability as it relates to the school environment. Reasonable academic accommodations are provided on an individual, case-by-case basis to an admitted or enrolled student. Essential components of any course of study may not be eliminated or circumvented. These accommodations are intended to promote equal access, not special privilege. It is the student's responsibility to make the Disabilities Coordinator aware of his/her disability and possible need for accommodation. The Disabilities Coordinator may be reached by calling (207) 755-5277, or by appointment. Please refer to more detailed information below, including the grievance procedure that must be used by students for complaints regarding claims of disability and requests for accommodation.

## Disability Service Procedure and Documentation

Under federal law (Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, and Americans with Disabilities Act Amendment Act of 2008) qualified students with disabilities may be

eligible to receive academic supports and/or accommodations. Eligibility is based on disability documentation and assessment of individual need. Central Maine Community College is committed to providing the means to enable equal access to education for admitted or enrolled students with disabilities.

**It is the student's responsibility to make Central Maine Community College's Disabilities Coordinator aware of his/her disability and need for accommodation in a timely manner including prior to or during the admissions process or prior to course registration.** Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing required documentation to verify disability to the Disabilities Coordinator. The up-to-date documentation is required to justify the possible need for reasonable accommodation(s) that provides equal access to programs and services at the college.

Documentation must be typed on official letterhead of the diagnosing practitioner. The practitioner must be a licensed and /or certified professional who is qualified to diagnose the stated disability and not related to the student. It must be current for the disability (for learning disability, within five years and adult scales; for all other disability areas, within one year). Documentation must include the following components:

- A diagnosis described from Diagnostic and Statistical Manual of Mental Disorders V or latest edition (if appropriate).
- Date first diagnosed and beginning treatments or services. A general history and clinical interview should be included.
- A description of the comprehensive diagnostic tests/methods used, including specific test score and examiner's narrative interpretation. This description should rule out other disability areas. The report should contain raw scores, converted standard scores, index scores as applicable, including standard test scores and age equivalents. 4. A clear, direct statement of diagnosis. The diagnostician should avoid the use of such terms as "appears" or "seems" or "is indicative of." If the data does not confirm a disability, the evaluator should state that conclusion in the report.
- A description of the current functional impact of the disability. This must establish what major life activity is substantially limited. Explanation of functional limitations from the impairment that may adversely affect the individual in an academic college program must be included.
- A statement of the method of treatment including current use of any medications, ability/inability to control symptoms, effects of medication that may adversely interfere with clear cognitive functioning.
- A description of the expected progression of symptoms, especially during college years.

# Academic Policies and Procedures

TABLE 1

## Explanation of Grades, Symbols and Codes

The quality of performance in any academic course is reported by a letter grade. The letters are translated to grade points for the purpose of calculating semester and cumulative averages. These grades denote the character of work and are assigned grade points as follows:

Letter Grade	Description	Grade Points
<b>A</b>	Excellent Achievement	4.00
<b>A-</b>	3.67	
<b>B+</b>	3.33	
<b>B</b>	Good	3.00
<b>B-</b>	2.67	
<b>C+</b>	2.33	
<b>C</b>	Satisfactory	2.00
<b>C-</b>	1.67	
<b>D+</b>	1.33	
<b>D</b>	Poor/Low level achievement	1.00
<b>F</b>	Failure to meet the minimum level of course objectives	0.00

**I** Incomplete - No credit. The "I" grade is used for verifiable and unavoidable reasons. Since the "incomplete" extends enrollment in the course, requirements for satisfactory completion must be established through student/faculty agreement and approved by the department chair, dean of academic affairs or designee. Courses for which the grade of "I" (incomplete) has been posted must be completed by the end of the subsequent semester (excluding summer) or the "I" will be converted to an "F."

**T** No grade points; grades for courses that have been accepted by Central Maine Community College as transfer (T) credit from other institutions are not computed in the grade point average.

**L** Stopped attending a course without officially "withdrawing." The grade of "L" will be computed as an "F."

**NS** No show - did not attend. No grade points; "NS" grade will be removed from the transcript.

**AU** Audit - No credit (permission of the instructor is required to audit a class). Student attended the course on a non-credit basis.

**R** Repeated Courses - When a student repeats a course and earns a grade of A, B, C, D, or F, the initial grade remains on the transcript but only the highest grade is used in computing the grade point average. .

**AW** Administrative Withdrawals. Authorized by the dean of academic affairs, usually for compelling personal and/or confidential circumstances.

**W** Withdrawal. No grade points. A "W" is assigned to students who withdraw from a course or the College after the "Add/Withdrawal" period through the date of the mid-semester or term.

**WF** Withdrawal/Failing. A "WF" grade is assigned to students who withdraw from a course or the College after the last day to withdraw from a course without academic penalty listed on the Academic Calendar. It is computed as an "F".

\* No grade reported. The student should contact the instructor to resolve the matter.

- A history of previous accommodations and their impact.
- Recommendations based on functional and substantial limitations for college academic and physical accommodation.

Once a student's disability documentation is received, the Disabilities Coordinator will review the material to determine its completeness and validity. If further information is deemed necessary, the Disabilities Coordinator will inform the individual within 30 academic class days. When the received documentation is complete, the Disabilities Coordinator will contact the student to set up a meeting. In an interactive process the student and Disabilities Coordinator will agree on what, if any, reasonable accommodations will be supported. A letter of accommodation will be generated by the coordinator and supplied to the student. The student then shares the letter with instructors of her/his choosing. The student must make an appointment with the Disabilities Coordinator at the beginning of each semester to update the accommodation letter. If a student does not have documentation but feels that he/she has a disability, a referral may be made by the Disabilities Coordinator. Central Maine Community College does not provide this testing; it is at the student's expense.

Documentation minimums (for LD, NLD, AD/HD, Brain Injury, Autism, Psychiatric Disorders)

- Cognitive Component (WAIS IV, preferred, other comparable accepted)
- Achievement Component (WAIT III, preferred, other comparable accepted)
- Information Processing Component (WMS IV, Bender, executive functioning, Rey Osterrieth Complex Figure Test, or other appropriate tests)

Other tests should be included that are appropriate to the particular area of disability pointed to from the above required components. For example, if from the information gathered it indicates that the individual has a writing disability, then it would be appropriate to complete the TOWL3 or latest edition.

For AD/HD, it is appropriate to include rating scales by instructors, parents and the student, as well as the Connors Continuous Performance Test or other comparable test.

# Academic Policies and Procedures

TABLE 2

## Grade Point Average

Academic standing is reported at the end of each semester by using the grade point average, which is determined by multiplying the grade point value (0.00 to 4.00) for each letter grade by the number of credits earned in the course, totaling the grade points, and dividing the sum by the total number of credits attempted for the semester. For example:

Course	Credit Hrs Attempted	Letter Grade	Grade Pt. Value	Credit Awarded	Grade
PMT 228 Metallurgy	1	F	0.00	0	0.00
PMT 214 Advanced CNC	2	A	4.00	2	8.00
PMT 103 Print Reading & Sketching	3	B-	2.67	3	8.01
LER 100 First Year Seminar	1	L	0.00	0	0.00
MAT 105 Geometry & Trigonometry	3	A	4.00	3	12.00
ENG 201 Technical Writing	3	C	2.00	3	6.00
ENG 101 College Writing	NA	T	0.00	3	0.00
	13			14	34.01

Computation of Grade Point Average  $34.01 \div 13 = 2.616$

TABLE 3

Total Hours Attempted	Cumulative GPA at or Above
1 - 23*	1.5
24 - 35	1.75
36 - 47	1.9
48 and above	2.0

\*A student completing the first semester of the first year must earn a GPA of .70 or higher to avoid automatic suspension.

Disabled students, like all students, are responsible for maintaining an acceptable level of conduct and academic achievement. Essential components of any course of study may not be eliminated or circumvented.

## Policy and Procedures for Substitution/Waiver of Program Course Requirements for Students with Disabilities

### Introduction

Student requests for a course substitution and/or waiver will be individually reviewed by the College's Committee on Curriculum Substitution/Waiver for Students with Disabilities. The Committee will be composed of the Academic Dean, the Disabilities Coordinator, the appropriate Department Chair or Program Coordinator, the Registrar, and ad hoc members as necessary.

As a general rule, academic requirements that the College reasonably determines are essential to the student's program of instruction or to pertinent career licensing requirements will not be substituted or waived because such substitutions or waivers can significantly diminish the integrity of the degree.

For example, the College regards written communication as an integral and essential component of every program that Central Maine Community College offers. Any modification of that requirement would substantially alter the nature of the educational preparation at Central Maine Community College. Accordingly, the College regards the curriculum of ENG 101 to contain core requirements that cannot be substituted or waived.

Again, each request will be evaluated and decided on a case-by-case basis given the nature and degree of the student's disability and the nature and essential character of the course or program at issue.

## Substitution/Waiver Procedure

A student seeking a course substitution and/or waiver must complete the following steps:

- 1. Meet with and present to the Disabilities Coordinator** documentation of the student's reasonable attempt to complete the course as outlined in "Eligibility for Substitution/Waiver;"
- 2. Complete Central Maine Community College's accommodation process** and have provided appropriate, current disability documentation (as outlined in the College's "Disability Service Procedure and Documentation") that establishes the impact of the disability on the course required;
- 3. Request in writing the need for substitution/waiver of a course in the degree program** and why the student believes he/she should be granted the substitution/waiver will be provided by the student to the Disabilities Coordinator; and
- 4. Sign a release of information** so that documentation can be shared with Committee members, who understand the confidential nature of this information.

The Disabilities Coordinator will then:

- Make the initial assessment of the relationship between the requested substitution and the disability; and
- Forward the student's request for substitution/waiver along with any associated documentation (including disability documentation) to the Academic Dean, who is the chair of the Committee.

The Academic Dean will then convene the Committee within 10 working days of receiving the request, and the Committee will:

- Meet and engage in a deliberative process to review the program requirements and the purpose of the requirement at issue;
- Once the purpose of the requirement has been established, the Committee will consider courses in other disciplines where the requirements and goals might approximate those of the course in question;

# Academic Policies and Procedures

- After the alternatives have been examined, the Committee will determine, consistent with any legal advice, whether another course(s) would be an acceptable substitution for the program requirement. The Committee will have 15 working days from its first meeting to carefully review all information and come to a reasoned decision.

If the Committee determines consistent with any legal advice that:

- There is no reasonable substitute for the required course, and that elimination of the requirement would result in a fundamental alteration of the program of study, the request for substitution/waiver will not be granted; or
- That reasonable substitute(s) do exist, a waiver for the required course will be granted and the opportunity to take the substitute course(s) will be granted.

The Academic Dean will then:

- Notify the student and Committee members within 10 working days of the end of the Committee's deliberation period of the Committee's decision, and indicate what, if any, actions are necessary to take. If the substitution/waiver is granted:
- This will be indicated on the student's transcript;
- All other degree requirements, such as the total number of credits required for the degree, must be met; and
- A record of this process will be well-documented so that others who were not involved can understand the deliberate, reasoned process completed, the alternatives considered, and the reasons for the final decision.

If the student does not agree with the decision of the Committee, the student may:

- File a grievance.

## Disabilities Grievance Procedure

The following grievance procedure must be used by a student for complaints regarding claims of disability and requests for accommodation.

### 1. Contents of the Grievance

The grievance must be in writing; contain the name, address, and telephone number of student; and the location, date and description of the alleged discrimination. Alternative means of grieving, such as personal interview or tape-recording, are available upon request, if required by disability.

### 2. Filing the Grievance

The student or, if necessary because of disability, a designee must submit the grievance to the ADA Compliance Officer ("Officer") as soon as possible and no later than twenty (20) calendar days after the alleged violation. The Officer

may be contacted at Central Maine Community College, Affirmative Action Office, Jalbert Hall (207) 755-5233.

### 3. Officer's Decision

As soon as practical after receipt of the grievance, the Officer will meet with the student to discuss the complaint. As soon as practical after the meeting, the Officer will respond in a format accessible to the student (such as large print, Braille or audiotape). The response will explain the position of the College and, where practical, offer options for substantive resolution.

### 4. Student Appeal to College President

Within fifteen (15) calendar days after receiving the Officer's decision, the student may appeal to the College President or designee.

### 5. Decision of the College President

As soon as practical after the receipt of the appeal, the College President or designee will meet with the student to discuss the appeal. As soon as practical after the meeting, the College President or designee will issue in a format accessible to the student a final decision regarding the grievance.

### 6. Record Retention

The college will retain all grievances, appeals and responses in the above Procedure for at least three (3) years.

## Service Animal Guidelines

For guidance on the use of service animals on campus, contact the Disabilities Services Office at 755-5277 or (800) 891-2002 ext. 277 or the Maine Relay at 1-800-457-1220.

## Academic Support

Central Maine Community College is committed to a student's academic success. Some students arrive at college unprepared for academic work, have been away from school for many years, or with a poor high school record, and find balancing work, family, college and other commitments very difficult. In response, Central Maine Community College has developed programs designed to assist students with time management, study skills and basic academic competence.

## Advising

All full and part-time matriculated students are assigned an academic advisor after being admitted to a program. The primary role of the advisor is to guide the student toward accomplishment of his/her academic goals and meeting the degree or certificate program requirements. The student is ultimately responsible for adhering to the College's policies and procedures while also meeting the educational requirements for the selected program of study. Central Maine Community College also has many resources on campus to assist students with their academic, social, and career needs. The primary functions of the academic advisor are to



# Academic Policies and Procedures

meet with the student periodically to review his/her academic status and progress, and to review and approve courses. Students may request a change of advisor at any time during his/her program. Change requests must be approved by the department chair or the dean of academic affairs and submitted to the registrar.

## **Developmental Courses**

Developmental courses are formal courses designed to improve study and learning habits, reading skills, writing competence, and /or mathematics abilities. Basic skills are expected to be developed to satisfactory levels within two academic semesters. Developmental courses are listed in the Course Descriptions section of this catalog and do not apply toward degree completion. These courses should be completed in the first year. If students need to take developmental courses, it may lengthen the time it takes to complete a degree.

## **Learning Commons**

The Learning Commons provides library services and reference support, space for individual and small-group work, the Computer Help Desk, and an open computer lab. The Learning Commons also includes wall-mounted and table-mounted interactive digital touch screens, SMART Kapp boards, and other technology. The Writing Center and Math/Science Center are also located in the Learning Commons.

## **Learning and Advising Center**

The Learning and Advising Center provides students with guidance, information, and support in their academic journey at CMCC. Advisors work as partners with students to help create academic plans to meet academic requirements while meeting the personal needs of students.

## **The Writing Center**

Located in the Learning Commons, the Writing Center provides individualized non-credit instruction to students working on writing assignments for any Central Maine Community College course, as well as resumes and cover letters, essays for scholarships, and college admission.

Students taking online and hybrid courses may access the Online Writing Center. In order to accommodate the needs of our distance students, the online consultations are restricted to students enrolled in CMCC online and/or hybrid courses only.

## **The Math & Science Center**

Located in the Learning Commons, the Math & Science Center provides tutoring services in the areas of math and science. Students may drop in for support or make an appointment for more in-depth individual tutoring to help understand and solve problems.

## **TRIO Student Support Services/ Success**

## **Center**

TRIO Student Support Services is a federally funded program that provides a wide variety of resources for qualified students. These services include tutoring, advising, transfer services, mentoring and other individual academic support. TRIO participants must complete an application and meet certain eligibility guidelines before participating in the Program. Students interested in finding out more about TRIO should contact the TRIO Director (207) 755-5238 or visit the TRIO Success Center in Jalbert Hall, room J-415. The Success Center located in J-415 is a quiet study area offering academic resources such as computers, learning carrels, and assistive technology.

## **Transferring from Central Maine Community College**

Central Maine Community College is accredited by the New England Commission of Higher Education. Because of this accreditation, most academic credits will transfer to other colleges and universities. Liberal Arts (general education) courses may transfer more easily than technical courses. The receiving school has the right to determine whether or not academic credit will transfer, and how the transfer credit will apply toward specific degree programs.

To have a Central Maine Community College transcript sent to another institution, please contact the Registrar's Office for the form "Transcript & Record Request Form." This form is also available on the college website.

For further assistance transferring from Central Maine Community College, contact the Director of Placement and Transfer Services at (207) 755-5239.

## **Transfer Agreements**

Transfer agreements, sometimes called articulation agreements, exist between the college and other institutions to ensure the smooth transferability of academic credit. Most of the college's agreements link Central Maine Community College courses and degrees with baccalaureate degree programs.

## **AdvantageU Program**

Central Maine Community College has a direct transfer agreement with the University of Maine System, through the AdvantageU Program. Designed for students completing the Associate in Arts degree in Liberal Studies, participation in AdvantageU provides a number of benefits to students throughout the transfer process. Contact the Director of Placement and Transfer Services at (207) 755-5239 for more information.

## **Other Transfer Agreements**

Central Maine Community College has additional transfer agreements with the University of Maine System, private Maine colleges and universities, as well as institutions outside the state. Some agreements are with institutions

# Academic Policies and Procedures

offering distance learning degree programs, providing the convenience of online courses.

For a complete list of current Central Maine Community College transfer agreements, refer to the college website at [https://cmconnect.cmcc.edu/ICS/Campus Life/Campus Groups/Transfer Services](https://cmconnect.cmcc.edu/ICS/Campus%20Life/Campus%20Groups/Transfer%20Services).

These agreements facilitate student transfer from Central Maine Community College to the institutions listed, recognizing that specified Central Maine Community College courses will apply toward the Baccalaureate Degree.

For further information on the transfer of Central Maine Community College credit to other institutions, contact the Director of Placement and Transfer Services at 755-5239 or the Admissions Office at 755-5273.

## Satisfactory Academic Progress (SAP)

The standards of satisfactory academic progress for federal financial aid are the same as the College's standards for matriculation. The following are the requirements for a student (degree or certificate) to be in good academic standing.

Academic Standing: The academic status of matriculated students is determined by:

1. Total credit hours attempted and earned in an established time frame called "pursuit of program," and
2. Semester and cumulative grade point average as calculated at the end of every grading period including summer terms.

Good Academic Standing: A matriculated student is considered to be in good academic standing at the end of a semester and for subsequent semesters if the student meets the criteria for satisfactory progress and pursuit of program.

Satisfactory Progress: A student is considered to be making satisfactory progress if he/she maintains a cumulative GPA at or above the level defined in Table 3 (pg 24).

Satisfactory Pursuit of Program: Students are considered to be making satisfactory pursuit of program by maintaining 67% completion rate. Successful completion is defined by receiving a grade of A, B, C, or D for any course taken in residence (including plus/minus grades).

Maximum Time Frame: All students must complete their program in a period not exceeding 1.5 times the normal length of the program as measured in credit hours attempted. For example, if a program requires successful completion of 60 credit hours, the student may not attempt more than 90 credit hours (1.5 X 60). In order to graduate, a student must successfully complete 100% of the required courses and obtain a minimum CGPA of 2.0 within the 1.5 maximum time frame.

The 67% completion rate supports those students who repeatedly change their enrollment status from full-time to less than half-time. For example, if students maintain a 15 hour credit load per semester, they could complete a 60 credit hour degree in 4 semesters but they could have up to 6 semesters.

Enrollment Status: Maximum time frame is based on number of semesters and enrollment status. Full-time = 6 semesters, 3/4 time = 8 semesters, 1/2 time = 12 semesters, and less than 1/2 time = 24 semesters. The SAP policy is applied consistently for students who are enrolled in any enrollment status and in any academic program.

Credit Hours Attempted: Credit hours attempted include all credit hours taken in residence at Central Maine Community College. This includes courses with grades of W, R, I, L, F, AW. In addition, applicable transfer (T) credits are included in the total credit hours attempted, but they are not calculated in the GPA. If the student has attempted less than 150% of all the course work at that time, he/she will be considered for Title IV aid for the following semester. If due to withdrawal, failed courses, etc., the student has exceeded the maximum number of attempted credits for his/her program, he/she will no longer be eligible for federal financial aid programs (grants or loans) for any future semester.

Developmental Courses: Developmental and ESL courses, if taken, will affect satisfactory academic progress. These courses will be counted in the number of credit hours attempted, in the grade point average and in the maximum time frame calculation.

Repeated Courses: If a student repeats a course, the course will count in the maximum number of attempted credits each time the course is taken. However only the highest grade achieved will be calculated in the CGPA. A student's financial aid may not cover multiple retakes of the same course. A review by the Financial Aid office should be completed to verify financial compliance.

Course Withdrawn: If a student withdraws from courses in the add/withdrawal period, those courses will not be included in the count of credits attempted.

Change of Major: If a student changes majors, only courses that apply to the new program will be calculated in the 1.5 maximum time frame and CGPA.

Sanctions: Any student who fails to achieve any of the requirements above is subject to some type of sanction and may lose all eligibility for federal, state, and institutional financial aid (grants, scholarships, and loans). Faculty advisors will be notified of the academic status of their advisees not meeting SAP.

Academic Warning: A student is considered on academic warning when they receive a GPA below 2.0 for a semester. A student on academic warning is encouraged to seek assistance with his/her academic advisor prior to the start of the next semester to plan a course of action for returning to good academic standing.

# Academic Policies and Procedures

Academic Probation: A student will be placed on probation if he/she:

1. Fails to maintain the cumulative GPA as indicated in Table 3 (page 24), or
2. Has a cumulative completion rate of less than 67%

A student on probation must receive a semester GPA of 2.0 at the end of the next term to avoid being placed on suspension. Students should meet with their academic advisor to obtain an intervention strategy for returning to good academic standing.

Academic Suspension: A student will be placed on suspension if he/she either:

- In the first year, first semester, earns less than .70 GPA;
- After a probationary term, the following semester GPA is less than 2.0;
- After a probationary term the cumulative completion rate is below 67%;
- After a probationary term fails to maintain a cumulative GPA as indicated in Table 3 on page 24.

A student on suspension may request reinstatement after one academic semester. During suspension the student may not take Central Maine Community College course work even as a non-matriculated student. A student on suspension may no longer be certified for VA education benefits.

Academic Dismissal: Students faced with academic suspension for a second time are dismissed from the College. Students who are dismissed

may not take courses at Central Maine Community College, even as non-matriculated students.

Academic Appeals: A student may appeal the academic suspension by submitting a letter to the dean of academic affairs by following the instruction in the suspension letter. It is highly recommended the student submit the appeal several weeks before the start of the semester.

The letter must include clearly stated and documented examples of extenuating circumstances that prevented satisfactory progress. Examples of extenuating circumstances include severe illness, severe injury, death in the family, and/or unforeseen or unavoidable personal situation.

Third party documentation is also encouraged. Some examples include: medical and/or legal statements and/or documents that verify the student's appeal request. These documents will be held in strict confidentiality on behalf of the student. The appeal may also include written support from either a faculty or staff person stating their opinions and possible assistance they are willing to provide.

The appeal must also explain why the circumstances no longer exist and

what the student will do to ensure that he/she meets satisfactory academic progress in the future. If the appeal is granted, a letter will be emailed to the student that stipulates a contractual intervention strategy that would assist the student in meeting educational standards. Such strategies may include but are not limited to:

- Repeating all courses where the final grades of D, F, L, AW, or W were recorded; and/or
- Enrolling in fewer courses in a given term; and/or
- Limiting participation in nonacademic activities.

If the appeal is denied the student may apply for reinstatement to the College after meeting the terms of the suspension or dismissal. Reinstatement requests follow the same procedures as an initial appeal and typically provide evidence of significant academic improvement. Such evidence would normally include high quality academic course work at another institution.

Appeals of Maximum Time Frame: A student who has been suspended or dismissed due to exceeding the maximum time frame may wish to appeal that status if he/she believes that there are mitigating circumstances. Examples of mitigating circumstances include: medical problems, death in the family, and curriculum changes.

If a student changes major or graduates and requests a second degree, his/her transcript will be evaluated to determine what portion of the requirements for that curriculum has been satisfied. After a degree audit has been completed, a new count of credits attempted will be determined based upon the credits completed that satisfies requirement for the new major. For example, if a student attempted 60 credits but only 30 credits (including transfer credits) will satisfy requirements for the new major, the count of the attempted credits will be reset from 60 to 30. The student will now have a new minimum of 30 additional credits to complete the new major.

*NOTE: Other than when an appeal is granted for unusual or mitigating circumstances, a student can reestablish eligibility only by taking action that bring him/her into compliance with the quantitative and qualitative components of Central Maine Community College's standards for satisfactory academic progress including maximum time frame.*

## Academic Progress Reports

During the semester, when faculty deems it appropriate, notice is issued to students whose performance is unsatisfactory. The notice may be posted in CMConnect or communicated directly to the student.

## Grade Reports

Printed grade reports are not mailed to students unless specifically requested. Students can login to view and print their grades. Students who want to access their academic transcript should go to [www.cmcc.edu](http://www.cmcc.edu). Once there, click on "MyCM/Student login". This will bring you to the log in screen where the transcript can be accessed. For login problems

# Academic Policies and Procedures

contact the Registrar's Office at (207) 755-5292. Final grades cannot be secured in advance from the Registrar. Failure to pay a bill within the prescribed period may keep a student from receiving grades. For an explanation of Grades, Symbols and Codes, see Table 1 (page 23). For an explanation of GPA, see Table 2 (page 24).

## Residency

All Associate degree and Certificate programs require a minimum of twenty-five percent (25%) of degree credit coursework to be completed at Central Maine Community College. The degree or certificate will be awarded after all credits have been earned.

## Degrees

Central Maine Community College students may earn multiple degrees but only one degree and major may be pursued at a time. An additional 15 credits and all program requirements must be completed.

## Academic Honors

At the end of each semester an honors list is published for the purpose of recognizing the achievement of matriculated students who have carried a minimum of 6 credit hours and earned a minimum semester grade point average (GPA) of 3.300. No course grade within the term may be below a "C". Any term with an "I" grade will be ineligible for honors recognition. The 3 categories of academic honors are: honors - 3.300 to 3.599; high honors - 3.600 to 3.899; president's honors - 3.900 to 4.000. Students who selected "FERPA restriction" on the application for admission will not have their name published. To make changes to the "FERPA restriction" please contact the Registrar's Office.

## Academic Record Changes

Considerable care is taken to ensure that course registration and grades entered on a student's permanent record are accurate. Any student who suspects a clerical error has been made should take the matter up immediately with the Registrar's Office. Records are assumed to be correct if a student does not report to the Registrar's Office within one year of the completion of the course. At that time, the record becomes permanent and cannot be changed.

## Graduation

### Graduation Requirements

Central Maine Community College awards the Associate in Arts (AA), Associate in Science (AS), Associate in Applied Science (AAS) degrees, Certificate and Advanced Certificate programs are also available. Eligibility for degree or certificate conferment is contingent upon completion of all requirements of a designated program of study in accordance with the Maine Community College System and Central Maine Community College requirements. Students must:

1. Satisfactorily complete all courses in the program.
2. Complete the aggregate number of credit hours in a program with a minimum cumulative grade point average (GPA) of 2.0.
3. Participate in College-wide or program-specific assessment activities.
4. Meet the minimum residency requirements as defined in the Central Maine Community College catalog.
5. Fulfill all financial obligations to the College in order to receive a degree or certificate.

### Effective Catalog for Graduation Requirements

New students must satisfy the graduation requirements set forth in the catalog in effect for the first semester of their attendance as a matriculated (admitted) student. A student whose matriculation has expired will graduate under the catalog requirements in effect when readmitted. A student who changes programs will also follow the catalog in effect at the time of the matriculation change. The electronic version of the catalog is the official edition.

### Graduation Procedure

1. Before registering for the semester in which graduation requirements will be completed, students should meet with their advisor to review eligibility to graduate.
2. After meeting with advisor, student will log into CM Connect and fill out the Graduation Confirmation (found on the left side of Student Tab page). There are three graduation points in the academic year. To help with planning and so that students have relevant information concerning graduation, the Graduation Confirmation form should be completed by:
  - Last Friday of March for May graduation
  - Last Friday of July for August graduation
  - Last Friday of November for the December graduation
3. The student will receive an email confirming receipt of the Graduation Confirmation from the Registrar's office.
4. The Registrar's office will preview the student's degree audit and email student if there are any issues that arise.
5. The College holds an annual graduation ceremony each May. Students wishing to participate in commencement ceremony must have completed and submitted their Graduation Confirmation, (found on the left side of Student Tab page) and ordered regalia (cap and gown) no later than the last Friday in March.

# Academic Policies and Procedures

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Late submissions may prevent the student from being in the Graduation program and/or not having regalia available.

6. Students with up to six credit hours remaining to complete the degree or certificate requirements of their program may participate in the graduation ceremony. However, enrollment for remaining coursework is required in the next, immediately available semester.
7. A final official transcript is required for all approved and completed transfer credit prior to the last semester of enrollment. Transfer credit acceptance after this period will likely result in a delay of degree or certificate award.



# Placement and Prerequisites/ Advantage U

**Prerequisites/Placement for Mathematics:** Prerequisite courses from Central Maine Community College or other institutions must be a grade of C (not C-) or higher.

Course Number and Title	Central Maine Community College Course Prerequisites	or	SAT Math Score	or	SAT Math Score with 12th Grade College Prep Math	or	ACT Math Score with College Prep Senior Year Math	ACT Math Score without College Prep Senior Year Math	Next-Generation ACCUPLACER		
									Quantative Reasoning for Algebra and Statistics (QRAS)	or	Math
MAT 030 - Basic Math	---	or	200	or	200	or	13	14	<230	and	200
MAT 050 - Algebra I	MAT 030	or	450	or	420	or	15	16	<230	and	250
MAT 080 - Pre Statistics	MAT 030	or	450	or	420	or	15	16	<230	and	250
MAT 100 - Intermediate Algebra	MAT 050	or	480	or	450	or	17	18	230	and	N/A
MAT 101 - Business Math	MAT 030	or	480	or	450	or	17	18	230	and	N/A
MAT 102 - Numbers and Logic	MAT 030	or	480	or	450	or	17	18	230	and	N/A
MAT 104 - Technical Mathematics	MAT 050	or	480	or	450	or	17	18	230	and	N/A
MAT 105 - Geometry & Trigonometry	MAT 100	or	480	or	450	or	17	18	230	and	N/A
MAT 122 - College Algebra	MAT 100	or	500	or	480	or	19	20	250	and	N/A
MAT 125 - Finite Mathematics	MAT 100	or	500	or	480	or	19	20	250	and	N/A
MAT 132 - Pre-Calculus	MAT 122	or	550	or	500	or	N/A	N/A	275	and	N/A
MAT 135 - Statistics	MAT 080 or 100	or	500	or	480	or	19	20	250	and	N/A
MAT 283 - Calculus I	MAT 132	or	600	or	580	or	N/A	N/A	300	and	N/A

Course	SAT ERW Score	or	ACT Score	or	Next-Generation READ & WRIT Combined Score	LOEP Accuplacer Combined Score
ENG 090 - English Workshop	200		15	or	300-459	—
ENG 105 - College Writing Seminar	420	or	17 or higher	or	460-499	—
ENG 101 - College Writing	480	or	18 or higher	or	500	327 or higher
ESL Level I					—	196-279
ESL Level II					—	280-326

\*Current Next-Generation Accuplacer scores are subject to change

# Multilingual Learners

**Central Maine Community College's English as a Second Language Program is designed to help students learn English used at the college level, and will build upon the student's previous English language study (in high schools, adult education, or in the student's home country). These courses will also help prepare students for the TOEFL, so they can continue their education at another college or university.**

## ESL Placement

Students are placed into courses with the help of an academic advisor. This allows students to be in courses with others of approximately the same level of proficiency in English. In addition, students receive the correct type and intensity of instruction for their proficiency level.

The Level of English Proficiency (LOEP) test is offered to all incoming students whose first language is not English. The LOEP is a computerized test used by many colleges and universities.

Scores from the three sub-tests—Reading skills, sentence meaning and language use - are added to determine the overall score.

The following guidelines assist in advising students:

- 327 or higher—the student is exempt from taking ESL courses
- 280 to 326—the student is placed in Level II ESL courses
- 196-279—the students is placed in Level I ESL courses
- Less than 196—the student is advised to take ESL courses through adult education. After three months of English classes, the student may return to CM to retake the tests, which will re-activate the Central Maine Community College application.

## The ESL Curriculum

Central Maine Community College offers eight ESL courses, roughly divided into two levels. Level I is for students entering with a low intermediate level of proficiency in English, with LOEP scores between 196 and 279. Level II is designed for students entering with a high intermediate level of proficiency in English, with LOEP scores between 280 and 326. Students are able to attend full-time, which allows qualifying students to receive financial aid. Courses numbered below 100 are not awarded degree credit.

### Level I ESL courses include:

071: Writing and Grammar. Focuses on developing intermediate academic English skills using standard American English. The priority is written work, though reading, speaking and listening are also expected. Take with ESL 072.

072: Reading and Vocabulary. Focuses on reading as a method to build a strong working English vocabulary as well as to understand the techniques used in American texts to organize information, convey meaning and to stimulate thought. Written and oral responses to reading are expected.

Take with ESL 071.

073: Oral Language. Focuses on developing oral fluency in conversation, pronunciation, and presentation skills, and improving listening comprehension. Some reading and writing is also expected.

075: Building an Academic Vocabulary. Focuses on helping students acquire sufficient vocabulary to succeed in college. The course covers words, idioms, academic terms (such as those used on tests and assignments) and course-specific vocabulary (such as for math, or science). Open to any ESL student, regardless of placement level. All ESL students are strongly encouraged to take this course.

### Level II ESL courses include:

101: Academic Writing and Grammar. This course focuses on developing advanced academic writing skills, and covers the simple and progressive tenses, adverbs, time clauses, and conditionals. It also introduces academic writing form and style. Take with ESL 102. Successful completion is a prerequisite for ENG 101 or ENG 105.

102: Literature. This course introduces students to various genres of literature, with a focus on exploring cultural influences and social interaction. It includes both historical and contemporary literature, as well as writing, speaking and listening. Take with ESL 101

103: American Studies. This course helps students develop an understanding and appreciation of the current social and economic structure of the US, as well as the history of the country's institutions. The course introduces students to the rigor of college coursework, academic vocabulary and a variety of assignment types.

105: Listening. This course focuses on aural comprehension of academic lectures taken from core courses typically recommended for first year students. The course rigorously prepares students to take notes on the salient lecture points. Students will be exposed to a variety of academic lectures to enhance their listening comprehension skills.

Prerequisite: Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test. (See catalog ESL LOEP Placement scores.)

The Level II courses may be awarded Associate degree credit, and may be applied to the Central Maine Community College core, depending on the student's major:

ESL 101: Communication Core (3 credits)  
ESL 102: Humanities Elective (3 credits)  
ESL 103: Social Science Elective (3 credits)  
ESL 105: Humanities Elective (3 credits)

# Credential Descriptions

## Criteria for Academic Credentials

The successful completion of a catalog program of study offered by a Maine Community College System college entitles the student to a certificate or associate degree as appropriate to the curriculum (Maine Community College System Policy 302). The basic criteria, in part, for the award of these credentials are described below. In all instances, care must be taken to ensure compliance with accreditation standards which includes the achievement of a minimum cumulative grade point average of 2.0.

A **Certificate** is awarded upon successful completion of a prescribed program of vocational and/or technical courses that leads to an occupational skill. Certificates may also be considered as the first year of an associate degree program and, if so, must meet the appropriate academic requirements.

- Building Construction Technology
- Business Administration and Management
- Criminal Justice Forensic Investigation
- Culinary Arts
- Electromechanical Technology
- Forensic Investigation
- Heating Ventilation, Air Conditioning and Refrigeration Technology
- Medical Coding
- Plumbing
- Precision Machining Technology

An **Advanced Certificate** is awarded upon the successful completion of a prescribed program of vocational and/or technical courses designed to enhance the occupational skills of students seeking employment in highly specialized occupations.

- Education
- Network Security
- Police Operations
- Precision Machining Technology

An **Associate in Applied Science** credential is awarded upon the successful completion of a program of studies designed for employment in a specific occupation. The curriculum for such programs may offer some opportunity for transfer into a baccalaureate program.

- Accounting
- Architectural and Civil Engineering
- Automotive Technology
- Automotive Technology Ford ASSET
- Building Construction Technology
- Building Construction Technology Jobsite Track

- Business Administration and Management
- Career Studies
- Computer Technology
- Criminal Justice
- Culinary Arts
- Early Childhood Education
- Electromechanical Technology
- Esports Management
- Facilities Maintenance & Management
- Forensic Science
- Graphic Communications
- Heating Ventilation, Air Conditioning and Refrigeration Technology
- Human Services
- Medical Assistant
- Medical Coding and Electronic Health Records
- Network Security/Computer Forensics
- Physical Fitness Specialist
- Plumbing & Heating Technology
- Precision Machining Technology
- Restaurant Management

An **Associate in Science** credential is awarded upon successful completion of a program designed primarily to prepare students to transfer to an upper division baccalaureate program. The curriculum for such programs shall also provide employment skills.

- Business Administration Transfer
- Computer Technology
- Education
- Justice Studies
- Life Science
- Nursing

An **Associate in Arts** credential is awarded upon the successful completion of a program designed to prepare students to transfer to an upper division baccalaureate program. Curriculum for such programs is built on the foundation of liberal studies with considerable flexibility in selecting strands of electives to develop depth in a prerequisite knowledge required for further study at the baccalaureate level.

- General Studies
- Liberal Studies

# Programs and Course Abbreviations and Titles

AA = Associate in Art	HIS = History
AAS = Associate in Applied Science	HUM = Humanities
AS = Associate in Science	HUS = Human Services
ACC = Accounting	
ACE = Architectural & Civil Engineering	INS = Interdisciplinary Studies
ANT = Anthropology	
ART = Art	JUS = Justice Studies
ASL = American Sign Language	
AST = Astronomy	LER = Learning Resources
AUT = Automotive Technology	LIF = Life Science
	LIB = Liberal Studies
BCA = Business & Computer Applications	
BCT = Building Construction Technology	MAT = Mathematics
BIO = Biology	MCO = Medical Coding and Electronic Health Records
BUS = Business (Administration and Management)	MEA = Medical Assistant
	MET = Medical Transcription
CAD = Computer Aided Drafting	MUS = Music
CAS = Career Studies	
CHY = Chemistry	NUR = Nursing
CNS = Network Security/Computer Forensics	
COM = Communication	OHS = Occupational Health and Safety
CPT = Computer Technology	
CRJ = Criminal Justice	PHI = Philosophy
CFI = Criminal Justice/Forensic Investigation	PHF = Physical Fitness Specialist
CJF = Criminal Justice/Computer Forensics	PHT = Plumbing & Heating Technology
CUA = Culinary Arts	PHY = Physics
	PMT = Precision Machining Technology
ECE = Early Childhood Education	POS = Political Science
ECO = Economics	PSM = Parts and Service Management
EDU = Education	PSY = Psychology
ELT = Electromechanical Technology	
ENG = English	REE = Real Estate
ESL = English as a Second Language	REL = Religion
ESP = Esports Management	REM = Restaurant Management
FMM = Facilities Maintenance & Management	SCI = Science
FOA = Ford ASSET (Automotive Technology)	SOC = Sociology
FRE = French	SPA = Spanish
FRN = Forensic Science	SSC = Social Science
GEO = Geology	THE = Theater
GEY = Human Geography	
GRC = Graphic Communications	WST = Women's Studies
GEN = General Studies	
HVT = Heating Ventilation, Air Conditioning & Refrigeration Technology	

*Attention: Located on the following pages are the program descriptions and matrices. Prospective students are advised to also check individual program prerequisites in the Admissions section of the catalog.*

# Programs of Study

Central Maine Community College offers numerous programs of study that lead to the Associate Degree and Certificate award. Beginning in the fall of 2002, the College adopted a minimum General Education Core Curriculum that is applicable to all Associate Degree programs. Therefore, all Associate Degree programs of study require courses in the disciplines that comprise 'general education'. The goal of General Education at Central Maine Community College is to foster development of common competencies among all Associate Degree students. This will enable them as graduates to be successful and productive individuals, be it in the workplace, in upper division programs of study or in any other personal or professional endeavor they pursue.

Students undertake General Education studies which comprise the disciplines of the Humanities, Social Sciences, Mathematics and Sciences. These courses provide students with the opportunity to develop competencies deemed necessary by faculty, employees and students.

## **Central Maine Community College believes that the educated person possesses the following:**

Competency in Critical Thinking and the Scientific Method of Reasoning by being able to:

- Identify and define a problem or research topic to be studied
- Frame the problem with questions and identify the best methodologies for studying the issues
- Effectively gather information
- Investigate potential solutions
- Analyze and interpret results
- Present results in a clear and well-articulated manner

Competency in Communication by being able to:

- Interpret and effectively present, either in oral or written format, well-reasoned interpretation of assignments
- Write a logical, well-organized document utilizing proper grammar, punctuation and spelling
- Effectively communicate (individually or as part of a team) with diverse audiences in a variety of settings

Competency in Social Responsibility by being able to:

- Recognize and appreciate individual and cultural differences in human behavior, attitudes and social norms
- Examine his/her attitudes, values, and beliefs regarding the human experience
- Recognize the value of civic and political participation in the local, national and global arena

Competency in Lifelong Learning and Self Growth Skills by being able to:

- Evaluate opportunities for personal and career growth
- Initiate self-planning and management programs
- Incorporate new ideas and experiences into a personal value system
- Appreciate the importance of life-long learning

Competency in Information Literacy by being able to:

- Interpret and effectively disseminate information from a wide variety of materials such as books, journals, reports, tables, and graphs located in either print or electronic formats
- Use citations in written projects that show clearly their understanding of the issues of copyright and plagiarism and the ethical use of information
- Use computers and other technology appropriately to complete assigned tasks

Competency in Creative Arts by being able to:

- Study, create or participate in a work that demonstrates artistic and/or aesthetic value
- Critique a work's artistic and/or aesthetic value
- Demonstrate an appreciation of the creative arts in personal, cultural and historical perspectives

## **General Education Core Curriculum**

### **Associate in Applied Science**

Writing	6 credits
Quantitative Literacy (any MAT) /Natural Science	6-7 credits
Creative Arts/Humanities/Social Science	6 credits
Any General Education Elective	3 credits

### **Associate in Science**

Writing	6 credits
Quantitative Literacy (any MAT) /Natural Science	12-15 credits
Creative Arts	3 credits
Social Science	3 credits
Humanities	3 credits
Diversity/Ethical Reasoning	3 credits
Any General Education Elective	3 credits

### **Associate in Arts**

Writing	6 credits
Quantitative Literacy (any MAT)	3-4 credits
Natural Science	4 credits
Creative Arts	3 credits
Social Science	6 credits
Humanities	6 credits
Diversity	3 credits
Ethical Reasoning	3 credits

## **Approved Courses for Writing, Creative Arts, Ethical Reasoning and Diversity**

### **Writing**

CRJ 122 Criminal Law & Report Writing I  
 CRJ 212 Criminal Investigation & Report Writing II  
 ENG 101 College Writing  
 ENG 105 College Writing Seminar  
 ENG 125 Introduction to Literature  
 ENG 150 Introduction to Journalism  
 ENG 201 Technical Writing  
 ENG 211 Creative Writing



# Programs of Study

ENG 220 Business Communication  
ENG 221 Advanced Composition and Research  
JUS 247 Research Methods for Justice Studies

## **Creative Arts**

ART 101 Introduction to 2-D Design  
ART 102 Principles of 3-D Design  
ART 103 Drawing I  
COM 100 Public Speaking  
ECE 204 Creative Arts & Creative for Young Children  
GRC 102 Graphic Design I  
GRC 118 Introduction to Digital Photography  
INS 296 Interdisciplinary Seminar  
THE 101 Introduction to Theater  
THE 102 Introduction to Acting

## **Ethical Reasoning**

HUS 112 Introduction to Community Health  
PHI 101 Critical Thinking  
PHI 111 Introduction to Ethics  
PSY 114 Child Development  
PSY 151 Interviewing and Counseling  
PSY 116 Psychology of Group Dynamics  
PSY 202 Developmental Disabilities and Psychosocial Rehabilitation

## **Diversity**

ANT 101 Cultural Anthropology  
ASL 101 American Sign Language I  
ASL 102 American Sign Language II  
CRJ 225 Race & Ethnicity in Law Enforcement  
ECO 201 Introduction to Macroeconomics  
ECO 202 Introduction to Microeconomics  
EDU 222 Social Justice & Diversity in the Classroom  
ENG 112 American Literature I (Pre 1865)  
ENG 113 American Literature II (Post 1865)  
ENG 215 Film as Literature  
ENG 230 Children's Literature  
GEY 101 Human Geography  
HIS 132 US History Since 1877  
HIS 132 US History to 1877  
HIS 151 Western Civilization I  
HIS 152 Western Civilization II  
HIS 220 America and the Cold War  
INS 211 The Asian Tradition  
PHI 151 Introduction to Western Philosophy  
POS 150 Introduction to American Politics

POS 151 American State & Local Government  
POS 160 Introduction to International Relations  
POS 205 Introduction to Comparative Politics  
PSY 111 Developmental Psychology  
PSY 201 Social Psychology  
REL 101 Comparative Religion  
SOC 101 Introduction to Sociology  
SOC 200 Issues in Diversity  
SOC 201 Sociology of Aging  
SOC 210 Crime and Deviance  
SOC 215 Sociology of Gender  
SOC 220 Sociology of Family  
SOC 230 Human Sexuality  
WST 101 Women's Studies

## **General Education Elective Courses by Abbreviation**

- Communications - COM 100, 101, 121, 151; ENG 131, 201, 211, 220, 221.
- Humanities - Art (ART), American Sign Language (ASL), Communications (COM), English (ENG), English as a Second Language (ESL), French (FRE), Humanities (HUM), Interdisciplinary Studies (INS), Music (MUS), Philosophy (PHI), Religion (REL), Spanish (SPA), Theater (THE), Women's Studies (WST)
- Social Science - Anthropology (ANT), Economics (ECO), Geography (GEY), History (HIS), Justice Studies (JUS), Political Science (POS), Psychology (PSY), Sociology (SOC), Social Science (SSC)
- Math/Science - Astronomy (AST), Biology (BIO), Chemistry (CHY), Geology (GEO), Mathematics (MAT), Physics (PHY)

**Please Note:** Not all programs can be completed in the evenings. Curricula may be modified without notice as adjustments are made in response to business/industry/occupational needs, Advisory Committee recommendations as well as compliance with the Maine Community College System policies and accreditation standards. Some programs have a selective admissions policy. Please contact the Admissions Office for information.

A program of study may be discontinued if it fails to meet the standards established by the Maine Community College System Board of Trustees, or if the College has insufficient funds to sustain it. In the event that a program of study is to be discontinued, the College will make reasonable effort to ensure that students matriculated in that program have the opportunity to complete the program. To that end, the College will offer the courses needed for graduation in the sequence and semester outlined in this catalog; or the College will accept credits for the courses needed from another accredited institution of higher education provided the student has earned a grade of "C" (not "C-") or better, and when necessary will waive residency requirements.

Many courses have prerequisites and/or corequisite. It is important to check these requirements prior to registration. A prerequisite is a course or knowledge base that is required prior to taking a course. A corequisite is a compulsory accompanying course that must be taken along with another. Academic Advisors will assist in the appropriate course selection sequence.

## Program Description

The Associate in Applied Science Degree in Accounting will provide individuals with broad exposure to general business activities and practices and an in-depth understanding of fundamental accounting procedures and supporting computerized applications.

Specifically, the program is designed to prepare students for entry level positions or to advance in accounting related career fields. In addition, students who complete the program will have a knowledge and academic base equivalent to the first two years of many four-year degree programs in accounting.

## Career Opportunities

Graduates will be qualified for accounting related occupations such as bookkeepers, accounting and auditing clerks, auditors, adjustment clerks and tax preparers. Additional experience and/or education can lead to supervisory and administrative positions.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Evaluate business transactions and record journal entries that demonstrate knowledge of Generally Accepted Accounting Principles (GAAP).
2. Demonstrate knowledge of current accounting practices and use of accounting terminology.
3. Utilize technology to assess, evaluate, and apply information.
4. Demonstrate proficiency in the preparation, analysis and use of financial statements.
5. Utilize knowledge of the practice of transferring accounting theory into actual practice.

**High school prerequisite(s) for program admission:**  
**Algebra I**

**See next page for 100% online suggested course sequence.**

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ACC 210	Principles of Accounting I	3
BUS 100	Understanding Business	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 101*	Business Mathematics	3
BCA ____	Select <b>one</b> of the following:	3
	BCA 241 Spreadsheets	
	BCA 246 Database Management	
Semester II		
ACC 212	Principles of Accounting II	3
ENG 220	Business Communications	3
MAT 122*	College Algebra	3
PHI 101	Critical Thinking	3
____	Elective: Social Science	3
	Select <b>one</b> of the following:	
	PSY 101 Introduction to Psychology	
	PSY 116 Psychology of Group Dynamics	
	PSY 120 Psychology in the Workplace	
	PSY 201 Social Psychology	
	SOC 101 Introduction to Sociology	
Semester III		
ACC 240	Intermediate Accounting I	3
BUS 110	Principles of Supervision	3
BUS 260	Finance	3
ECO 201	Macroeconomics	3
COM ____	Select <b>one</b> of the following:	3
	COM 100 Public Speaking	
	COM 101 Interpersonal Communications	
	COM 121 Group Process	
Semester IV		
ACC 242	Intermediate Accounting II	3
ACC 244	Computerized Accounting	3
ACC 265	Managerial Accounting	3
ACC 248	Payroll Accounting	3
MAT 135*	Statistics	3
<b>Total Credit Hour Requirements</b>		<b>60-61</b>

\*Course placement determined by assessment test scores and/or prior college coursework.

Students must earn a grade of C or higher in ENG 101 College Writing or ENG 105 College Writing Seminar and ENG 220 Business Communication in order to meet the degree requirements of this program.

# Accounting (ACC)

**100% ONLINE  
COURSE SEQUENCE**

## Accounting 100% Online Suggested Course Sequence

The 100% online accounting course is intended to be completed in the degree sequence to the right. All courses may be completed in 8-weeks. Individuals may choose to take 16-week courses instead, though it may delay degree attainment.

## Online Program Priority Enrollment Deadline

The Accounting program is available online. The priority enrollment deadline for the online program is May 15, which means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit must be received, and online orientation completed.

## Associate in Applied Science Degree Requirements

1st Term		Credit Hours
BUS 100	Understanding Business	3
ACC 210	Principles of Accounting I	3
2nd Term		
ACC 212	Principles of Accounting II	3
BUS 110	Principles of Supervision	3
3rd Term		
ENG 101	College Writing	3
ACC 248	Payroll Accounting	3
4th Term		
COM 101	Interpersonal Communications	3
MAT 101	Business Mathematics	3
5th Term		
ENG 220	Business Communications	3
MAT 122	College Algebra	3
6th Term		
MAT 135	Statistics	3
PHI 101	Critical Thinking	3
7th Term		
ACC 244	Computerized Accounting	3
BUS 260	Business Finance	3
8th Term		
BCA 241	Spreadsheets	3
ACC 240	Intermediate Accounting I	3
9th Term		
ACC 242	Intermediate Accounting II	3
ECO 201	Introduction to Macroeconomics	3
10th Term		
PSY 120	Psychology in the Workplace	3
ACC 265	Managerial Accounting	3
<b>Total Credit Hour Requirements</b>		<b>60</b>

\*Course placement determined by assessment test scores and/or prior college coursework.

Students must earn a grade of C or higher in ENG 101 College Writing or ENG 105 College Writing Seminar and ENG 220 Business Communication in order to meet the degree requirements of this program.

# Architectural and Civil Engineering (ACE)

## Program Description

The Associate in Applied Science Degree in Architectural and Civil Engineering prepares graduates for entry within the A/E/C field which supports; architects, landscape architects, land planners, municipal and state engineers, environmental, civil, structural, mechanical, and electrical engineers, interior designers, surveyors, facilities managers, fabricators, designer-builders, and suppliers. Graduates become members of the global infrastructure of design and construction in roles as; architectural and engineering technologists, CAD designers, specifiers, estimators, construction management technologists, contractors, and surveying technicians.

ACE prepares graduates in research and design towards document preparation covering design topics in residential and commercial building and site. Courses cover areas in; site civil and landscape, architectural, interiors, structural, mechanical electrical, project management, estimating and scheduling.

## Career Opportunities

Graduates of this program typically accept positions with architectural firms, engineering offices, structural or fabrication departments in industrial plants, contractors, land surveyors, building materials supply firms, and municipal or state engineering offices. Graduates are often afforded advanced standing when electing to further their education at other colleges or universities.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Apply the knowledge, research, techniques, skills and modern tools of the discipline.
2. Apply the knowledge of STEAM, conduct tests, analyze and interpret results and integrate with a level of practical creativity towards solving problems.
3. Apply knowledge of CAD, BIM and engineering based software to create and present conditions and solutions within 2D drawings and 3D modeling.
4. Apply knowledge of BIM and the guidelines of sustainability utilizing the principles of LEED, CSI, NAVFAC/AIA standards and best practices.
5. Demonstrate knowledge of professional and ethical responsibilities.
6. Create and present industry standard design, project driven documents, materials and modeling compositions.

**High school prerequisite(s) for program admission:  
C or higher in Algebra I or meet the prerequisites for  
MAT 105.**

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
CAD 110	Introduction to CAD	3
ACE 113	Architecture and Design	3
ACE 155	Residential Site Design	3
ENG ____*	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
MAT ____*	Select <b>one</b> of the following: MAT 105 Geometry and Trigonometry MAT 122 College Algebra	3
____	Elective: Humanities/Social Science	3
<b>Semester II</b>		
ACE 110	Construction and Materials	3
ACE 121	Structures I	3
ACE 225	Commercial Site Design	3
PHY 121	Technical Physics I Lecture	3
PHY 122	Technical Physics I Lab	1
ENG 201	Technical Writing	3
<b>Semester III</b>		
CAD 262	Intermediate CAD	3
ACE 165	Commercial Building Design	3
ACE 122	Structures II	3
ACE 239	Applied Engineering Science	3
____	Elective: Humanities/Social Science	3
<b>Semester IV</b>		
ACE 268	Trends in Architectural & Civil Engineering	3
ACE 204	Building Systems	3
ACE 274	Project Management	3
ACE ____	Select <b>one</b> of the following: ACE 298 Capstone ACE 297 Internship	3
____	Elective: Humanities/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>64-65</b>

\*Course placement determined by assessment test scores and/or prior college coursework.

# Automotive Technology (AUT)

## Program Description

The Associate of Applied Science Degree in Automotive Technology is designed to prepare highly skilled technicians for an ever-expanding and challenging automotive industry. The program is organized and taught in a manner that meets the standards of the National Institute for Automotive Service Excellence (ASE). In 1986 the Automotive Technology program was awarded full Master Certification in all eight specialty areas from the National Institute for Automotive Service Excellence (ASE), 101 Blue Seal Drive, SE, Suite 101, Leesburg, VA 20175 - telephone (703) 669-6650. Continued certification was awarded in 2016.

Students may choose between two options:

*In House Campus Concentration* option coordinates student learning in the classroom and automotive labs to perform a variety of practical job service. Emphasis is placed on developing competencies with electronic and other test equipment, and the completion of work in accordance with industry standards. OR

*Dealer TraX* option is a state-of-the-art two-year program alternating classroom and laboratory training with paid, on-the-job experience, leading to an Associate Degree in Automotive Technology. Automotive *Dealer TraX* is a joint effort between regional automotive dealers or major independent repair facilities and Central Maine Community College. Graduates of either program are awarded an Associate in Applied Science degree.

An automotive service technician must have the skills of a mechanic and the knowledge to deal with computer controlled engine systems, computer-managed diagnostics, microelectronics, complex pneumatic systems, composite materials, and hydraulics.

Before agreeing to sponsor a student, a dealer may request a criminal background check to include but not limited to criminal background, drug test and credit history.

**Preregistration Requirements:** Prior to enrolling in AUT 180, students must first obtain a sponsor. Before agreeing to sponsor a student, a repair facility may request a criminal background check to include but not limited to criminal background, drug test and credit history. Furthermore, repair facilities often require that students hold a current and valid driver's license free from "current major" violations, as that term is defined in standard auto insurance policies. Repair facilities also retain the right, in their sole discretion, to accept or deny students based on their findings. Please note that the inability to secure a sponsor could jeopardize an individual's ability to meet all the requirements for this degree.

**Prerequisites: ENG 101/105 and MAT 100. Students who do not place into prerequisite courses will be admitted into the in-house program while remedial courses are being completed.**

## Career Opportunities

Students accept positions as general technicians, or as specialists in areas such as front-end alignment, brakes, or automatic transmissions. Automotive dealerships, service stations, companies with large vehicle fleets, and automotive parts supply stores are typical employers of program graduates.

## Other

The College offers a Parts and Services Management advising pathway in the Business, Associate of Applied Science degree.

Upon graduation students accept positions as shop foremen, service advisor, service manager, parts and service manager (service director) or in automobile sales. Other opportunities include parts counter salesperson, parts manager, manufacturer representative and warranty clerk. Job experience within the parts and service field could eventually lead to after-market parts assistant or store manager and automobile dealership general manager owner.

## Program Outcomes

Upon completion the graduate is prepared to:

1. Perform all NATEF (P-1) tasks to diagnose and repair systems associated with automotive chassis components.
2. Perform all NATEF (P-1) tasks to diagnose and repair all assemblies associated with automotive engine and power transmission systems.
3. Perform all NATEF (P-1) tasks to diagnose and repair all components associated with any electrical and electronic control systems.
4. Perform all NATEF (P-1) tasks to diagnose and repair all components associated with any accessory and ergonomic systems.
5. Communicate clearly using written, verbal, and electronic means.
6. Apply safety standards related to the Automotive Industry.
7. Solve mathematical problems related to the automotive field.



# Automotive Technology (AUT)

## Automotive core classes

Semester I		Credit Hours
AUT 100	Introduction to Automotive Technology	1
AUT 110	Brakes	2
AUT 120	Suspension and Alignment	2
AUT 150	Electric Systems I	3
AUT 170	Engine Performance I	3
AUT 200	State Inspection	1
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT ____*	Select <b>one</b> of the following:	3
	MAT 100 Intermediate Algebra	
	MAT 104 Technical Mathematics	

## Select an area of Specialization

### In-House Campus Concentration

Semester II		Credit Hours
AUT 152	Engine Repair I	5
AUT 159	Auto Electronic & HVAC	5
____	Elective: Open	3
____	Elective: Humanities/Social Science	3
<b>Semester III</b>		
AUT 240	Automatic Transmission	6
AUT 244	Advanced Engine Performance	5
ENG ____	Select <b>one</b> of the following:	3
	ENG 201 Technical Writing	
	ENG 220 Business Communication	
____	Elective: Math/Science	3-4
<b>Semester IV</b>		
AUT 252	Manual Transmission & Driveline	5
AUT 276	Advanced Systems Diagnosis	3
AUT 292	Computerized Chassis Controls	3
____	Elective: Humanities/Social Science	3
____	Elective: Humanities/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>68-70</b>

### Dealer TraX Concentration

Semester II		Credit Hours
AUT 180	Field Experience for (AUT 110,120,150,170)	4
AUT 159	Auto Electronic & HVAC	5
ENG ____	Select <b>one</b> of the following:	3
	ENG 201 Technical Writing	
	ENG 220 Business Communication	
____	Elective: Humanities/Social Science	3
<b>Summer Session</b>		
AUT 181	Field Experience for (AUT 159)	2
AUT 130	Introduction to Engine Repair (Lec.)	1
AUT 131	Engine Repair (Lab)	3
____	Elective: Humanities/Social Science	3
<b>Semester III</b>		
AUT 182	Field Experience for (AUT 130, 131, 241)	4
AUT 241	Automatic/Manual Transmission	5
____	Elective: Open	3
____	Elective: Humanities/Social Science	3
<b>Semester IV</b>		
AUT 184	Field Experience for (AUT 271)	4
AUT 271	Electronic Engine Control	5
____	Elective: Math/Science	3-4
	PHY 121/122 recommended	
<b>Total Credit Hour Requirements</b>		<b>68-69</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Ford ASSET (FOA)

## Program Description

The Automotive Student Service Educational Training (ASSET) major is a state of the art two-year program alternating classroom and laboratory training with paid, on-the-job experience, leading to an Associate Degree in Automotive Technology. ASSET is a joint effort of Ford Motor Company, Ford and Lincoln/Mercury dealers, and Central Maine Community College. Graduates of this program are awarded the Associate in Applied Science degree.

An automotive service technician must have the skills of a mechanic and the knowledge to deal with computer controlled engine systems, computer-managed diagnostics, microelectronics, complex pneumatic systems, composite materials, and hydraulics. In 2003, the Ford ASSET program received continued full Master Certification in all eight specialty areas from the National Institute for Automotive Service Excellence (ASE), 101 Blue Seal Drive, SE, Suite 101, Leesburg, VA 20175 - telephone - (703) 669-6650.

## Preregistration Requirements

Prior to enrolling in FOA 151, students must first obtain a sponsor. Before agreeing to sponsor a student, a repair facility may request a criminal background check to include but not limited to criminal background, drug test and credit history. Furthermore, repair facilities often require that students hold a current and valid driver's license free from "current major" violations, as that term is defined in standard auto insurance policies. Repair facilities also retain the right, in their sole discretion, to accept or deny students based on their findings. Please note that the inability to secure a sponsor could jeopardize an individual's ability to meet all the requirements for this degree.

**In order to be placed with a dealer in the FOA program, students must place into ENG 101/105 and MAT 100 or higher. Students who do not place into ENG 101/105 and MAT 100 or higher will be admitted to the FOA program, but will need to complete remedial coursework before being placed with a sponsor.**

**Note:** NATEF certification requires that students are able to perform all tasks for outcomes 1-4 listed below. Consequently, students who desire NATEF certification will be expected to stand, stretch, reach, twist their body and push, pull, lift and carry heavy objects (up to 70 lbs.) such as truck size tires.

## Program Outcomes

Upon completion the graduate is prepared to:

1. Perform all NATEF (P-1) tasks to diagnose and repair systems associated with automotive chassis components.
2. Perform all NATEF (P-1) tasks to diagnose and repair all assemblies associated with automotive engine and power transmission systems.
3. Perform all NATEF (P-1) tasks to diagnose and repair all components associated with any electrical and electronic control systems.
4. Perform all NATEF (P-1) tasks to diagnose and repair all components associated with any accessory and ergonomic systems.
5. Communicate clearly using written, verbal, and electronic means.
6. Apply safety standards related to the Automotive Industry.
7. Solve mathematical problems related to the Automotive field.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
FOA 100	Dealer Practices	2
FOA 151	Field Experience	5
FOA 152	Auto Electrical Systems	3
MAT ____ *	Select <b>one</b> of the following:	3
	MAT 100 Intermediate Algebra	
	MAT 104 Technical Mathematics	
Semester II		
ENG ____	Select <b>one</b> of the following:	3
	ENG 201 Technical Writing	
	ENG 220 Business Communication	
FOA 190	Brakes, Steering, Suspension and Drivelines	5
____	Elective: Humanities/Social Science	3
FOA 191	Field Experience	5
Summer Session		
FOA 130	Engine Repair/Climate Control	4
FOA 131	Field Experience	2
____	Elective	3
Semester III		
FOA 232	Field Experience	4
FOA 270	Computer Controlled Systems, Engine Performance, Fuels and Emissions	5
____	Elective: Math/Science	3
____	Elective: Humanities/Social Science	3
Semester IV		
FOA 240	Automatic/Manual Transmissions	5
FOA 271	Field Experience	5
____	Elective: Humanities/Social Science	3-4
<b>Total Credit Hour Requirements</b>		<b>69-70</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Building Construction Technology (BCT) In-House Track

## Program Description

The Associate in Applied Science Degree in Building Construction Technology focus is preparing the student for successful employment. No longer are the simple construction techniques of old acceptable in today's energy conscious marketplace. While never losing sight of ever-changing materials, methods, and technology associated with the construction field, this program focuses on fundamental skills applicable to either residential or commercial construction. Through a combination of classroom study, mock-ups, and live projects, students obtain hands-on experience and become broadly familiar with methods, standards, and codes commonly associated with the construction industry. While concentrating on core communication and construction skills, students progress at an individual rate matching individual growth. Fundamental construction skills are assessed periodically through competency testing giving students multiple opportunities to demonstrate comprehension and proficiency. Assigned projects based on student abilities will allow project time to more closely follow job-site practices. Growth and accomplishments will be archived in a working ePortfolio throughout the program, which will serve as the foundation for an eResume illustrating the strengths, commitments, and focus prospective employers are looking for.

The BCT program offers students the opportunity to earn a Certificate or an Associates in Applied Science degree.

## Career Opportunities

Graduates of this program typically accept employment with residential, light commercial, institutional, or heavy construction contractor; building materials suppliers; manufacturers of prefabricated modular units; or cabinet shops. With additional experience, graduates may move into middle-management positions, become self-employed or general contractors. Building inspection, design, and code enforcement are also career possibilities.

## Program Educational Outcomes

Upon completion the graduate is prepared to enter the job market at an entry level position prepared for advancement based on individual proficiency of the following skills:

1. Interpretation of construction documents, print reading, sketches and associated communication skills.
2. Estimate project costs from working drawings and blueprints including MUBEC code requirements.
3. Demonstrate understanding of basic building science.
4. Demonstrate understanding of basic design load path considerations.
5. Use of transits and laser levels applied to construction projects.
6. Meet core competencies including but not limited to: tool safety, construction math, floor/wall/roof layout, fastener/adhesive technology, lumber characteristics and milling.

## Associate in Applied Science Degree Requirements

### Semester I

BCT 101 **	Introduction to Hand and Power Tools Safety	3
BCT 142	Building Concepts I	3
BCT 143	Building Concepts II	3
BCT 126	Construction Site Surveying	2
MAT ____ *	Select <b>one</b> of the following: MAT 100 Intermediate Algebra MA 104 Technical Mathematics	3
ENG ____ *	Select one of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
OHS 111	OSHA 10-Hour Course in Construction	1

### Semester II

BCT 144	Building Concepts III	3
BCT 145	Building Concepts IV	3
BCT 180	Introduction to Building Science	3
____	Elective: Humanities/Social Science	3

### Summer Semester

BCT ____	Select <b>one</b> of the following: BCT 197 Internship BCT 297 Externship BCT 298 Capstone Elective: Choose From: BCA 120, BUS 101, BUS 110, BUS 145, CAD 110, COM 100 or PHI 111	3
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### Semester III

BCT 205	Interior Finish I	5
BCT 152	Construction Document Reading & Cost Estimating	3
____	Writing course (see page 37-38)	3
____	Elective: Humanities/Social Science	3

### Semester IV

BCT 128	Basic Strength of Materials	2
BCT 255	Interior Finish II	5
BCT 251	Construction Business & Site Management	2
____	Elective: Humanities/Social Science	3
____	Elective: Math/Science	3-4

### Total Credit Hour Requirements

**60-62**

\*Course placement determined by assessment test scores and/or prior college coursework

\*\*Students must successfully complete BCT 101 prior to participation in any other BCT course.

# Building Construction Technology (BJT) Jobsite Track

## Program Description

The Associate of Applied Science in Building Construction Technology Jobsite Track degree provides students with a two-year program alternating classroom and laboratory training with paid, on-the-job experience, leading to an Associate Degree in Building Construction Technology. The Jobsite Track degree is a joint effort of residential and commercial construction companies and Central Maine Community College.

The program will prepare students with skills required to meet industry needs by hands-on construction training on the jobsite. This program provides students with the tools necessary to improve their competitive capacity through a comprehensive, hands-on curriculum. It provides an opportunity for high school graduates to build on the technical training received through their technology center programs. Graduates of this program are awarded the Associate in Applied Science degree.

## Preregistration Requirements

Prior to enrolling in the Jobsite Track, students must first obtain a construction employer that is then approved by the department chair. Before agreeing to employ a student, a company may request a criminal background check and/or drug test on that student. Furthermore, an employer often requires that students hold a current and valid driver's license free from "current major" violations, as that term is defined in standard auto insurance policies. Employers also retain the right, in their sole discretion, to accept or deny students based on their findings. Please note that the inability to secure a construction employer could jeopardize an individual's ability to meet all the requirements for this degree. Students must place in ENG 101 or 105 and MAT 100. Students who do not place into these courses, will be admitted into the Jobsite Track while taking remedial courses, but will not be placed with an employer until remedial coursework is completed.

## Program Educational Outcomes

Upon completion the graduate is prepared to enter the job market at an entry level position prepared for advancement based on individual proficiency of the following skills:

1. Interpretation of construction documents, print reading, sketches and associated communication skills.
2. Estimate project costs from working drawings and blueprints including MUBEC code requirements.
3. Demonstrate understanding of basic building science.
4. Demonstrate understanding of basic design load path considerations.
5. Use of transits and laser levels applied to construction projects.
6. Meet core competencies including but not limited to: tool safety, construction math, floor/wall/roof layout, fastener/adhesive technology, lumber characteristics and milling.
7. Demonstrate jobsite experience in both soft and trade skill sets including but not limited to: punctuality, preparedness, following directions and project specific construction trade skills.

### Semester I

BCT 101 **	Introduction to Hand and Power Tool Safety	1
BCT 142	Building Concepts I	3
BCT 143	Building Concepts II	3
BCT 126	Construction Site Surveying	2
MAT ____ *	Select <b>one</b> of the following:	3
	MAT 100 Intermediate Algebra	
	MAT 104 Technical Mathematics	
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
OHS 111	OSHA 10-Hour Course in Construction	1

### Semester II (1st 8 wks)

BCT 144	Building Concepts III	3
____	Elective: Humanities/Social Science	3
____	Elective: Humanities/Social Science	3

### Semester II (2nd 8 wks)

BCT 185	Field Experience I	4
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### Summer Semester (1st 7 wks)

BCT 154	Millwork I	5
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### Summer Semester (2nd 4 wks)

BCT 186	Field Experience II	2
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### Semester III (1st 8 wks)

BCT 285	Field Experience III	4
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### Semester III (2nd 8wks)

BCT 152	Construction Document Reading & Cost Estimating	3
BCT 200	Structural Analysis I	3
____	Writing course (see page 37-38)	3

### Semester IV (1st 8 wks)

BCT 251	Construction Business & Site Management	2
____	Elective: Humanities/Social Science	3
____	Elective: Math/Science	3-4

### Semester IV (2nd 8 wks)

BCT 286	Field Experience IV	4
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### Total Credit Hour Requirements

**61-63**

\*Course placement determined by assessment test scores and/or prior college coursework

\*\*Students must successfully complete BCT 101 prior to participation in any other BCT course.

# Building Construction Technology Certificate (BCT)

<b>Certificate Requirements</b>		
<b>Semester I</b>		<b>Credit Hours</b>
BCT 101	Introduction to Hand and Power Tool Safety	1
BCT 142	Building Concepts I	3
BCT 143	Building Concepts II	3
BCT 126	Construction Site Surveying	2
MAT ____*	Select <b>one</b> of the following: MAT 100 Intermediate Algebra MAT 104 Technical Mathematics	3
OHS 111	OSHA 10-Hour Course in Construction	1
<b>Semester II</b>		
BCT 128	Basic Strength of Materials	2
BCT 144	Building Concepts III	3
BCT 145	Building Concepts IV	3
BCT 180	Introduction to Building Science	3
ENG ____*	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
<b>Total Credit Hour Requirements</b>		<b>27-28</b>

\*Course placement determined by assessment test scores and/or prior college coursework

Students must successfully complete BCT 101 prior to participation in any other BCT course.



# Business Administration and Management (BUS)

ALSO AVAILABLE  
100% ONLINE

## Program Description

The Business Administration and Management program provides students the opportunity to earn a Certificate, an Associate in Applied Science degree or an Associate in Science degree. The program of study includes activities found in a modern business or industrial organization including accounting, marketing, customer relations and strategic planning.

The program is designed to prepare individuals with a wide variety of management and supervisory skills while providing broad exposure to general business practices. Sales personnel, office administrators, managers and professionals require this mix of general knowledge and specific expertise to successfully compete in the world of business. The program is also designed to provide a strong foundation of skills and advanced technical capability while allowing students to keep their current jobs.

In some instances, particularly for students planning to transfer to a 4-year accredited business school, it is in the student's best interest to be in the Business Administration and Management Transfer program rather than the Business program. Students will experience some business courses while also completing required core courses for their baccalaureate degree. An advising worksheet that outlays the General Studies curriculum for a student whose goal is to transfer to an accredited business school is available in the Learning & Advising Center and from the Business Department.

## Career Opportunities

Graduates will be prepared to work in an array of commercial, retail and professional office situations. Examples of these positions include first line supervisors, general managers, food service and lodging managers, professional sales representatives, bookkeeping and accounting clerks and related administrative, industrial and professional positions. Graduates of this program will be prepared for these occupations with skills and knowledge for careers tailored to meet current job requirements and future career growth.

Graduates are also encouraged to continue their education and pursue a Baccalaureate Degree and/or seek paths toward specialization in one of the many functional areas of business (i.e. personnel, training, purchasing, etc.).

## Advising Pathways

There are seven advising pathway options in the Business program that students can select from depending on their primary career goals. Students can also choose to take an assortment of business classes that suit their interest instead of focusing on a specific advising pathway. The Business advising pathways are: Entrepreneurship, Business Ownership, Supervision, Management, Computer Applications, Sports Management, and Parts & Services Management. Below is more information about each pathway:

**Entrepreneurship or Business Ownership:** This pathway provides students with a knowledge base to be successful business owners. The electives are designed to provide broad general knowledge in accounting, finance and management. Suggested

pathway electives: ACC 212, BCA 241, BCA 246, BUS 101, BUS 220, BUS 260.

**Supervision or Management:** Designed for students who aspire to be effective and successful first line supervisors, this pathway prepares students for management and leadership roles in a range of organizational settings. Suggested pathway electives: BCA 152, BCA 241, BUS 115, BUS 150, BUS 220, PSY 120.

**Computer Applications:** This pathway prepares students to apply computer theory to business applications and provides a dual knowledge foundation in technical and business problem-solving skills for today's business technology environments. Additional pathway electives provide a base of customer relations and psychology of the workplace. Suggested pathway electives: BCA 152, BCA 241, BCA 246, BUS 150, BUS 255, PSY 120.

**Sports Management:** This pathway provides students with the necessary tools and knowledge to manage a sports complex or assist in the day-to-day management of high school, college, semi-professional, or professional sports teams and organizations. Suggested pathway electives: BCA 241, BUS 140, BUS 145, BUS 150, BUS 255, PSY 120.

**Parts & Services Management:** This pathway prepares students for positions as shop foremen, service advisor, service manager, parts and service manager (service director) or in automobile sales. Other opportunities include parts counter salesperson, parts manager, manufacturer representative and warranty clerk. Job experience within the parts and service field could eventually lead to after-market parts assistant or store manager and automobile dealership general manager/owner. Suggested pathway electives: PSM 100, PSM 105, PSM 101, PSM 205.

**Management Information Systems:** This pathway prepares students for entry level technology-based positions. It is designed to provide students a solid foundation in the application and use of information technology. Suggested pathway electives: BCA 241, BCA 246, CPT 130, CPT 166, CPT 235, CPT 252.

## Program Educational Outcomes

Upon completion of the AAS Degree the graduate is prepared to:

1. Utilize effective management and supervisory skills needed for working in the business environment.
2. Organize teams, groups and individuals in business situations.
3. Utilize technology to analyze business problems and construct appropriate solutions.
4. Diagnose marketing and management related issues and plan future actions.
5. Incorporate appropriate business terminology into effective communication (reading, writing and graphics).

# Business Administration and Management (BUS)

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
BCA 120	Introduction to Computer Applications	3
BUS 100	Understanding Business	3
BUS 110	Principles of Supervision	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 101*	Business Mathematics	3
<b>Semester II</b>		
BUS ____	Select <b>one</b> of the following:	3
	BUS 120 Employment Law	
	BUS 124 Legal Environment of Business	
BUS 215	Principles of Marketing	3
COM ____	Select <b>one</b> of the following:	3
	COM 100 Public Speaking	
	COM 101 Interpersonal Communications	
ENG 220	Business Communications	3
____	Advising Pathway course	3
<b>Semester III</b>		
ACC 210	Principles of Accounting I	3
MAT ____*	Select <b>one</b> of the following:	3
	MAT 122 College Algebra	
	MAT 125 Finite Math	
	MAT 135 Statistics	
____	Advising Pathway course	3
____	Advising Pathway course	3
____	Advising Pathway course	3
<b>Semester IV</b>		
BUS ____	Select <b>one</b> of the following:	3
	BUS 297 Externship	
	BUS 298 Capstone	
ECO 201	Introduction to Macroeconomics	3
____	Elective: Social Science	3
____	Advising Pathway course	3
____	Advising Pathway course	3
<b>Total Credit Hour Requirements</b>		<b>60-61</b>

Students must earn a grade of C (not C-) or higher in ENG 101 College Writing or ENG 105 College Writing Seminar and BUS 220 Business Communication in order to meet Certificate or Associate Degree requirements of this program.

### Online Program Priority Enrollment Deadline

The Business Administration & Management program is available online. The priority enrollment deadline for the online program is May 15, which means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit must be received, and online orientation completed.

\*Course placement determined by assessment test scores and/or prior college coursework

# Business Administration and Management Certificate (BUS)

<b><i>Certificate Requirements</i></b>		
<b>Semester I</b>		<b>Credit Hours</b>
BCA 120	Introduction to Computer Applications	3
BUS 100	Understanding Business	3
BUS 110	Principles of Supervision	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
BUS ____	Select <b>one</b> of the following:	3
	BUS 120 Employment Law	
	BUS 124 Legal Environment of Business	
<b>Semester II</b>		
BUS 115	Leadership and Interpersonal Relations	3
BUS 150	Effective Customer Relations	3
BUS 180	Managing Office Procedures	3
MAT 101*	Business Mathematics	3
<b>Total Credit Hour Requirements</b>		<b>27-28</b>

\*Course placement determined by assessment test scores and/or prior college coursework

Students must earn a grade of C (not C-) or higher in ENG 101 College Writing or ENG 105 College Writing Seminar in order to meet Certificate or Associate Degree requirements of this program.

# Business Transfer (BUS)

## Program Description

The Associate in Science Degree in Business Administration and Management Transfer is designed to better meet the needs of students who anticipate transferring to a four-year institution to study business. The A.S. degree is a cost-effective and flexible educational goal that can enhance student career options, while promoting student degree completion and success. Depending on the student's choice of electives, the A.S. degree offers sufficient options for admission into a bachelor degree program in business-related areas such as accounting, business administration, finance, human resources, marketing, public administration, international business and management.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Utilize effective management and supervisory skills needed for working in the business environment.
2. Organize teams, groups and individuals in business situations.
3. Utilize technology to analyze business problems and construct appropriate solutions.
4. Diagnose marketing and management related issues and plan future actions.
5. Incorporate appropriate business terminology into effective communication (reading, writing and graphics).

<b>Associate in Science Degree Requirements</b>		
<b>Semester I</b>		<b>Credit Hours</b>
BCA ____	Elective: BCA 120 or higher**	3
BUS 100	Understanding Business	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
ACC 210	Principles of Accounting I	3
____	Elective: Diversity/Ethical Reasoning	3
<b>Semester II</b>		
ACC 212	Principles of Accounting II	3
COM 100	Public Speaking	3
____	Science with Lab: 101 or higher (BIO, CHY, PHY)	4
MAT 135*	Statistics	3
ENG ____	Select <b>one</b> of the following:	3
	ENG 220 Business Communication	
	ENG 201 Technical Writing	
<b>Semester III</b>		
BUS 124	Legal Environment of Business	3
ECO 201	Macroeconomics	3
MAT 122*	College Algebra	3
____	Elective: Humanities	3
____	Elective: General Education	3
<b>Semester IV</b>		
ECO 202	Microeconomics	3
BUS 215	Principles of Marketing	3
____	Select <b>one</b> of the following:	3
	BCA 246 Database Management	
	Elective: General Education (advisor approved)	
____	Elective: General Education, ACC or BUS	3
____	Elective: General Education, ACC or BUS	3
<b>Total Credit Hour Requirements</b>		<b>61-62</b>

\* Course placement determined by placement test scores and/or prior college work.

Students should consult four-year colleges for the transferability of courses. Those planning to transfer to colleges accredited by the American Assembly of Collegiate Schools of Business (A.S.C.S.B.) should take general education electives in place of the BCA elective and/or BUS 215.

# Career Studies (CAS)

## Program Description

The Associate in Applied Science Degree in Career Studies is designed to provide a flexible curriculum for students who have unique career goals that cannot be met by other programs of the college. Appropriate students will have significant career experience which exhibits both breadth and depth. This experience may be documented in either standalone or combination of advisor approved "prior learning" documentation which may potentially award students up to 18 credits upon satisfactory assessment. The remaining curriculum will be determined by the student and his/her advisor. All courses selected should be relevant to the student's career focus which will be determined at the time of enrollment.

## Career Opportunities

Employment and occupational outlook studies reflect the value of postsecondary education to a person's career opportunities and earning potential. Many employers look upon the associate degree as a minimum requirement for skilled occupations. In addition, the associate degree can serve as a platform of accomplishment for pursuing additional educational and career goals.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Communicate clearly using written and verbal means.
2. Use interpersonal and analytical skills to solve problems that could affect the outcomes of specific projects in the work place.
3. Continue to gain knowledge/skills through formal or informal means.
4. Realistically analyze career opportunities vs. individual strengths and make sound career path decisions.

## Associate in Applied Science Degree Requirements

Concentration		Credit Hours
CAS 199	Prior Learning Assessment	18 max
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
ENG ____	Select <b>one</b> of the following:	3
	ENG 201 Technical Writing	
	ENG 220 Business Communication	
____ ____	Elective: Humanities/Social Science	9
____ ____	Electives: Mathematics (100 or higher) and/ or Science	6-7
<b>Related Courses</b>		
____ ____	Electives	39
Selected from combination of catalog courses and prior learning experience provided that prerequisites are met and Advisor approval is obtained.		
<b>Total Credit Hour Requirements</b>		<b>60-61</b>

\*Course placement determined by assessment test scores and/or prior college coursework



# Network Security/Computer Forensics (CNS)

## Program Description

The Associate in Applied Science Degree in Network Security/Computer Forensics is designed to prepare students to address the ever-increasing needs of businesses in the area of technology security. Students in this program can choose to transfer to a baccalaureate degree program or go directly into the workforce. The skills learned in the core curriculum will give students a strong background in computer technology and networks; while the degree concentration will focus on securing, testing, and analyzing information as it is stored, manipulated, and communicated across networks.

Students will work with state-of-the-art networks and hardware throughout the program. The curriculum is designed to prepare students for a multitude of industry standard certifications, for which many of the exams can be taken on campus.

## Career Opportunities

This program will prepare highly-skilled graduates who are ready to work in technology departments in various capacities. These would include PC repair technicians, network security officers and analysts, network administrators, forensic analysts, and computer managers.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Demonstrate an understanding of computing technologies and terminology for industry employment.
2. Accurate and appropriate use of industry terms and representation of materials based on intended audiences.
3. Utilize ethical means to determine the effectiveness of a network's security posture while recommending appropriate remediation techniques.
4. Analyze, retrieve and report evidentiary data utilizing forensic tools.
5. Continue education through conferences, industry certifications, courses, and/or enrolling in other degree programs.
6. Develop an area of expertise while analyzing career opportunities vs. individual strengths.

**Students must earn a grade of C or better in ENG 101 or ENG 105 MAT 102, MAT 122, MAT 125 or MAT 135 and COM 100, COM 101 or COM 121 and all core courses. High school prerequisites for admission into this program: Algebra I**

## Non-Academic Requirements

All students enrolled in the CNS A.A.S. degree will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from being accepted into the program.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
CPT 130	Introduction to Visual Basic	3
CPT 147	Introduction to PC Repair/OS	3
CPT 201	Introduction to Linux	3
MAT ____*	Select <b>one</b> of the following:	3
	MAT 102 Number and Logics	3
	MAT 135 Statistics	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
Semester II		
CPT 235	Introduction to Networking	3
CPT 227	Introduction to Virtual Machines	3
ENG 201	Technical Writing	3
COM ____	Select <b>one</b> of the following:	3
	COM 101 Interpersonal Communications	
	COM 121 Group Process	
	COM 100 Public Speaking	
____	Elective: Social Science	3
Semester III		
____	Elective: Open (CPT recommended)	3
CPT 266	Server Administration	3
MAT ____*	Select <b>one</b> of the following:	3
	MAT 122 College Algebra	
	MAT 125 Finite Mathematics	
CPT 261	Computer Forensics I	3
CPT 271	Introduction to Network Security	3
Semester IV		
CPT 239	Advanced Networking Concepts	3
CPT 275	Computer Forensics II	3
CPT 281	Penetration Testing	3
CPT 298	Capstone	3
PHI ____	Select <b>one</b> of the following:	3
	PHI 101 Critical Thinking	
	PHI 111 Introduction to Ethics	
<b>Total Credit Hour Requirements</b>		<b>60-61</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Computer Technology A.A.S. (CPT)

## Program Description

The Computer Technology program offers two degree options: Associate in Science or the Associate in Applied Science. The Associate in Science degree is designed to articulate with the final two years of undergraduate study at institutions offering the baccalaureate degree while the Associate in Applied Science degree focuses on preparation for entry into the workforce. Both programs are designed to provide individuals with knowledge of computing in the PC environment while developing specific diagnostic, repair, installation, network and programming skills.

This program prepares students for industry certifications such as A+, NET+, MCP, and MCSE.

## Career Opportunities

The program is designed to develop work skills for the computer technology and related computer fields. Possible jobs include: PC Computer Repair Technicians, PC Software Resource Personnel, Network Administrator, PC Computer Trainers, and PC/Network Sales Personnel. Students will also be prepared for industry certifications such as A+, NET+.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Demonstrate an understanding of computing technologies and terminology for industry employment.
2. Accurate and appropriate use of industry terms and representation of materials based on intended audiences.
3. Practice good work habits and attitudes including: responsibility, cooperation, teamwork and ethical behavior.
4. Analyze problems and take corrective action to maintain information technology systems.
5. Continue education through conferences, industry certifications, courses, and/or enrolling in other degree programs.
6. Develop an area of expertise while analyzing career opportunities vs. individual strengths.

**Students must earn a grade of C or better in ENG 101 or ENG 105 MAT 102, MAT 122, MAT 125 or MAT 135 and COM 100, COM 101 or COM 121 and all core courses. High school prerequisites for admission into this program: Algebra I**

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
BCA 152	Integrated Software Applications	3
COM ____	Select <b>one</b> of the following:	3
	COM 101 Interpersonal Communications	
	COM 100 Public Speaking	
	COM 121 Group Process	
CPT 147	Introduction to PC Repair/OS	3
CPT 252	Web Development	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
Semester II		
CPT 130	Introduction to Visual BASIC	3
CPT 201	Linux	3
CPT 235	Introduction to Networking	3
MAT ____*	Select <b>one</b> of the following:	3
	MAT 102 Numbers and Logic	
	MAT 135 Statistics	
____	Elective: Humanities/Social Science	3
Semester III		
CPT 266	Server Administration	3
ENG 201	Technical Writing	3
MAT ____*	Select <b>one</b> of the following:	3
	MAT 122 College Algebra	
	MAT 125 Finite Mathematics	
____	Elective: CPT	3
____	Elective: CPT	3
Semester IV		
CPT 272	MS Exchange/IIS	3
CPT 298	Capstone	3
____	Elective: CPT	3
____	Elective: Open (CPT recommended)	3
____	Elective: Humanities/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>60-61</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Computer Technology A.S. (CPT)

## Program Educational Outcomes

Upon completion the graduate of either the AAS or the AS degree is prepared to:

1. Demonstrate an understanding of computing technologies and terminology for industry employment.
2. Accurate and appropriate use of industry terms and representation of materials based on intended audiences.
3. Practice good work habits and attitudes including: responsibility, cooperation, teamwork and ethical behavior.
4. Analyze problems and take corrective action to maintain information technology systems.
5. Continue their education through conferences, industry certifications, courses, and/or enrolling in a baccalaureate degree program.
6. Develop an area of expertise while analyzing career opportunities vs. individual strengths.

**Students must earn a grade of C or better in ENG 101 or ENG 105 MAT 102, MAT 122, MAT 125 or MAT 135 and COM 100, COM 101 or COM 121 and all core courses. High school prerequisites for admission into this program: Algebra I**

\*Course placement determined by assessment test scores and/or prior college coursework

## Associate in Science Degree Requirements

		Credit Hours
<b>Semester I</b>		
BCA 152	Integrated Software Applications	3
CPT 147	Introduction to PC Repair/OS	3
ENG ____*	Select <b>one</b> of the following: ENG 101 College Writing* ENG 105 College Writing Seminar	3 (4)
MAT ____*	Select <b>one</b> of the following: MAT 102 Numbers and Logic MAT 122 College Algebra MAT 125 Finite Mathematics MAT 135 Statistics	3
CPT 201	Linux	3
<b>Semester II</b>		
CPT ____	Select <b>one</b> of the following: CPT 127 Introduction to Python CPT 130 Introduction to Visual Basic CPT 245 Introduction to Java CPT 250 Programming in C	3
CPT 235	Introduction to Networking	3
CHY/PHY	Science with lab	4
ENG 201	Technical Writing	3
____	Elective: CPT	3
<b>Semester III</b>		
COM ____	Select <b>one</b> of the following: COM 100 Public Speaking COM 101 Interpersonal Communication COM 121 Group Process	3
CPT 266	Server Administration	3
CPT 271	Introduction to Network Security	3
INS 101	Technology and Society	3
MAT ____*	Select <b>one</b> of the following: MAT 102 Numbers and Logic MAT 122 College Algebra MAT 125 Finite Mathematics MAT 135 Statistics	3
<b>Semester IV</b>		
____	Select <b>one</b> of the following: BCA 246 Database Management CPT 166 Fundamentals of Structured Query Language	3
____	Elective: Social Science (advisor approved)	3
____	Elective: General Education (advisor approved)	3
PHI 101	Critical Thinking	3
CPT 298	Capstone	3
<b>Total Credit Hour Requirements</b>		<b>61-62</b>

# Computer Technology Network Security Advanced Certificate

## **Program Description**

The Advanced Certificate in Network Security prepares students to manage information technology systems with an emphasis on data loss prevention concepts, computer forensics, network defense, encryption and computer investigation.

## **Career Opportunities**

This Advanced Certificate will afford students advanced skills to attract employers in the areas listed above. The students will have a multitude of job options in the technology field including Network Administration, Network Security, Server Administration, Penetration Testing, and Computer Forensics.

## **Program Educational Outcomes**

Upon completion the graduate will be able to:

1. Address fundamental loss prevention.
2. Prepare and implement a security program.
3. Identify methods used to protect and access online information resources.

## **Non-Academic Requirements**

All students taking the advanced certificate will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from being accepted into the program.

## **Prerequisites**

Students must have earned an A.A.S. degree in Network Security/Computer Forensics (CNS).

## **Advanced Certificate Requirements**

	<b>Credit Hours</b>
CPT 283 OS Hardening	3
CPT 286 Security Analysis	3
CPT 287 Database Security	3
CPT 288 Incident Handling & Response	3
CPT 289 Mobile Device Handling	3
CPT 290 Introduction to Cyber Security	3
<b>Total Credit</b>	<b>18</b>

## Program Description

The Associate in Applied Science Degree in Criminal Justice is designed with a three-fold purpose: (1) to prepare graduates for entry level positions relevant to law enforcement, (2) to prepare students for upper division coursework at universities and colleges where a bachelor's degree is desired, and (3) to respond to the growing demand of law enforcement employees seeking to upgrade their skills and knowledge base for career advancement with a college degree.

## Career Opportunities

Graduates of the program will be qualified for positions such as police officers, detectives and criminal investigators, correctional officers, forensic science technicians and protective service workers including TSA agents, security systems personnel, homeland security officers, entry level administrative positions, transportation security officers, reserve officer, safety officers, intake worker positions, and jail transport officers.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Demonstrate an understanding of the sociological and psychological theories of crime causation and evaluation of human behavior.
2. Apply critical thinking and problem solving techniques to the criminal justice and computer forensics environment.
3. Demonstrate the ability to apply principles of statutory law and due process within the criminal justice system.
4. Demonstrate interpersonal, written, and presentation skills required for successful employment in a criminal justice field.
5. Consistently exhibit ethical behavior and respect for a diverse community, applying services equitably to all people.

## Online Program Priority Enrollment Deadline

The Criminal Justice program is available online. The priority enrollment deadline for the online program is May 15, which means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit must be received, and online orientation completed.

## Non-Academic Requirements

All students taking Criminal Justice courses will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from being accepted into the program. The applicant would be denied acceptance if they have a "disqualifying conviction" or committed "disqualifying conduct" as defined by the Maine Criminal Justice Academy. Such conviction / conduct prohibits a person from being certified / licensed as a police officer in the State of Maine.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
CRJ 101	Introduction to Criminal Justice	3
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
COM ____	Select <b>one</b> of the following:	3
	COM 101 Interpersonal Communication	
	COM 100 Public Speaking	
MAT ____ *	Elective: 100 or higher	3
CRJ 122	Criminal Law and Report Writing I	3
LER 100	First Year Seminar CRJ	1
<b>Semester II</b>		
CRJ ____	Advising Pathway course	3
CRJ 212	Criminal Investigation and Report Writing II	3
PHI ____	Any PHI course	3
BIO 101	General Biology Lecture	3
BIO 102	General Biology Lab	1
____	Elective: ANT, ECO, GEY, HIS, POS, PSY, SOC or SCC	3
<b>Semester III</b>		
CRJ ____	Advising Pathway course	3
CRJ ____	Advising Pathway course	3
CRJ 245	Criminology	3
CRJ ____	Advising Pathway course	3
____	PSY or SOC course	3
<b>Semester IV</b>		
CRJ 201	Civil Liberties	3
CRJ ____	Advising Pathway course	3
CRJ ____	Advising Pathway course	3
CRJ ____	Advising Pathway course	3
CRJ 297	Externship or Advising Pathway course	3
<b>Total Credit Hour Requirements</b>		<b>62-63</b>

\*Course placement determined by assessment test scores and/or prior college coursework



# Criminal Justice Computer Forensics (CJF)

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
CRJ 101	Introduction to Criminal Justice	3
COM 101	Interpersonal Communication	3
MAT ____ *	Select <b>one</b> of the following:	3
	MAT 100 Intermediate Algebra	
	MAT 102 Numbers and Logic	
	MAT 135** Statistics	
CPT 147	Intro to PC Repair/Operating Systems	3
LER 100	First Year Seminar CRJ	1
<b>Semester II</b>		
BIO ____	Select <b>one</b> of the following:	3
	BIO 101 General Biology Lecture	
	BIO 115 Anatomy and Physiology I Lecture	
BIO ____	Select <b>one</b> of the following:	1
BIO 102	BIO 102 General Biology Lab	
	BIO 116 Anatomy and Physiology I Lab	
PSY 101	Introduction to Psychology	3
CRJ ____	Advising Pathway course	3
CPT 235	Introduction to Networking	3
CPT 261	Introduction to Computer Forensics	3
<b>Semester III</b>		
CRJ 122	Criminal Law	3
PHI ____	any PHI course	3
CRJ 212	Criminal Investigation and Report Writing	3
CRJ ____	Advising Pathway course	3
CPT/CRJ	Elective: Restrictive	3
<b>Semester IV</b>		
CRJ 201	Civil Liberties	3
CRJ ____	Advising Pathway course	3
CRJ ____	Advising Pathway course	3
CPT ____	Select <b>one</b> of the following:	3
	CPT 271 Network Security	3
	CPT 239 Advanced Networking	3
CPT/CRJ	Elective: Restricted	3
____	Elective: Humanities/Science	3
<b>Total Credit Hour Requirements</b>		<b>65</b>

### Computer Technology Electives

CPT 225	Advanced PC Repair
CPT 239	Advanced Networking Concepts
CPT 266	Server Administration
CPT 271	Introduction to Network Security

\*Course placement determined by assessment test scores and/or prior college coursework

\*\*MAT 135 is a preferred transfer requirement.

# Forensic Science (FRN)

## Program Description

The purpose and objectives of the Forensic Science, A.A.S. program are to prepare students for employment in the area of crime scene investigation and/or to upgrade to a position within the industry. At the completion of the A.A.S. program students will be able to photograph crime scene evidence, collect, examine, compare and identify fingerprints, collect blood, trace and fiber evidence, cast shoeprint impressions and assist in identifying deceased individuals. The program will prepare students for career paths in criminal justice including detective, deputy sheriff, criminal investigator, crime scene photographer or crime scene technician.

## Program Educational Outcomes

Upon completion of the Associate in Applied Science in Forensic Science the graduate will be able to:

1. Explain the fundamental concepts of chemistry and biology as these relate to forensic investigations.
2. Demonstrate competency in the collection, processing, analyses, and evaluation of evidence.
3. Demonstrate competency in the principles of crime scene investigation, including the recognition, collection, identification, preservation, and documentation of physical evidence.
4. Identify the role of forensic investigator and physical evidence within the criminal justice system.
5. Demonstrate the ability to document and orally describe crime scenes, physical evidence, and scientific processes.
6. Identify and examine current and emerging concepts and practices within the forensic investigation field.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
CRJ 101	Introduction to Criminal Justice	3
CRJ 122	Criminal Law	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	3
	ENG 105 College Writing Workshop	(4)
MAT 122	College Algebra	3
CHY 121	General Chemistry I Lecture	3
CHY 122	General Chemistry I Lab	1
LER 100	First Year Seminar CRJ	1
<b>Semester II</b>		
CRJ 212	Criminal Investigation and Report Writing	3
CRJ 250	Criminalistics	3
CHY 123	General Chemistry II Lecture	3
CHY 124	General Chemistry II Lab	1
PSY 101	Introduction to Psychology	3
COM 100	Public Speaking	3
<b>Semester III</b>		
CRJ 231	Death Investigations	3
CRJ 201	Civil Liberties	3
BIO 131	Biology I Lecture	3
BIO 132	Biology I Lab	1
MAT 135*	Statistics	3
PHI ____	any PHI course	3
<b>Semester IV</b>		
CRJ 275	Crime Scene Management	3
CRJ 227	Crime Scene Photography	3
BIO 133	Biology II Lecture	3
BIO 134	Biology II Lab	1
____	Elective: ANT, ECO, GEY, HIS, POS, PSY, SOC or SCC	3
<b>Total Credit Hour Requirements</b>		<b>62-63</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Criminal Justice Forensic Investigation Certificate (CFI)

## Program Description

The purpose of the Forensic Investigation Certificate is to provide an opportunity to receive formal training in the area of forensic investigation. It is designed for those individuals interested in moving into the ranks of detective within the police force; as a forensic technician representing law offices; or as a field officer dedicated to preserving with utmost care a crime scene for future analysis. Among the state agencies that may be interested in employees with this training include the Maine Warden Service, Fire Marshall's Office, Department of Corrections, Probation and Parole, state and local Police Departments and Sheriff's Departments.

This is a latticed credential. All courses may be transferred into the AAS Criminal Justice program at Central Maine Community College. Those students in the AAS program who selected the Justice Studies Advising Pathway may choose to complete this certificate and graduate with a second credential. All courses are currently in the College's Academic Inventory and are offered on a regular basis.

## Non-Academic Requirements

All students taking Criminal Justice courses will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from being accepted into the program. The applicant would be denied acceptance if they have a "disqualifying conviction" or committed "disqualifying conduct" as defined by the Maine Criminal Justice Academy. Such conviction / conduct prohibits a person from being certified / licensed as a police officer in the State of Maine.

## Certificate Requirements

Semester I		Credit Hours
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 100*	Intermediate Algebra	3
CRJ 101**	Introduction to Criminal Justice	3
CRJ 122**	Criminal Law	3
BIO 101	Introduction to Biology Lecture	3
BIO 102	Introduction to Biology Lab	1
Semester II		
BIO 105	Essentials of Anatomy and Physiology	3
CRJ 227	Crime Scene Photography	3
CRJ 231	Death Investigations	3
CRJ 250	Criminalistics	3
CRJ 275	Crime Scene Management	3
<b>Total Credit Hour Requirements</b>		<b>31-32</b>

\*Course placement determined by assessment test scores and/or prior college coursework

\*\* Waived for students who can provide proof of completion of the 18-week Basic Law Enforcement Training Program through the Maine Criminal Justice Academy.

# Criminal Justice Police Operations Advanced Certificate

## **Program Description**

The Police Operations Advanced Certificate is intended to provide upper-level law enforcement skills and preparatory training for students entering the field of law enforcement. Students will enhance their skills and understanding of police practice, building upon the foundation set forth in a previously completed degree in Criminal Justice or related field.

## **Program Educational Outcomes**

Upon completion the graduate will be able to:

1. Demonstrate acceptable tolerance of stressful situations and apply stress reduction techniques.
2. Demonstrate working knowledge of Maine law enforcement agencies and related organizations.
3. Exhibit knowledge of police operations and procedures.
4. Demonstrate effective defensive tactics and de-escalation techniques.
5. Demonstrate knowledge of criminal court proceedings and relevant case law.

**Admission Criteria:** The Advanced Certificate in Police Operations is a selective admission program. Admission prerequisites are: an earned (or expected) associate degree or higher with a cumulative GPA of 2.5 on a 4.0 scale in criminal justice or related field as determined by the Department Chair; a criminal background check, physical screening, and oral board interview with departmental faculty. Screenings and interviews are based on those required to meet the minimum standards of entrance into the MCJA. Completed applications, including fees and transcripts, will be accepted until April 1st each year.

## **Non-Academic Requirements**

All students taking criminal justice courses will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from being accepted into the program. The applicant would be denied acceptance if they have a "disqualifying conviction" or committed "disqualifying conduct" as defined by the Maine Criminal Justice Academy. Such conviction or conduct prohibits a person from being certified or licensed as a police officer in the State of Maine.

## **Advanced Certificate Requirements**

<b>Semester I</b>		<b>Credit Hours</b>
CRJ 291	Fitness Training for Law Enforcement	6
CRJ 292	Advanced Police Operations	6
<b>Semester II</b>		
CRJ 293	Defensive Tactics	6
CRJ 294	Field Practical	6
CRJ 280	Effective De-escalation	6
<b>Total Credit Hour Requirements</b>		<b>30</b>

# Culinary Arts (CUA)

## Program Description

The purpose of the Associate in Applied Science degree A.A.S. degree in Culinary Arts is to prepare students for careers in culinary arts, foodservice management, catering, institutional food service, and as chefs. Course work covers a broad spectrum: the preparation of basic and specialized foods, baking and pastry arts, nutrition, sanitation, management techniques and functions, cost control, purchasing, and culinary fundamentals.

Students will learn the art of classical French techniques mixed with modern trends. Emphasis is placed on culinary skills as well as soft skills such as professionalism, how to survive in the industry, teamwork, communication and critical thinking skills. Students work in a kitchen laboratory and dining room setting through the course of study.

## Program Educational Outcomes

Upon completion of the Associate in Applied Science in Culinary Arts the graduate will be able to:

1. Demonstrate the importance of the proper use and handling of kitchen hand tools and equipment used in commercial food establishments.
2. Perform mathematical functions related to food service operations.
3. Demonstrate a general understanding of concepts covered through research, writing and oral presentation.
4. Apply knowledge of laws and regulations relating to safety and sanitation in the kitchen.
5. Discuss and employ the principles of menu planning and layout.
6. Research and prepare dishes and menus for a variety of modern issues and concerns including specific health and dietary needs.
7. Demonstrate the fundamentals of baking science and preparation.
8. Discuss and demonstrate the overall concepts of purchasing and receiving in the food service industry.
9. Research, design and prepare dishes and menus using classical cooking techniques used in a professional kitchen.

Students must earn a grade of C (not C-) or higher in ENG 101 College Writing or ENG 105 College Writing Seminar in order to meet the Degree requirements of this program.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
CUA 100	Introduction to Culinary Arts	2
CUA 105	Baking Fundamentals	2
CUA 110	Techniques of Cooking	2
CUA 115	Baking Principles and Presentation	2
CUA 121	Food Preparation	3
ENG ____ *	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
COM ____	Select <b>one</b> of the following: COM 100 Public Speaking COM 101 Interpersonal Communication	3
Semester II		
CUA 150	Introduction to a La Carte	2
CUA 152	Specialty Foods	2
CUA 154	Introduction to Cakes & Recipe Alterations	2
CUA 156	Pastries and Contemporary Desserts	2
CUA 171	Nutrition and Food Quality	3
MAT ____ *	Select <b>one</b> of the following: MAT 100 Intermediate Algebra MAT 101 Business Math MAT 122 College Algebra MAT 125 Finite Math MAT 135 Statistics	3
____	Elective: Humanities/Social Science	3
Semester III		
CUA 210	Butchery	2
CUA 212	International Cuisine	2
CUA 214	Petit Fours and Artisan Breads	2
CUA 216	Food and Beverage Purchasing	3
____	Elective Math/Science (MAT 100, 101, 122, 125 or 135)	3-4
____	Writing course (see page 37-38)	3
Semester IV		
CUA 250	Modern Cooking	2
CUA 252	Advanced Cakes	2
CUA 254	Advanced La Carte and Service	2
CUA 256	Chocolates Confections	2
CUA 299	Externship	4
____	Elective: Humanities/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>64-66</b>

\*Course placement determined by assessment test scores and/or prior college course work.



# Culinary Arts Certificate (CUA)

## Program Description

The Certificate in Culinary Arts prepares students for employment in a variety of commercial cooking enterprises. The principle focus will be classical French cooking techniques, menu planning and pricing, and how to cook for the customer's diet and allergens. Basic and artisan breads, pies, cake baking and decorating, mousses and plated desserts will be covered. There will be major emphases placed on knowing the equipment used, weights and measures and how to convert them, being able to read a recipe, sanitation, and kitchen safety. Students will be required to participate in several functions for community and college organizations, as well as the fall and spring Open Houses.

Students who graduate with the Certificate have the ability to transfer all their earned credits to the Restaurant Management Associate in Applied Science Degree and the Culinary Arts Associate in Applied Science Degree. **In order to transfer, students must have C (not C-) or better in ENG 101 College Writing or ENG 105 College Writing Seminar.** Within the Food Prep and Sanitation class, students will have the opportunity to take the National Restaurant Association Educational Foundation's exam for ServSafe Certification. Successfully passing this exam will complete the State of Maine's requirement for being a Certified Food Protection Manager (CFPM).

## Career Opportunities

Graduates can look forward to being employed as cooks, line cooks, prep cooks, assistant bakers and a Sous chef in restaurants, schools, hospitals and nursing homes.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Demonstrate proper uses of hand tools and large kitchen equipment and kitchen safety.
2. Practice the appropriate methods of keeping a kitchen clean and sanitary while providing an environment safe for food.
3. Demonstrate best practices from planning menu to execution to clean up.
4. Explain and present a finished product and display or explain correct information behind a dish.
5. Describe the possible opportunities for professional development and advancement through specific organizations.
6. Demonstrate a general understanding of concepts covered through research, writing and oral presentation.
7. Discuss the proper channels of purchasing and what makes for a reputable supplier and when it is ok to refuse a shipment.
8. Discuss nutritional values associated with menu development to satisfy customer needs or preference.

## Certificate Requirements

Semester I		Credit Hours
CUA 100	Introduction to Culinary Arts	2
CUA 105	Fundamentals of Baking	2
CUA 110	Techniques of Cooking	2
CUA 115	Baking Principles and Preparation	2
CUA 121	Food Preparation and Sanitation	3
COM ____	Select <b>one</b> of the following: COM 100 Public Speaking COM 101 Interpersonal Communication	3
ENG ____ *	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
<b>Semester II</b>		
CUA 150	Introduction to a La Carte	2
CUA 154	Introduction to Cakes & Recipe Alternations	2
CUA 152	Specialty Foods	2
CUA 156	Pastries and Contemporary Desserts	2
CUA 171	Nutrition and Food Quality	3
MAT ____ *	Elective: Select <b>one</b> of the following: MAT 100 Intermediate Algebra MAT 101 Business Math MAT 122 College Algebra MAT 125 Finite Mathematics MAT 135 Statistics	3
____	Elective: Humanities/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>34-35</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Culinary Arts Restaurant Management (REM)

## Program Description

The Associate in Applied Science Degree in Restaurant Management is for those who have an interest in pursuing a career in the restaurant management industry. Graduates will be prepared for managerial, supervisory or ownership positions which require skills in culinary arts and business practices. This program focuses on food service and lodging management. Full time students should be able to complete the program in four semesters.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Research, design, and prepare dishes and menus using cooking and baking techniques used in a professional kitchen.
2. Apply knowledge of safety and sanitation laws and regulations.
3. Evaluate operational procedures of a small to medium size restaurant.
4. Understand the legal environment and regulations of the food service industry.
5. Analyze the financial performance of a small to medium sized restaurant.
6. Research and prepare dishes and menus for specific dietary needs and concerns.

Students must earn a grade of C (not C-) or higher in ENG 101 College Writing or ENG 105 College Writing Seminar in order to meet the Degree requirements of this program.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
CUA 100	Introduction to Culinary Arts	2
CUA 110	Techniques of Cooking	2
CUA 105	Fundamentals of Baking	2
CUA 115	Baking Principles and Presentation	2
CUA 121	Food Preparation	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
____	Elective: Humanities/Social Science	3
Semester II		
CUA 150	Introduction to a La Carte	2
CUA 152	Specialty Foods	2
CUA 171	Nutrition and Food Quality	3
MAT 101*	Business Mathematics	3
CUA 154	Introduction to Cakes & Recipe Alternations	2
CUA 156	Pastries and Contemporary Desserts	2
Semester III		
ACC 208	Accounting Concepts	3
BCA 120	Introduction to Computer Applications	3
BUS 110	Principles of Supervision	3
COM ____	Select <b>one</b> of the following:	3
	COM 100 Public Speaking	
	COM 101 Interpersonal Communication	
MAT 100*	Intermediate Algebra or higher	3
Semester IV		
BUS 150	Effective Customer Relations	3
BUS 270	Hospitality Management	3
ENG 220	Business Communication**	3
____	Elective: Humanities/Social Science	3
CUA 297	Internship	3
<b>Total Credit Hour Requirements</b>		<b>61-62</b>

\*Course placement determined by assessment test scores and/or prior college course work.

# Early Childhood Education (ECE)

## Program Description

The Associate in Applied Science Degree in Early Childhood Education program prepares individuals to be skilled professionals qualified to work in a wide variety of early childhood settings including (but not limited to): child care centers, Head Start, family child care, nursery schools, and programs for children with special needs. The program's curriculum is based upon standards set by the National Association for the Education of Young Children (NAEYC) and it promotes all facets of current best practices in the field.

ECE courses combine the understanding and application of theory to practical experiences working directly with young children, ages newborn through pre-school.

Successful completion of the ECE program requires students to complete field work in licensed and approved facilities. The Department of Health and Human Services, Division of Child Care Licensing, has specific requirements for all paid and unpaid staff (including students).

Students will be required to have a record of SBI (State Bureau of Identification) and a child protective report on file with Central Maine Community College. Field experience sites retain the right to accept or deny placement of students based on many conditions, including criminal and child protective records. Therefore, criminal or child protective history could jeopardize an individual's ability to successfully meet all the requirements of the program.

**Early Childhood Education majors must obtain a minimum grade of C in each Early Childhood Education course and a minimum GPA of 2.0 or better to graduate.**

## Program Educational Outcomes

1. Recognize and maintain all required health and safety policies and practices.
2. Apply theories of child development to plan inclusive, developmentally appropriate curriculum and environments.
3. Demonstrate positive supportive interactions with young children.
4. Describe the benefits of positive respectful partnerships with diverse families.
5. Demonstrate a commitment to NAEYC's Code of Ethical Conduct and the standards of professional practice.
6. Assess children's ongoing developmental and cultural needs.
7. Articulate a professional philosophy of early childhood education.
8. Work as a part of an early childhood education team.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ECE 100	Introduction to Early Care and Education	3
ENG ____*	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	(4)
PSY 114	Child Development	3
SOC 220	Sociology of the Family	3
MAT ____*	Elective: Select <b>one</b> of the following: MAT 100, 101, 102, 122, or 135	3
LER 100	First Year Seminar for ECE/EDU	1
<b>Semester II</b>		
ECE 105	Infant and Toddler Curriculum	3
ECE 147	Infant and Toddler Field Work & Prep	3
ECE 150	Language and Literacy for Young Children	3
PSY 101	Introduction to Psychology	3
COM ____	Select <b>one</b> of the following: COM 100 Public Speaking COM 101 Interpersonal Communication	3
<b>Semester III</b>		
ECE 113	Curriculum and Environments for Young Children	3
ECE 297	Pre-School Field Experience	3
ECE 205	Education of Children with Special Needs	3
— —	Elective: Lab Science; select <b>one</b> of the following sets of courses: BIO 101/102 BIO 115/116 CHY 101/102	4
— —	Writing course (see page 37-38)	3
<b>Semester IV</b>		
— —	Elective: ECE or EDU	3
ECE 298	Capstone in Early Childhood Education	6
EDU 284	Guidance and Self-Regulation	3
— —	Elective: ECE	3
<b>Total Credit Hour Requirements</b>		<b>62</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Education (EDU)

## Program Description

The Associate in Science Degree in Education program prepares students for transfer to baccalaureate degree granting institutions to become education technicians, certified teachers or to provide continuing education to certified teachers in PreK-12 education school settings. Graduates may earn additional credentials with the Advanced Certificate in Education if they choose to go for an Education Technician III certification with the state.

## Program Educational Outcomes

Upon completion the graduate will be prepared to:

Demonstrate understanding of how students learn and develop to plan learning opportunities that support a student's physical, cognitive and social/emotional development.

1. Demonstrate understanding of how students learn and develop to plan learning opportunities that support a student's physical, cognitive and social/emotional development.
2. Use a variety of instructional strategies to meet the diverse learning needs of student and to encourage critical thinking and problem solving.
3. Describe the principles of extrinsic and intrinsic motivation and uses specific management strategies to create a learning environment that fosters positive social interaction and engagement in meaningful learning experiences.
4. Recognize that students differ in their approaches to learning and create learning opportunities that are modified and adapted to diverse learners.
5. Plan lessons and activities that are based on knowledge of the subject matter, knowledge of the individual students and knowledge of the State and/or National standards.
6. Recognize the appropriate formal and informal assessment strategies to inform curricula decisions, adjust instruction and evaluate learning outcomes that are matched to the physical, cognitive and social/emotional needs of individual students.
7. Reflect on their practices to continually evaluate the effects of planning and decisions made and to seek opportunities to grow professionally.
8. Demonstrate ethical behavior when interacting with students, school colleagues, families and professional agencies to support students' learning and well-being.

## Associate in Science Degree Requirements

Semester I		Credit Hours
EDU 101	Introduction to Education	3
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
____	Elective	3
MAT 100*	Intermediate Algebra or higher (excluding MAT 101)	3
PSY 101	Introduction to Psychology	3
LER 100	First Year Seminar for ECE/EDU	1
<b>Semester II</b>		
PSY 111	Development Psychology	3
EDU 150	Pathways to Teacher Certification	3
____	Select <b>one</b> of the following:	3
	ENG 125 Introduction to Literature	
	Elective: Humanities	
MAT 135*	Statistics	3
COM 100	Public Speaking	3
<b>Semester III</b>		
EDU 185	Fundamentals of Educating Students with Special Needs	3
____	Lab Science Elective with lab (level 101 or higher in BIO, CHY, PHY)	4
____	Elective: Humanities	3
____	Select <b>one</b> of the following:	3
	PSY 114 Child Development	
	Elective: Social Science	
____	Advising Pathway course	3
<b>Semester IV</b>		
ENG 230	Children's Literature	3
____	Advising Pathway course	3
____	Advising Pathway course	3
____	Advising Pathway course	3
____	Advising Pathway course	3
<b>Total Credit Hour Requirements</b>		<b>62-63</b>

\*Course placement determined by assessment test scores and/or prior college coursework

# Education Advanced Certificate (EDU)

## Program Description

The Advanced Certificate in Education degree will provide students with an education program consisting of upper-level courses, beyond the Associate in Science in Education, to enter the education workforce to gain a position as a K-12 Education Technician III or educational professional. This advanced certificate is way for current practitioners to improve their credentials, raise their salaries, and offers a step toward tackling the issue of projected education professional, early childhood educators and teacher shortages in Maine.

## Program Educational Outcomes

Upon completion the graduate will be prepared to:

1. Observe, document and assess young children and use systematic observations, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence children's development.
2. Demonstrate understanding of the importance of diverse and complex characteristics of children, families and communities.
3. Use a wide array of developmentally effective approaches by understanding, articulating and using strategies and tools to positively influence children's development and learning.
4. Define occupational resiliency in the educating profession and the skills necessary to build a supportive organizational network.
5. Realize that increased well-being and a positive learning environment impacts the care teacher give to students and their families.
6. Design, implement and evaluate relevant, challenging and responsive curriculum that promotes comprehensive developmental and learning outcomes for students of all cultures which includes physical activity and nutrition activities across the curriculum.
7. Identify, explain and apply appropriate guidance techniques and theories as an important classroom management tool.

## Advanced Certificate Requirements

Semester I		Credit Hours
EDU 280	Mindfulness for Student, Family and Self	3
EDU 282	Adverse Early Childhood Experiences & Resilience	3
PSY 202	Development Disabilities and Psychosocial Rehabilitation	3
EDU 284	Guidance and Self-Regulation	3
EDU 220	Physical Activity and Nutrition for Students in K-12	3
Semester II		
EDU 222	Social Justice and Diversity in the Classroom	3
— —	PSY 200 or SOC 200 level	3
EDU 286	Nutrition, Gardening and Cooking with Students	3
EDU 288	Self Care and Thriving	3
EDU 290	Strategies, Styles and Habits of Mind	3
<b>Total Credit Hour Requirements</b>		<b>30</b>

\*Course placement determined by assessment test scores and/or prior college coursework

Admission Criteria: Students who have earned an associate degree or higher in the field of education, early childhood education, human services, or another field as approved by the program chairperson may be admitted to the program.



# Electromechanical Technology (ELT)

## Program Description

The Associate in Applied Science Degree in Electromechanical Technology prepares students for careers in electricity and electronic fields that require technicians who are capable of dealing with the challenge of rapid changes in technology. Emphasis is placed on providing a solid theoretical background in electricity and electronics balanced with industrial control technologies.

This program covers five major content areas of study:

- 1. Electricity and Industrial Controls:** students learn how to read schematic diagrams and follow National Electrical Code standards in connecting devices and motor controls;
- 2. Digital and Analog Electronics:** students become skilled in the use of test instruments, digital and analog circuitry, microprocessors and computers.;
- 3. Process Control and Measurement:** students study pressure, temperature, level, analytical and flow measurement concepts that are implemented to produce feedback control loop systems;
- 4. Robotics and Automation:** students use personal computers to program and control industrial robotic arms and program intelligent controls such as A-C frequency drives and programmable Controllers; and
- 5. Telecommunications:** students study data communication and networking.

Students have the opportunity to earn a Certificate or an Associate in Applied Science degree. The ELT program works with and is approved by the State-of- Maine Electrician's Examination Board to meet examination requirements. It is the responsibility of students to apply for a Helpers license at the start of the ELT program. The state allows graduates of the Electromechanical A.A.S. to sit for the Journeyman exam if they also have 45 hours in the current NEC (ELT-117). It is the intent that students do so within one year after graduation. They must contact our Registrar to send an official transcript to the Electrician's Examining board when applying to sit for the exam. Students have 4000 hours of experience for ELT years; but still need additional hours of experience to apply for a license. After passing the exam, they can apply for a Journeyman in Training license when they have 2000 additional hours of licensed work experience. They can also apply for a Journeyman license after they have 4000 additional hours of licensed work experience.

Upon graduation, students qualify for entry level positions as: electromechanical technicians, electrical/electronic technicians, electricians, engineering assistants, instrument technicians, main-tenance technicians, robotic technicians, and computer technicians. The work is widely diverse from maintenance of equipment and systems in the industrial environment to programming intelligent controllers, and electrical installations.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ELT 101	Electricity I	3
ELT 123	Electrical Controls I	3
ELT 153	Digital Logic	3
MAT ____ *	Select <b>one</b> of the following:	3
	MAT 100 Intermediate Algebra	
	MAT 122 College Algebra	
____	Elective: Humanities/Social Science	3
Semester II		
ELT 115	Electricity II	3
ELT 145	Electronic Devices I	3
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
ELT 201	Communication Electronics	3
____	Elective: (MAT 105 or higher)	3
____	Elective: Humanities/Social Science	3
Semester III		
ELT 221	Industrial Controls	3
ELT 231	Process Measurement	3
ELT 245	Electronic Devices II	3
ELT 271	Industrial Robotics	3
	Elective: Mathematics/Science	3-4
Semester IV		
ELT 222	Programmable Controls	3
ELT 232	Process Control	3
ELT 246	Linear Integrated Electronics	3
ELT 276	Automation Systems	2
ENG 201	Technical Writing	3
____	Elective: Humanities/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>65-66</b>

\*Course placement determined by assessment test scores and/or prior college coursework

**High school prerequisite(s) for program admission: Algebra I (Algebra II preferred)**

### Notes:

**ELT 100 and 200 labs are corequisites with all ELT courses, except ELT 117. Labs are required, scheduled environments that allow students to complete experiments, demonstrations, and projects assigned in ELT courses. The open lab concept requires students to manage their lab time to available equipment and instructor assistance.**

**ELT 117 National Electrical Code I is required to sit for the journeyman in training exam.**

# Electromechanical Technology Certificate (ELT)

## Program Educational Outcomes

Upon completion of the Associate in Applied Science Degree in the Electromechanical Technology Program, the graduate is prepared to:

1. Demonstrate oral and written presentation skills.
2. Practice appropriate electrical safety procedures.
3. Employ entry-level skills in the electrical, electronic, and process control fields.
4. Analyze electrical and electronic prints and specifications.
5. Compute operating voltages and currents for electrical and electronic circuits.
6. Select and utilize test equipment to measure electrical quantities and troubleshoot circuits.
7. Design and hook up control systems found in Process Control.
8. Employ personal computer skills to operate technical application software and set up networking.
9. Demonstrate a commitment to life-long learning through formal education, on-the-job inservice or through independent participation in other technical/trade resources.

## Certificate Requirements

Semester I		Credit Hours
MAT ____*	Select <b>one</b> of the following: MAT 100 Intermediate Algebra MAT 122 College Algebra	3
BCA 120	Introduction to Computer Applications	3
ELT 101	Electricity I	3
ELT 123	Electrical Controls I	3
ELT 153	Digital Logic	3
<b>Semester II</b>		
ENG ____*	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
ELT 115	Electricity II	3
ELT 145	Electronic Devices I	3
ELT 201	Communication Electronics	3
<b>Total Core Credit Requirements</b>		<b>27</b>

\*Course placement determined by assessment test scores and/or prior college coursework

**ELT 100 and 200 labs are corequisites with all ELT courses, except ELT 117. Labs are required, scheduled environments that allow students to complete experiments, demonstrations, and projects assigned in ELT courses. The open lab concept requires students to manage their lab time to available equipment and instructor assistance.**

# Esports Management (ESP)

## Program Description

The Associate in Applied Science Degree in Esport Management will prepare students for positions in the esports industry. The goal is to provide students with the skills necessary to fulfill the growing need for business professionals in esports. Esports is an organized form of competitive video gaming. Competitions are typically multiplayer video games between professional gamers, organized both online and offline. Esports spectators attend or live stream events.

## Program Educational Outcomes

Upon completion of the A.A.S. in Esports Management the graduate will be able to:

1. Apply critical thinking and problem solving techniques in an esports environment.
2. Utilize effective management and supervisory skills to organize teams, groups and individuals in esports and business.
3. Utilize technology to analyze business problems and construct appropriate solutions.
4. Diagnose marketing and management related issues and plan future actions.
5. Demonstrate interpersonal, written, and presentation skills required for successful employment in the esports industry.

## Career Opportunities

Graduates will be prepared to work in the administration of esports and may pursue a variety of careers which includes: esports manager, event staff supervisor, community manager, event planner, social media specialist, esports team coach, esports financial manager or account supervisor, esports business development manager or assistant director esports.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ESP 100	Introduction to Esports Management	3
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
BCA 120	Introduction to Computer Applications	3
BUS 115	Leadership & Interpersonal Relations	3
MAT 101 *	Business Mathematics	3
Semester II		
ESP 150	World of Competitive Gaming	3
GAM 156	Esports Game Technologies	3
BUS 215	Principles of Marketing	3
COM ____	Select <b>one</b> of the following:	
	COM 100 Public Speaking	3
	COM 101 Interpersonal Communication	
ENG 220	Business Communication	3
Semester III		
ESP 225	Aspects of Game Design	3
ESP 228	Esports Event Management	3
ACC 210	Principles of Accounting I	3
MAT ____ *	MAT 100 or higher	3
____	Elective: Social Science	3
Semester IV		
ESP 250	Esports Industry Trends	3
ESP 290	Esports Planning and Strategy	3
ACC 212	Principles of Accounting II	3
BUS 286	Social Media Marketing	3
ECO 201	Macroeconomics	3
<b>Total Credit Hour Requirements</b>		<b>60-61</b>

\*Course placement determined by assessment test scores and/or prior college course work.

# Facilities Maintenance & Management (FMM)

## Program Description

The purpose of the Associate in Applied Science (A.A.S.) degree in Facilities Maintenance & Management is to prepare students for employment in building management by providing them the opportunity to learn entry level skills in the installation, operation, maintenance and repair of heating, air conditioning and refrigeration systems. The program is designed to build a foundation of construction, electrical, HVAC/R and plumbing skills through practical application and field experience of the methods, materials, and practices of the industry. Students will develop the skills needed to maintain, service, repair and operate advanced facility systems and computerized maintenance management systems in commercial and industrial institutions such as hospitals, schools, restaurants, community centers and residential office buildings.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

Demonstrate working knowledge of current codes and OSHA standards for facilities.

1. Demonstrate safe and appropriate use of electrical, HVAC/R, plumbing and construction equipment.
2. Troubleshoot, diagnose, maintain and repair basic HVAC/R equipment.
3. Service and repair basic plumbing systems.
4. Perform basic construction repairs.
5. Communicate effectively and work as part of a team using oral and written skills.

## Non-Academic Requirements

Students must be able to lift 50 pounds to shoulder height, crawl in small spaces and climb a ladder and equipment using three points of contact.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
OHS 115	Construction Health and Safety	3
PHT 140	Print Reading and Interpretation	2
PHT 103	Plumbing Technology I	5
BUS 145	Facilities Management	3
<b>Semester II</b>		
PHT 100	Plumbing Code	3
PHT 125	Plumbing Technology II	5
BCT 180	Introduction to Building Science	3
COM 101	Interpersonal Communication	3
MAT 100*	Intermediate Algebra	3
<b>Semester III</b>		
ELT 101	Electricity I	3
ELT 123	Electrical Controls I	3
HVT 105	Basic Refrigeration Principles	3
HVT 111	Electricity for HVAC/R	3
— —	Elective: Math or Science 100 or higher	3-4
<b>Semester IV</b>		
HVT 152	Heat Pumps	3
HVT 180	HVAC/R Diagnostics and Servicing	4
PHI 111	Introduction to Ethics	3
ENG 201	Technical Writing	3
— —	Elective: Social Science	3
<b>Total Credit Hour Requirements</b>		<b>64-66</b>

**ALSO AVAILABLE  
100% ONLINE**

# General Studies (GEN)

## Program Description

The Associate in Arts Degree in General Studies is designed for individuals who have yet to declare a major and are interested in exploring different programs, who are completing program prerequisites, or who are interested in the flexibility to create a customized degree program for which no other major exists. A general education core of courses in the program offers students the opportunity to develop skills in Communication, the Humanities, the Social Sciences, Mathematics and Science.

Twenty-seven additional credit hours selected from an advising pathway allows for the acquisition of further knowledge to enhance workplace skills, and/or to provide a broad spectrum of educational experiences to further develop academic, occupational, or personal aspirations.

In addition, this program may prepare students who plan to transfer to a four-year college or university in pursuit of a bachelor's degree. In order to ensure optimal transfer of credits to upper division programs, students should work collaboratively with their academic advisor and the Director of Placement and Transfer Services to plan a course of study that meets their goals. To facilitate the transfer of courses, students should identify, as soon as possible, the upper division program and institution in which they plan to enroll.

## Program Educational Outcomes

Upon completion graduate is prepared to:

1. Communicate clearly and effectively employ written and oral skills.
2. Access, analyze, summarize and interpret a variety of reading materials.
3. Think critically and link concepts across a variety of disciplines.
4. Conceptualize society as being culturally diverse within a global community.
5. Evaluate personal values, interests and education/career goals.

## Online Program Priority Enrollment Deadline

The General Studies program is available online. The priority enrollment deadline for the online program is May 15, which means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit must be received, and online orientation completed.

## Associate in Arts Degree Requirements

General Education		Credit Hours
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
____	Writing course	3
MAT 100*	Intermediate Algebra or higher	3-4
____	Natural Science with a lab	4
____	Creative Arts elective	3
____	Social Science electives	6
____	Humanities electives	6
____	Diversity elective	3
____	Ethical Reasoning elective	3
	(See pages 37-38 for approved list)	
		34-36 credits
LER 100 First Year Semester		1
Advising Pathway (w/advisor endorsement)		25-27
<b>Total Credit Hour Requirements</b>		<b>62-64</b>

\*Course placement determined by assessment test scores and/or prior college coursework.

See page 37-38 for a list of Writing, Creative Arts, Ethical Reasoning and Diversity electives.



# Graphic Communications (GRC)

## Program Description

The Associate in Applied Science Degree in Graphic Communications provides students with broad exposure to graphic design and digital imaging technologies while preparing them for a variety of employment opportunities. Students receive instruction in the topics of art theory, typography, graphic design, photographic composition, image editing, color theory, web page development, and file preparation. Students also gain hands-on experience in studio photography, wide format printing, screen printing, vinyl cutting, and digital printing and finishing. Applications studied include Adobe Illustrator, InDesign, Photoshop, Dreamweaver and other software.

Graduates of this program pursue a variety of careers including those in design and layout, desktop publishing, digital imaging, screen printing, and digital photography. Employment may be found at both small and large commercial printers, copy centers, and media companies. The program's offerings also prepare graduates for self-employment options and for continued education at four-year institutions.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Demonstrate basic skill competency using industry standard software applications.
2. Demonstrate basic skill competency operating GRC peripherals and equipment.
3. Create a portfolio which will be updated throughout the student's enrollment in the GRC program.
4. Demonstrate the ability to work collaboratively and to participate in critique sessions where the student's work and the work of others will be examined and edited.
5. Demonstrate the ability to apply principles and elements of design as projects progress from the ideas stage to a finished project.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 100*	Intermediate Algebra or higher	3
GRC 103	Digital Page Layout I	3
GRC 176	Photoshop I	3
GRC 102	Graphic Design I	3
<b>Semester II</b>		
GRC 106	Vector Illustration I	3
GRC 119	Web Media I	3
GRC 107	Digital Systems & Equipment I	3
COM ____	Elective: Communication, select <b>one</b> of the following:	3
	COM 100 Public Speaking	
	COM 101 Interpersonal Communication	
ENG 201	ENG 201 Technical Writing	3
<b>Semester III</b>		
____	Elective Math/Science	3
____	Elective: GRC (choose from below)	3
____	Elective: GRC (choose from below)	3
____	Elective: GRC (choose from below)	3
____	Elective: Humanities/Social Science	3
<b>Semester IV</b>		
GRC 298	Production Experience	3
____	Elective: GRC (choose from below)	3
____	Elective: GRC (choose from below)	3
____	Elective: GRC (choose from below)	3
____	Elective: Humanites/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>60-61</b>

\*Course placement determined by assessment test scores and/or prior college coursework

## Graphic Communications Electives

ART 101 Intro to 2-D Design	GRC 220 Web Media II	GRC 297 Internship Experience
ART 103 Drawing I	GRC 249 Digital Photo Editing	BUS 101 Small Business Management
GRC 118 Intro to Digital Photography	GRC 250 Graphic Design II	BUS 215 Principles of Marketing
GRC 152 Portfolio Design & Development	GRC 252 Advanced Screen Printing	CPT 252 Web Development
GRC 153 Intro to Screen Printing	GRC 254 Digital Imaging & Wrap Installation	CPT 253 Java Scripting
GRC 204 Vector Illustration II	GRC 276 Photoshop II	
GRC 210 Digital Page Layout II	GRC 296 Special Topics	

# Heating, Ventilation, Air Conditioning & Refrigeration (HVT)

## Program Description

The Associate in Applied Science Degree in Heating, Ventilation, Air Conditioning and Refrigeration Technology will prepare students for entry-level employment in the installation, operation, maintenance, and repair of heating, air conditioning and refrigeration systems. The program includes courses in practical field experience.

Upon successful completion of the A.A.S. program, graduates are eligible to acquire the State of Maine Journeyman 1 & 2 Oils - up to 15 GPH licensure and eligible to acquire the CETP certification necessary for Maine licensure as propane and natural gas technicians.

## Program Educational Outcomes

Upon completion of the Associate in Applied Science in Heating, Ventilation, Air Conditioning and Refrigeration Technology the graduate will be able to:

1. Explain the basic theory of the subject matter or HVAC/R system for the course of instruction based on industry standards.
2. Employ a systematic approach to troubleshooting a HVAC/R system malfunction and prepare an effective repair solution in residential and light commercial applications.
3. Analyze component failures to determine the root cause of the component failure.
4. Verify if the path of repair was correct by testing and/or completing a work order/report.
5. Demonstrate the correct usage of tools and supplies required to service and maintain systems.
6. Obtain EPA 608 Universal Certification.

## Non-Academic Requirements

Students must be able to lift 50 pounds to shoulder height, crawl in small spaces and climb a ladder and equipment using three points of contact.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 104*	Technical Mathematics	3
HVT 105	Basic Refrigeration Principles	3
HVT 111	Electricity for HVAC/R	3
PHT 140	Print Reading & Interpretation	2
OHS 115	Construction Health & Safety	3
Semester II		
HVT 152	Heat Pumps	3
HVT 180	HVAC/R Diagnostics and Servicing	4
HVT 120	Residential Load Calculations	2
— —	Elective: General Education	3
COM ____	Select <b>one</b> of the following:	3
	COM 100 Public Speaking	
	COM 101 Interpersonal Communication	
Semester III		
PHT 207	Heat I	4
PHT 209	Propane and Natural Gas I	4
PHT 225	Maine Oil/Solid Fuel Code	1
ENG	Select <b>one</b> of the following:	3
— —	ENG 201 Technical Writing	
	ENG 220 Business Communication	
— —	Elective: Math or Science 100 or higher	3-4
Semester IV		
HVT 252	HVAC/R System Design	3
HVT 255	Commercial Refrigeration	2
PHT 259	Propane and Natural Gas II	4
PHI 111	Introduction to Ethics	3
HVT 297	Externship	3
<b>Total Credit Hour Requirements</b>		<b>62-64</b>

\*Course placement determined by assessment test scores and/or prior college course work.

# Heating, Ventilation, Air Conditioning & Refrigeration Certificate (HVT)

## Program Description

Upon successful completion of the Certificate program, graduates are eligible to obtain EPA 608 Universal Certification. This certification is required for technicians handling refrigerants.

## Program Educational Outcomes

Upon completion of the Certificate in Heating, Ventilation, Air Conditioning and Refrigeration Technology the graduate will be able to:

1. Explain the basic theory of the subject matter or HVAC/R system for the course of instruction based on industry standards.
2. Analyze a scenario based upon an HVAC/R equipment system failure.
3. Employ a systematic approach to troubleshooting a HVAC/R system malfunction and prepare an effective repair solution to residential applications.
4. Obtain EPA 608 Universal Certification.

## Non-Academic Requirements

Students must be able to lift 50 pounds to shoulder height, crawl in small spaces and climb a ladder and equipment using three points of contact.

## Certificate Requirements

Semester I		Credit Hours
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 104*	Technical Mathematics	3
HVT 105	Basic Refrigeration Principles	3
HVT 111	Electricity for HVAC/R	3
PHT 140	Print Reading & Interpretation	2
OHS 115	Construction Health & Safety	3
<b>Semester II</b>		
HVT 152	Heat Pumps	3
HVT 180	HVAC/R Diagnostics and Servicing	4
HVT 120	Residential Load Calculations	2
— —	Elective: General Education	3
COM ____	Select <b>one</b> of the following:	3
	COM 100 Public Speaking	
	COM 101 Interpersonal Communication	
<b>Total Credit Hour Requirements</b>		<b>32-33</b>

\*Course placement determined by assessment test scores and/or prior college course work.

**ALSO AVAILABLE  
100% ONLINE**

# Human Services (HUS)

## Program Description

The Associate in Applied Science Degree in Human Services will prepare graduates for entry-level positions in areas of substance abuse, mental health, corrections, developmental disabilities, child and adolescent services, and gerontology. Upon completion of the nine courses identified by italics, students are eligible for certification as a MHRT/C technician (Mental Health Rehabilitation Technician/Community).

**Note: All applicants are advised that Human Services students are required to complete practicums in social service agencies. Therefore, students may be required to have a record of SBI (State Bureau of Identification) on file with the practicum site. Practicum sites retain the right to accept or deny placement of students based on many conditions, including criminal and child protective records. Therefore, criminal or child protective history could jeopardize an individual's ability to successfully meet all the requirements of the program.**

A grade of "C" or better in all Human Services courses, a cumulative GPA of 2.0 or better, completion of 30 hours of the program and approval of the Department Chair is required before enrollment in the Human Services Practicums.

## Career Opportunities

Graduates can be employed in the following capacities: activity therapist associate, addictions counselor, crisis counselor, human development associate, mental health associate, rehabilitation worker, family worker, activity director/associate, and volunteer coordinator. The facilities that employ individuals in these capacities, include: community mental health centers, programs for the elderly, hospitals, social service and mental health programs. Graduates may also be employed in facilities and programs for the developmentally disabled, special programs for alcoholics and drug abusers, youth services, and child care and Head Start programs.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Utilize knowledge of the basic counseling skills necessary to establish collaborative relationships with clients and their families.
2. Demonstrate knowledge of formal and informal support systems available in the community.
3. Analyze problems and use appropriate methods in collaboration with other team members in the treatment of individual, family, group and community human service problems.
4. Demonstrate awareness of the challenges faced by clients with regard to human-rights issues, financial problems, administrative/ legal hurdles and other issues/concerns.
5. Assume ethical responsibility and abide by the standards governing the field of Human Services.

6. Establish and maintain continuing education as a function of growth and maintenance of professional competence.

## Admission Requirements

In addition to the general admissions requirements of the College, applicants to this program must have successfully completed the following:

## Preregistration Requirements

The following are additional requirements needed prior to registration in the first practicum course. Other programs at Central Maine Community College and comparable colleges have similar requirements.

1. A physical exam performed by a qualified health care professional
2. Proof of the following immunizations or titers:
  - Measles Mumps Rubella (MMR)
  - Hepatitis B Virus (HBV) - 3 doses
  - Adult Tetanus
  - Purified Protein Derivative (PPD for TB)
  - Varicella titer for Chicken Pox
3. Professional liability insurance is required.
4. All students are advised to purchase their own Health/Accident Insurance

Once an applicant's file is complete, the applicant is invited to an informal meeting with the HUS Department Chairperson for the purpose of reviewing the program and selecting the appropriate course of study.

## Online Program Priority Enrollment Deadline

The Human Services program is available online. The priority enrollment deadline for the online program is May 15, which means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit must be received, and online orientation completed.

# Human Services (HUS)

**ALSO AVAILABLE  
100% ONLINE**

## MHRT/C CERTIFICATE COURSES INDICATED BY DOUBLE ASTERISKS (\*\*)

Mental Health Rehabilitation Technician/Community

The certification is given by the Muskie Institute — the Maine State certification body for associate and some bachelor degree programs in Human Services. The board does give the certificate if the MINIMUM courses marked in double asterisks (\*\*) are taken, however students are STRONGLY encouraged to complete the whole program.

**After completing HUS 112, SOC 200, PSY 151, PSY 212, and PSY 202 students would qualify for the Provisional MHRT/c Level B certificate which will enable some early job placement in the human service field while the remainder of the courses are completed.**

### Advising Pathways

There are two advising pathway options in the Human Services program that students can select from depending on their primary career goals.

#### Human Services pathway

PSY 111, SOC 220, PHI 101, HUS 241 and HUS 251

#### Addictions pathway

HUS 101, 160, 161, 242 and 252

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
BIO 101	General Biology Lecture	3
BIO 102	General Biology Lab (or higher)	1
ENG ____*	Select <b>one</b> of the following:	
	ENG 101 College Writing	3
	ENG 105 College Writing Seminar	(4)
HUS 112**	Introduction to Community Mental Health	3
SOC 200**	Issues in Diversity	3
____	Advising Pathway	3
Semester II		
PSY 151**	Interviewing and Counseling	3
PSY 212**	Abuse, Trauma and Recovery	3
PSY 202**	Developmental Disabilities and Psychosocial Rehabilitation	3
PSY 101	Introduction to Psychology	3
____	Advising Pathway	3
Semester III		
PSY 204**	Voc. Aspects of Disability and Voc. Rehabilitation Counseling	3
HUS 155**	Case Management	3
____	Advising Pathway	3
MAT ____*	Elective: MAT 100 (or higher)	3
HUS ____	Advising Pathway (practicum I)	4
Semester IV		
SOC 201**	Sociology of Aging	3
HUS 153**	Substance Abuse	3
HUS ____	Advising Pathway (practicum II)	4
ENG ____	Select <b>one</b> of the following:	3
	ENG 201 Technical Writing	
	ENG 211 Creative Writing	
	ENG 220 Business Communication	
	ENG 221 Adv Composition & Research	
MAT ____*	Elective: MAT 101 (or higher)	3
	(MAT 135 strongly recommended for students interested in transferring)	
Total Credit Hour Requirements		63-64

\*Course placement determined by assessment test scores and/or prior college course work.

**ALSO AVAILABLE  
100% ONLINE**

# Justice Studies (JUS)

*Pending Board Approval*

## Program Description

The Associate in Science (A.S.) degree in Justice Studies is an interdisciplinary program designed to prepare students for transfer to a four-year institution. The program provides foundational learning in criminal justice and related social sciences and serves as a foundation for studies in several areas, including social services, advocacy, community development, law, and corrections.

This program expands upon the strengths of the existing A.A.S in Criminal Justice and is designed to meet the following goals: (1) provide students the opportunity for in-depth study in preparation for continued undergraduate studies; (2) utilize the interdisciplinary contributions of sociology, law and psychology that are relevant to justice studies; (3) examine how these contributions have shaped public policies, including those of the criminal justice system; (4) begin to explore the potential for transformative justice.

## Program Educational Outcomes

Upon completion the graduate will be able to:

1. Demonstrate an understanding of the sociological and psychological theories of crime causation and evaluation of human behavior
2. Apply critical thinking to multiple academic disciplines for ethical analysis of societal issues and conducting community research
3. Demonstrate the ability to apply principles of statutory law and due process within the justice system
4. Demonstrate interpersonal, written, and presentation skills required for successful employment in a justice-related field

## Online Program Priority Enrollment Deadline

The Justice Studies program is available online. The priority enrollment deadline for the online program is May 15, which means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit must be received, and online orientation completed.

## Non-Academic Requirements

Students in the Justice Studies program will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from acceptance into the program. The applicant would be denied acceptance if a she or he has a disqualifying criminal conviction or pending criminal charges. Such conviction or conduct prohibits a person from being certified or licensed as a police officer in the State of Maine.

## Associate in Science Degree Requirements

		Credit Hours
Semester I		
CRJ 101	Introduction to Criminal Justice	3
ENG ____*	Select <b>one</b> of the following:	
	ENG 101 College Writing	3
	ENG 105 College Writing Seminar	(4)
COM ____	Elective: Communication (100 or higher)	3
MAT ____*	Elective: Mathematics (100 or higher)	3
____	Restricted elective: ANT/ECO/POS/PSY/SOC	3
Semester II		
____	Science with lab	4
PHI ____	Elective: Philosophy (101 or higher)	3
HUM ____	Elective: Humanities	3
JUS 247	Research Methods for Justice Studies	3
JUS 210	The Juvenile Justice System	3
Semester III		
JUS 204	Victimology	3
JUS 205	Crisis Intervention for Justice Studies	3
CRJ/JUS	Elective: (200 or higher)	3
____	Elective: General Education	3
____	Elective: Mathematics or Science (100 or higher)	3(4)
Semester IV		
JUS 232	Criminal Psychology	3
JUS 252	Offender Rehabilitation	3
JUS 245	Criminology	3
CRJ/JUS	Elective: (200 or higher)	3
MAT ____*	Elective: Mathematics (122 or higher)	3
<b>Total Credit Hour Requirements</b>		<b>61-63</b>



# Liberal Studies (LIB)

## Program Description

The Associate in Arts Degree in Liberal Studies is designed primarily for individuals who plan to transfer to a four-year college or university in pursuit of a bachelor's degree. A core of courses in the program offers students the opportunity to develop skills in Communication, the Humanities, the Social Sciences, Mathematics and Science. Courses taken as electives afford individuals an opportunity to explore a variety of academic disciplines.

In order to ensure optimal transfer of credits to upper division programs, students should work collaboratively with their academic advisor and the Director of Placement and Transfer Services to plan a course of study that meets their goals. To facilitate the transfer of courses, students should identify, as soon as possible, the upper division program and institution in which they plan to enroll.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Communicate clearly and effectively in a variety of contexts.
2. Access, evaluate and utilize a variety of information resources.
3. Articulate and utilize fundamental mathematical concepts.
4. Explain basic general scientific laws, theories, and concepts in either the biological or physical sciences.
5. Apply critical thinking skills and link concepts across a variety of disciplines.
6. Critically examine the values, rituals and beliefs of cultures that are separated in time or space from one's own.

## Admission Requirements

In addition to the general admissions requirements of the College, applicants to this program must have successfully completed the following:

**High school prerequisite(s) for program admission: ENG 101 or ENG 105 and MAT 100 prerequisites.**

## Associate in Arts Degree Requirements

	Credit Hours
ENG ____*    Select <u>one</u> of the following:	3
ENG 101 College Writing	
ENG 105 College Writing Seminar	(4)
ENG 125    Introduction to Literature	3
COM ____    Select <u>one</u> of the following:	3
COM 100 Public Speaking	
COM 101 Interpersonal Communication	
COM 121 Group Process	
MAT ____*    MAT 100 or higher	3
____ _        Natural Science with a lab	4
____ _        Creative Arts elective	3
____ _        Social Science elective	6
____ _        Humanities elective	3
____ _        Diversity elective	3
____ _        Ethical Reasoning elective	3
(See pages 37-38 for approved list)	
<b>General Education Electives</b>	<b>27</b>
(w/ advisor endorsement)	
Note: A maximum of six credit hours may be taken outside of a General Education area.	
<b>Total Credit Hour Requirements</b>	<b>61-62</b>

\*Course placement determined by assessment test scores and/or prior college course work.

# Life Sciences (LIF)

## Program Description

The Associate in Science Degree in Life Sciences is designed to provide students with a broad, general survey of scientifically accumulated knowledge. Students completing this degree could enter the workforce as scientific technicians or transfer into science, technology, engineering and math (STEM) majors at baccalaureate institutions with a primary focus on biological and life sciences. The A.S. in Life Science degree provides appropriate course sequencing for efficient transfer, reinforces and deepens core learning across the curriculum, and supports and strengthens the STEM infrastructure of the College.

## Career Opportunities

Graduates can find employment as scientific technicians and in other entry-level positions in science/laboratories. Program graduates may want to consider transferring to obtain an advanced degree with potential employment as: pharmacists, biomedical engineers, biochemists, environmental scientists, biologists, etc.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Demonstrate knowledge of the major chemical and biological topics in Life Sciences.
2. Effectively communicate scientific ideas, assumptions, observations and results in oral and written formats.
3. Demonstrate critical thinking and problem-solving skills by applying scientific principles.
4. Use appropriate laboratory procedures to generate and analyze quantitative and qualitative data to form conclusions.
5. Demonstrate the safe and proper use of scientific instrumentation, measuring devices, chemical reagents, media and tools to collect relevant and quality data.
6. Understand the relationship of the Life Sciences to other areas of study and be able to make informed ethical choices.

## Admission Requirements

In addition to the general admissions requirements of the College, applicants to this program must be ready to enroll in ENG 101 or ENG 105 and MAT 122.

## Associate in Science Degree Requirements

Communication		Credit Hours
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
ENG 221	Advanced Composition & Research	3
COM 100	Public Speaking	3
Mathematics and Sciences		
MAT ____*	MAT 122 or higher	9-10
____	Lectures: BIO/CHY/PHY	21
____	Labs: BIO/CHY/PHY	7-9
____*	Elective: Mathematics or Science	3-4
Humanities and Social Science		
PHI 111	Introduction to Ethics	3
____	Elective: Humanities	3
____	Elective: Social Science	3
____	Elective: Open	3
<b>Total Credit Hour Requirements</b>		<b>61-66</b>

\*Course placement determined by assessment test scores and/or prior college course work.

# Medical Assistant (MEA)

## Program Description

The Associate in Applied Science in Medical Assistant prepares graduates for entry-level employment in a physician's office or those capacities in which medical secretarial and/or basic clinical and laboratory training are required. The program curriculum will provide studies in Anatomy and Physiology, Communications, Medical Administrative Procedures, Medical Law and Ethics, and Medical Assistant Clinical Procedures. Also, a 240-hour Externship will be required in semester IV.

*A grade of "C" or better in all MEA, MET, BIO, MAT, BUS courses and BCA 120, a cumulative GPA of 2.0 or better, completion of the 1st and 2nd semester courses and approval of the Department Chair is required before enrollment in the first Medical Assistant Externship.*

## Career Opportunities

Jobs for which graduates are expected to be qualified include: medical office assistant, clinical medical assistant, in a single or group practice of physicians, hospital, or public health facility, and other capacities requiring medical assisting and office management skills. In addition, students who obtain national certification as a Registered Medical Assistant (RMA), can glean additional employment opportunities.

## Program Educational Outcomes

Upon completion of the graduate is prepared to:

1. Evaluate and perform medical office administrative procedures using and integrating medical terminology to include records management coding and claim filing.
2. Demonstrate understanding of the principles of Medical Law & Ethics including those related to privacy, scope-of-practice, communication, patient rights and the medical record.
3. Collect, process and analyze biological specimens.
4. Apply principles of safety, sterilization and disinfecting in all aspects of patient/office procedures.
5. Demonstrate professional conduct and interpersonal communication skills with patients, health care professionals and the public.
6. Demonstrate knowledge of clinical procedures and pharmacology administration in patient care in a medical practice.
7. Collaborate with other healthcare professionals in patient preparation or procedures.

## Admission Requirements

In addition to the general admissions requirements of the College, applicants to this program must have had the following:

**Biology with lab; student must meet ENG 101 or ENG 105, and MAT 100 prerequisites.**

## Pre-registration Requirements

Prior to enrollment in the MEA course, applicants of this program must have had the following:

- A physical exam performed by a qualified health care professional
- Proof of the following immunizations or titers:
  - Measles Mumps Rubella (MMR)
  - Hepatitis B Virus (HBV) - 3 doses
  - Adult Tetanus Purified Protein Derivative (PPD for TB)
  - Varicella titer for Chicken Pox
- Professional liability insurance is required.
- All students are advised to purchase their own Health/Accident Insurance
- CPR certification prior to the beginning of the fourth semester
- Mandatory background screening is required prior to participation in externship.

*Note: Students must provide own transportation to and from the externship sites. All MEA majors must follow the prescribed course sequence.*

# Medical Assistant (MEA)

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
BUS 150	Effective Customer Relations	3
BCA 120	Introduction to Computer Applications	3
BIO ____	Select <b>one</b> of the following:	4
	BIO 101 General Biology Lecture <b>and</b>	
	BIO 102 General Biology Lab	
	or	
	**BIO 115 Anatomy & Physiology I Lecture <b>and</b>	
	**BIO 116 Anatomy & Physiology I Lab	
MAT 101*	Business Math	3
MET 111	Medical Terminology I	3
LER 100	First Year Seminar for MEA	1
<b>Semester II</b>		
BIO ____	Select <b>one</b> of the following:	3
	BIO 105 Essentials of Anatomy and Physiology	
	**BIO 117 Anatomy and Physiology II Lecture <b>and</b>	(3)
	**BIO 118 Anatomy and Physiology II Lab	(1)
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
COM 100	Public Speaking	3
MEA 165	Medical Ethics and Law	3
<b>Semester III</b>		
MEA 205	Medical Office Administration & Electronic Health Records	3
MEA 221	Medical Clinical Procedures I Lab	2
MEA 222	Medical Clinical Procedures I Lecture	3
MEA 240	Essentials of Pharmacology for Medical Assistants	3
PSY 101	Introduction to Psychology	3
____	Elective: Humanities/Social Science	3
<b>Semester IV</b>		
MEA 210	Insurance Coding/Claims Processing	3
MEA 230	Advanced Medical Clinical Procedures II Lecture	3
MEA 231	Advanced Medical Clinical Procedures II Lab	2
MEA 266	Medical Assistant Externship (240 hours)	6
____	Writing course (see page 37-38)	3
<b>Total Credit Hour Requirements</b>		<b>63-64</b>

The BIO 115-118 series is the recommended choice for transfer to a bachelor degree program. Please note course prerequisites.

\*Course placement determined by assessment test scores and/or prior college course work.

# Medical Coding and Electronic Health Records (MCO)

**ALSO AVAILABLE  
100% ONLINE**

## Program Description

The Associate in Applied Science Degree in Medical Coding and Electronic Health Records is designed with a three-fold purpose: (1) to prepare graduates for entry-level positions relevant to healthcare provider services, (2) to prepare students for upper division coursework at universities and colleges where a Bachelor's Degree is desired, and (3) to respond to the growing demand of medical coding employees seeking to upgrade their skills and knowledge base for career advancement with the attainment of a college degree.

## Program Educational Outcomes

Upon completion the graduate should be prepared to:

1. Outline the responsibilities of a medical coder, describe the personal and professional ethics required for success in the profession and describe the career opportunities.
2. Describe the purpose and impact of the Healthcare Insurance Portability and Accountability Act (HIPAA) and explain how professionals can learn about changes to the laws and regulations that affect them.
3. Compare and contrast the major types of government and commercial insurance health plans, including Medicare, Medicaid, Health Maintenance Organization (HMO), Preferred Provider Organization (PPO) and Point-of-Service (PSO) plans.
4. Accurately apply CPT, ICD-10 and HCPCS coding guidelines to diagnoses, procedures and medical records using electronic health records software.
5. Calculate reimbursements using industry formulas.

## Online Program Priority Enrollment Deadline

The Medical coding and Electronic Health Records program is available online. The priority enrollment deadline for the online program is May 15, which means the application and requirements such as placement scores, transcripts from previously attended schools, tuition deposit must be received, and online orientation completed.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
BIO ____	Select <b>one</b> of the following sets: BIO 101 Intro to General Bio Lecture <b>and</b> BIO 102 Intro to General Bio Lab <b>or</b> BIO 115 Anatomy & Physiology I Lecture** <b>and</b> BIO 116 Anatomy & Physiology I Lab**	4
MET 111	Medical Terminology	3
ENG ____*	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
MCO 110	Health Information Technology I	3
COM 101	Interpersonal Communications	3
Semester II		
BIO ____	Select <b>one</b> of the following sets: BIO 105 Essentials of Anatomy & Physiology <b>or</b> BIO 117 Anatomy & Physiology Lecture II** <b>and</b> BIO 118 Anatomy & Physiology Lab II**	3 (3) (1)
ENG 220	Business Communications	3
MAT 101*	Business Math	3
PSY 101	Intro to Psychology	3
MCO 113	Health Information Technology II	2
Semester III		
MCO 125	CPT Coding	3
MCO 115	Health Information Technology III	2
MCO 121	ICD Coding	3
PSY 120	Psychology in the Workplace	3
____	Elective: Humanities/Social Science	3
BUS 110	Principles of Supervision	3
Semester IV		
MCO 134	Intermediate ICD Coding	3
MCO 150	Medical Specialties & Pathology	4
MCO 116	Health Care Statistics	2
MCO 136	Intermediate CPT Coding	3
MCO 299	Practicum	3
<b>Total Credit Hour Requirements</b>		<b>62-63</b>

\*Course placement determined by assessment test scores and/or prior college course work.

\*\*The BIO 115-118 series is the recommended sequence (but not required) for students interested in continuing their professional preparation in the field of Health Information Technology.

**ALSO AVAILABLE  
100% ONLINE**

# Medical Coding and Electronic Health Records Certificate (MCOCO)

## Program Description

The Certificate in Medical Coding and Electronic Health Records prepares the graduates of this program to perform specialized data entry, classification, and record keeping procedures related to medical diagnostic, treatment, billing, and insurance documentation. Graduates of this program are eligible to sit for the Certification Examination. Upon successful completion of the Certification Examination, the individual is eligible to become a Certified Professional Coder. Graduates of this program are prepared to work in various health-care settings, including hospitals, clinics, physician practices, surgery centers, long-term care facilities and home health agencies. Employment opportunities are also found in nontraditional health-care areas such as insurance companies, government agencies, computer software companies, as well as with consulting firms.

## Program Educational Outcomes

Upon completion the graduate is prepared to:

1. Apply industry standard coding guidelines to patient medical records using electronic health records software.
2. Outline the responsibilities of a medical coder, describe the personal and professional ethics required for success in the profession and describe the career opportunities.
3. Recognize factors that affect third-party reimbursement.
4. Describe the purpose and impact of the Healthcare Insurance Portability and Accountability Act (HIPAA).

## Certificate Requirements

Semester I		Credit Hours
MET 111	Medical Terminology	3
BIO ____	Select <b>one</b> of the following sets:	4
	BIO 101 Intro to General Bio Lecture <b>and</b>	
	BIO 102 Intro to General Bio Lab	
	<b>or</b>	
	BIO 115 Anatomy & Physiology I Lecture** <b>and</b>	
	BIO 116 Anatomy & Physiology I Lab**	
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MEA 210	Insurance Coding/Claim Processing	3
MCO 121	ICD Coding	3
<b>Semester II</b>		
BCA 120	Introduction to Computer Applications	3
MCO 150	Medical Specialties & Pathophysiology	4
MCO 125	CPT Coding	3
MAT 101*	Business Math	3
BIO ____	Select <b>one</b> of the following:	3
	BIO 105 Essentials of Anatomy & Physiology	
	<b>or</b>	
	BIO 117 Anatomy & Physiology Lecture II** <b>and</b>	(3)
	BIO 118 Anatomy & Physiology Lab II**	(1)
<b>Total Credit Hour Requirements</b>		<b>32-33</b>

\*Course placement determined by assessment test scores and/or prior college course work.

The BIO 115-118 series is the recommended sequence (but not required) for students interested in continuing their professional preparation in the field of Health Information Technology.



# Nursing (NUR)

## Program Description

The Associate Degree in Science Degree in Nursing prepares the student to become a registered nurse. Graduates are eligible to sit for National Counsel Licensing Exam for licensure as a Registered Professional Nurse. The Nursing Program is approved by the Maine State Board of Nursing 161 Capitol Street, 158 State house Station, Augusta ME 04222-0158 and accredited by the Accreditation Commission for Education in Nursing (ACEN; formerly known as the National League for Nursing Accreditation Commission), 3343 Peachtree Road NE, Suite 850 Atlanta, GA 30326; telephone 404-975-5000 ( <http://acenursing.org/> ).

All applicants should note that "The Maine State Board of Nursing may refuse to grant a license on the basis of criminal history record information relating to convictions denominated in Title 5, Chapter 341 subsection 5301 of the Maine Revised Statutes Annotated".

The curriculum blends general education courses with nursing courses to provide a sound theoretical and experiential background for nursing practice. Students' complete faculty led clinical rotations at healthcare affiliates throughout the nursing component of the program. These healthcare affiliates typically require background checks to determine if students have disqualifying criminal convictions, pending criminal charges and/or certain other experience. Students who cannot satisfy such a review cannot be placed clinically and will be unable to complete the program.

Nursing majors must follow the course sequences and should note that a minimum grade of C (with a satisfactory clinical grade) in each nursing course is required in order to progress from one nursing course to another. Students must adhere to the nursing program attendance requirements or it may result in dismissal from the program. Students may be allowed to repeat one nursing course by petitioning full faculty and dependent on full faculty vote and available space within course. Completion of all Nursing courses with a grade of C or better and a minimum GPA of 2.00 is required to graduate.

An LPN may seek an upgrade to an Associate Degree in Nursing. Admission criteria to the program must be met. Credit may be given for NUR 112 and NUR 121 based on licensure and work experience. Applicant must satisfy Semester I and II corequisite. LPN's may be required to repeat/take NUR 121 prior to second year courses.

## Career Opportunities

Graduates are prepared to work in structured health care settings such as hospitals and extended care facilities and pursue careers in medical/surgical, obstetrical, pediatric, geriatric, or psychiatric nursing. Graduates earning an associate degree may transfer into the Bachelor of Science in Nursing program.

## Program Educational Outcomes

1. The graduate is accountable for his/her own actions, serves as a positive role model, assumes ethical responsibility as member of the profession of nursing and practices within the Nurse Practice Act.

2. The graduate will use effective therapeutic and interpersonal communication skills in his/her practice of nursing.
3. The graduate will holistically evaluate patient needs through the collection, analysis and synthesis of data for the provision of patient care.
4. The graduate will generate safe and effective clinical judgments using critical thinking skills when providing care to individuals, families and groups of patients with complex health needs in a variety of settings.
5. The graduate will integrate all previous learning experiences to provide holistic caring interventions to patients of all ages with multiple complex needs.
6. The graduate will evaluate the effectiveness of teaching/ learning strategies and the achievement of patient learning outcomes for patients with complex needs.
7. The graduate will collaborate with the health care team members in a variety of settings.
8. The graduate will assume responsibility as a manager of care for a group of patients by establishing priorities for nursing care, use of resources, and through delegating aspects of nursing care to other health care workers.
9. The graduate will continue their education either formally through organized upper division classes, in-service education or independently utilizing nursing research and other professional resources.
10. The graduate evaluates current strategies and clinical processes to make practice decisions for quality outcomes for patients and healthcare systems.

## Selective Admission Requirements

1. Completion of a background check.
2. Demonstrate above average proficiency in reading and mathematics as evidenced by the standardized admissions test (TEAS).
3. Submit Visual Acuity exam results two months prior to the start of the first nursing course. Necessary: Visual acuity with corrective lenses to identify cyanosis, absence of respiratory movement in patients; and to read very fine, small print on medication containers, physician's orders, monitors and equipment calibrations.
4. Three months prior to the start of the first nursing course, the applicant must submit proof to the Nursing Program of the following:
  - **MMR: Measles, Mumps, Rubella**  
An official record of an immune titer must be provided for each
  - **HBV: Hepatitis B: 3 Doses**  
An official record of an immune titer must be provided following completion of the series.

# Nursing (NUR)

- **TD: Adult Tetanus and Pertussis (Tdap)**  
An official record of immunization within the past 10 years must be provided.
  - **PPD: Purified Protein Derivative (TB)**  
Annual testing is required. If applicant has not been tested within the past year, initial testing must consist of 2 tests not more than three weeks apart. Applicants with a history of a positive skin test should submit evidence of a yearly evaluation by a health care provider.
  - **Varicella (Chicken Pox)**  
An official record of an immune titer must be provided.
5. Prerequisites(s) for program admission for applicants applying directly from high school: Algebra I, Chemistry with laboratory, Biology with laboratory, completed application process and results of the TEAS Exam by February 28th each year for competitive review process.
  6. In addition, other yearly tests and/or immunizations may be required.
  7. Submit other medical or educational documentation as requested by the Nursing Department.

## Nursing Specific Application Information

Complete the application process by February 28th of the anticipated enrollment year. It is the applicant's responsibility to submit the required documentation. Once an applicant's file is deemed complete, the applicant is invited to an informal meeting with the Department Chairperson for the purpose of reviewing the program and selecting the appropriate course of study. Upon admission to the program, the student is assigned a nursing faculty advisor.

## Admissions and Registration Condition

Due to compliance with the standards of the Accreditation Commission for Education in Nursing and the Maine State Board of Nursing, prospective nursing students should be aware that admission and program changes may occur.

## Non-Academic Requirements for the Nursing Major

1. Be certified in cardiopulmonary resuscitation (CPR - health care provider level) prior to the start of the first nursing course. This certification must be current through out the program.
2. Purchase the college professional liability insurance prior to the start of the first nursing course.
3. Nursing majors must purchase uniforms before entry into the nursing courses.
4. Clinical learning experiences take place in a variety of settings and geographic locations. Nursing majors must therefore provide their own transportation to and from the clinical settings.

**High school prerequisite(s) for program admission: Algebra I, Chemistry with laboratory, Biology with laboratory, completed application process and results of the TEAS Exam by February 28th each year for competitive review process.**

## Associate in Science Degree Requirements

Arts and Sciences (General Education) courses supportive to the Nursing major must be taken prior to, or concurrent with nursing courses as outlined in the curriculum design. Nursing courses must be taken in the sequence listed. Students must achieve a minimum grade of C in all nursing (NUR) courses and a satisfactory clinical grade in each nursing course in order to progress from one nursing course to another.

Semester I		Credit Hours
BIO 115	Anatomy and Physiology I Lecture	3
BIO 116	Anatomy and Physiology I Lab	1
ENG ____*	Select <u>one</u> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3
NUR 112	Foundations of Nursing/Nursing Care of Adults	9
NUR 115	Medication Preparation, Administration, and Dosage Calculations	1

## Special Requirement

NUR 116 Role Transition (3 credits) or NUR 121 Nursing Across the Lifespan II (10 credits) may be required of Licensed Practical Nursing prior to second year nursing courses.

Semester II		
BIO 117	Anatomy and Physiology II Lecture	3
BIO 118	Anatomy and Physiology II Lab	1
NUR 121	Nursing Across the Life Span I	10
PSY 101	Introduction to Psychology	3

Semester III		
BIO 211	Microbiology Lecture	3
BIO 212	Microbiology Lab	1
NUR 212	Nursing Across the Life Span II	9
PSY 111	Developmental Psychology	3

Semester IV		
NUR 213	Nursing Across the Life Span III	9
COM 100	Public Speaking	3
____	Elective: Humanities	3
MAT ____	MAT 100 Intermediate Algebra or higher (excluding MAT 101, 102, 105)	3

<b>Total Credit Hour Requirements</b>	<b>68</b>
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# Physical Fitness Specialist (PHF)

## Program Description

The Associate in Applied Science Degree in Physical Fitness Specialist is designed to meet the rising demands in the growth of health and wellness field and to pursue opportunities in the job market of the medical industry. Students will be required to sit for the American College of Sports Medicine (ACSM) exam upon completion of the degree.

## Career Opportunities

Graduates from this program will be able to develop two individual pathways: 1) enter the work force as a Personal Fitness Specialist in a variety of settings working with individuals on health, wellness, and independent fitness programs; 2) transfer into a bachelor degree program in the Life/ Exercise Sciences such as physical education, athletic training, community health education, Community health education, strength and conditioning and other exercise science disciplines.

## Special Admission Requirements

In addition to meeting the general admission requirements of the College, applicants to this program must be in exceptionally good health due to the physical requirements of the program. Criminal background checks and/or liability insurance may be required before the practicum experience and/or may be required by a potential employer.

## Program Educational Outcomes

Upon completion the graduate should be able to:

1. Discuss the physiology and mechanics of human movement related to the major components of physical fitness, health and sports.
2. Demonstrate a strong foundational knowledge of the human body systems and the acute and chronic adaptations on the body through modalities, exercise and lifestyle changes.
3. Define the psychological principles critical to health/wellness behavior changes.
4. Describe, discuss, compare/contrast and demonstrate the role of the Physical Fitness Specialist as a member of the healthcare team in modern healthcare.
5. Assess dietary habits and recommend developmental and maintenance interventions.
6. Develop safe and effective recommendations and provide lifestyle changes to support clients or teams through needs inventory, goals and specific objectives.
7. Recognize, manage and provide preventive practices for basic musculoskeletal injuries through proper understanding of evaluation of movement, range of motion and muscle imbalances of the human body.
8. Demonstrate ACSM and CSCS professional standards in the field of exercise science and client care.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____ *	Select <b>one</b> of the following: ENG 101 College Writing ENG 105 College Writing Seminar	3 (4)
BIO ____	Select <b>one</b> of the following sets: BIO 101 Intro to General Bio Lecture <b>and</b> BIO 102 Intro to General Bio Lab <b>or</b> BIO 115 Anatomy & Physiology I Lecture** <b>and</b> BIO 116 Anatomy & Physiology I Lab**	4
PSY 101	Introduction to Psychology	3
COM 100	Public Speaking	3
LER 100	First Year Seminar for PHF	1
Semester II		
BIO ____	Select <b>one</b> of the following: BIO 105 Essentials of Anatomy & Physiology <b>or</b> BIO 117 Anatomy & Physiology Lecture II** <b>and</b> BIO 118 Anatomy & Physiology Lab II**	3 (3) (1)
BIO 121	Nutrition	3
MAT ____ *	Select <b>one</b> of the following: MAT 100 Intermediate Algebra* MAT 101 Business Math	3
PHF 155	Introduction to Exercise Science	4
PHF 150	Methods of Life Style Coaching	3
Semester III		
PHF 122	Kinesiology	3
____ ____	Elective: PSY/SOC	3
PHF 204	Nutrition to Improve Human Performance	3
PHF 207	Introduction to Injury Prevention & Management	3
PHF 197	Field Experience	2
Semester IV		
PHI 111	Introduction to Ethics	3
PHF 251	Methods of Teaching Group Exercise	3
PHF 208	Exercise Test and Prescription	4
ENG ____	Select <b>one</b> of the following: ENG 220 Business Communication ENG 201 Technical Writing	3
PHF 299	Practicum	4
<b>Total Credit Hour Requirements</b>		<b>61-62</b>

\*Course placement determined by assessment test scores and/or prior college course work. \*\*The BIO 115-118 series is the recommended sequence for students interested in transferring to a four-year institution.

# Plumbing & Heating Technology (PHT)

## Program Description

The Associate in Applied Science Degree in Plumbing & Heating Technology (A.A.S.) will prepare students for a career in the plumbing and heating industry with skills to assist with the installation and repair of systems in residential and commercial settings. Students will gain knowledge of state codes and requirements.

Graduates are eligible to acquire the State of Maine Journeyman 1 & 2 Oils - up to 15 GPH licensure and eligible to acquire the CETP certifications necessary for Maine licensure as a propane and natural gas technician.

## Career Opportunities

Graduates are qualified for employment with heating contractors, utility companies and fuel oil companies, in maintenance positions or as sales personnel. Additional experience may provide graduates with opportunities as managers, supervisors, or operators of their own business.

## Program Educational Outcomes

Upon completion of the Associate in Applied Science in Plumbing and Heating Technology the graduate will be able to:

1. Describe basic tools used for standard residential and light-commercial plumbing and heating projects.
2. Identify and explain plumbing and heating methods, calculations, materials and systems.
3. Identify the local, state and national codes required for compliance in the design, installation and repair of plumbing and heating systems.
4. Differentiate the installation procedures for various types of heating systems.
5. Describe the methods for completing plumbing heating service work, performing calculations and safe work practices.
6. Diagnose and repair plumbing and heating systems.

## Non-Academic Requirements

Students must be able to lift 50 pounds to shoulder height, crawl in small spaces and climb a ladder and equipment using three points of contact.

Students will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from acceptance into the program. The applicant may be denied acceptance if a she or he has a disqualifying conviction as defined by the Maine Plumbers' Examining Board. Such a conviction prohibits a person from obtaining licensure as a plumber in the State of Maine.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____ *	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 104*	Technical Mathematics	3
PHT 103	Plumbing Technology I	5
OHS ____	Select <b>one</b> of the following:	
	OHS 102 Intro to Occupational H&S	1
	OHS 115 Construction Health & Safety	(3)
PHT 140	Print Reading & Interpretation	2
<b>Semester II</b>		
PHT 100	Plumbing Code	3
PHT 125	Plumbing Technology II	5
PHT 130	Wells, Pumps and Drainage	3
COM ____	Select <b>one</b> of the following:	2
	COM 100 Public Speaking	3
	COM 101 Interpersonal Communication	
____	Elective: General Education	3
<b>Semester III</b>		
PHT 207	Heating I	4
PHT 209	Propane and Natural Gas I	4
PHT 225	Maine Oil/Solid Fuel Code	1
ENG ____	Select <b>one</b> of the following:	2
	ENG 201 Technical Writing	3
	ENG 220 Business Communication	
____	Elective: Math or Science 100 or higher	3-4
<b>Semester IV</b>		
PHT 257	Heating II	4
PHT 259	Propane and Natural Gas II	4
PHI 111	Introduction to Ethics	3
PHT 297	Externship	3
<b>Total Credit Hour Requirements</b>		<b>60-64</b>

\*Course placement determined by assessment test scores and/or prior college course work.

# Plumbing Certificate (PHT)

## Program Description

The Certificate in Plumbing will prepare students to sit for the journeyman-in-training licensing exam through the Maine Plumbers' Examining Board. The Maine Plumber's Examining Board may issue a journeyman-in-training license to a person who provides satisfactory evidence of completion of a plumbing course consisting of one year or two semesters at a board-approved technical college or community college.

## Career Opportunities

Graduates are qualified for employment with heating contractors, utility companies and fuel oil companies, in maintenance positions or as sales personnel. Additional experience may provide graduates with opportunities as managers, supervisors, or operators of their own business.

## Program Educational Outcomes

Upon completion of the Certificate in Plumbing Technology the graduate will be able to:

1. Describe basic tools used for standard residential and light-commercial plumbing projects
2. Identify and explain plumbing methods, calculations, materials and systems
3. Demonstrate interpretation of safety rules, state codes and regulations relevant to the industry
4. Explain the components and assembly techniques required for standard pipe and water supply systems
5. Diagnose and repair plumbing systems

## Non-Academic Requirements

Students must be able to lift 50 pounds to shoulder height, crawl in small spaces and climb a ladder and equipment using three points of contact.

Students will be subject to a criminal background check. A criminal conviction will not automatically prevent a person from acceptance into the program. The applicant would be denied acceptance if a she or he has a disqualifying conviction as defined by the Maine Plumbers' Examining Board. Such a conviction prohibits a person from obtaining licensure as a plumber in the State of Maine.

## Certificate Requirements

Semester I		Credit Hours
ENG ____*	Select <b>one</b> of the following:	3
	ENG 100 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 104*	Technical Mathematics	3
PHT 140	Print Reading and Interpretation	2
OHS ____	Select <b>one</b> of the following:	1
	OHS 102 Intro to Occupational H&S	1
	OHS 115 Construction Health & Safety	(3)
PHT 103	Plumbing Technology I	5
<b>Semester II</b>		
PHT 125	Plumbing Technology II	5
PHT 130	Wells, Pumps and Drainage	3
PHT 100	Plumbing Code	3
COM ____	Select <b>one</b> of the following:	2
	COM 100 Public Speaking	3
	COM 101 Interpersonal Communication	
____	Elective: General Education	3
<b>Total Credit Hour Requirements</b>		<b>31-35</b>

\*Course placement determined by assessment test scores and/or prior college course work.



# Precision Machining Technology (PMT)

## Program Description

The Associate in Applied Science Degree in Precision Machining Technology offers a broad training experience that prepares individuals for employment in the precision manufacturing industry. Students learn to operate a variety of conventional machine tools, computer numerical control (CNC) machines, read and analyze engineering drawings and use precision measuring and inspection instruments. The new computer automated manufacturing (CAM) lab uses Mastercam software to program the CNC equipment. Students develop the skills required for employment in this highly technical field.

Currently there are two PMT program options: Associate in Applied Science and Certificate.

## Career Opportunities

Graduates of the Precision Machining Program are employed as machinists, CNC machinists, tool and die makers, process quality control technicians, quality control inspectors, machine assemblers, machine tool designers, CNC programmers or field service representatives.

## Program Educational Outcomes

Upon completion of the AAS the graduate is prepared to:

1. Demonstrate entry level skills.
2. Interpret engineering drawings utilizing current standards set by ANSI.
3. Produce a part that meets print specifications.
4. Apply occupational health and safety standards.

## Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG ____*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
MAT 104*	Technical Mathematics	3
PMT 103	Print Reading and Sketching	3
PMT 111	Introduction to Lathes	2
PMT 112	Introduction to Manual Milling	2
PMT 118	Introduction to CNC Milling	2
PMT 119	Introduction to CNC Lathes	2
<b>Semester II</b>		
ENG 201	Technical Writing	3
MAT ____*	Level 100 or higher	3
PMT 121	Introduction to Threading Processes	2
PMT 122	Work Holding Methods for Milling	2
PMT 124	Applied Computer Numerical Control	2
PMT 125	CNC Turning Methods	2
OHS 102	OHS for General Industry	1
<b>Semester III</b>		
PMT 209	Geometric Dimensioning and Tolerancing	3
PMT 240	2-D Cam Programming	2
PMT 211	Advanced Threading Processes	2
PMT 212	Circular CNC Milling Processes	2
PMT 214	Advanced Computer Numerical Control	2
PMT 228	Metallurgy	1
____	Elective: Humanities/Social Science	3
<b>Semester IV</b>		
PMT 217	Introduction to Toolmaking	2
PMT 221	Advanced CNC Turning Processes	2
PMT 229	Advanced CNC Part II	2
PMT 230	Introduction to CMM's	2
____	Elective: Humanities/Social Science	3
____	Elective: Humanities/Social Science	3
<b>Total Credit Hour Requirements</b>		<b>61-62</b>

\*Course placement determined by assessment test scores and/or prior college course work.



# Precision Machining Technology Certificate (PMT)

<b><i>Certificate Requirements</i></b>		
<b>Semester I</b>		<b>Credit Hours</b>
MAT 104*	Technical Mathematics	3
PMT 103	Print Reading and Sketching	3
PMT 111	Introduction to Lathes	2
PMT 112	Introduction to Manual Milling	2
PMT 118	Introduction to CNC Milling	2
PMT 119	Introduction to CNC Turning	2
<b>Semester II</b>		
— —	Select <b>one</b> of the following:	3
	BCA 120 Introduction to Computer Applications	
	PMT 240 Introduction to MasterCam	(2)
ENG —*	Select <b>one</b> of the following:	3
	ENG 101 College Writing	
	ENG 105 College Writing Seminar	(4)
PMT 121	Introduction to Threading Processes	2
PMT 122	Work Holding Methods for Milling	2
PMT 124	Applied Computer Numerical Control	2
PMT 125	CNC Turning Methods	2
OHS 102	OHS for General Industry	1
<b>Total Credit Hour Requirements</b>		<b>28-30</b>

\*Course placement determined by assessment test scores and/or prior college course work.

# Precision Machining Technology Advanced Certificate

## Program Description

The Advanced Certificate in Precision Machining Technology offers advanced machining theories and applications required to set-up and run multi-axis computer numeric control (CNC) equipment. Programming, set-up, and operations of 4 axis vertical and horizontal milling centers, 5 axis vertical milling centers, and live tooling lathes will be covered. Students will be exposed to the advanced inspection methods that are required to inspect parts made on these machines. The certificate will prepare students for advanced level positions in the machining field related to multi-axis CNC equipment.

## Program Educational Outcomes

Upon completion of the Advanced Certificate in Precision Machining Technology, the student is prepared to:

1. Program 3-D, 4 and 5-axis, horizontal and vertical, and live tooling equipment.
2. Read and interpret blueprints.
3. Describe and demonstrate inspection process.
4. Manage tool selection based on job variables.
5. Prepare cutting tool calculations from manufacturer's book recommendations.
6. Set up and operate CNC and live tooling machines.
7. Describe function of a coordinate measuring machine.
8. Inspect, adjust and complete a machine-job package.

## Program Admission Requirements

Students must have an A.A.S. or higher degree in machining or equivalent professional credentials as approved by the Academic Dean.

## Advanced Precision Machining (PMT-X) Certificate Requirements

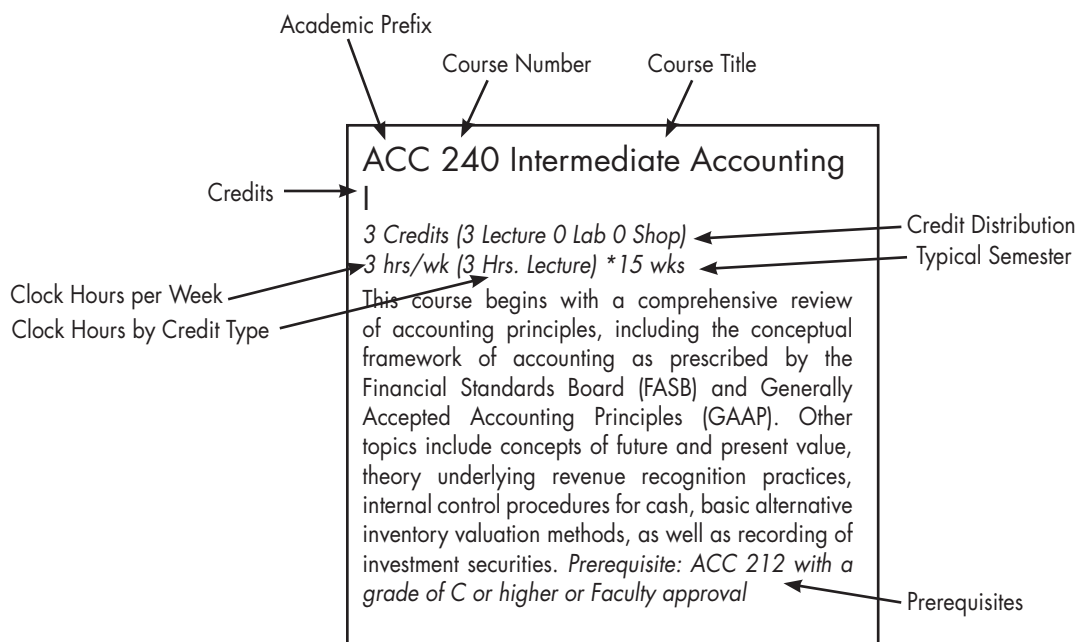
Semester I		Credit Hours
PMT 276	Advanced Cam Programming	2
PMT 270	Intro to Solid Modeling	3
PMT 281	3-D Surface Milling	3
Semester II		
PMT 282	Multi Axis Cam Programming	2
PMT 285	4 and 5 Axis CNC Milling	3
PMT 279	Multi Axis CNC Lathes	3
<b>Total Credit Hour Requirements</b>		<b>16</b>

# Course Descriptions

The course listings that follow include descriptions of courses offered by the College to meet curricula requirements. Descriptions are general in nature and are not intended to include all topics which may be part of the course and, in some cases, items in the descriptions may be omitted from the course. Revisions are sometimes necessary to meet changes in course or program objectives.

## Explanation of Course Description Codes

*(The clock hour distributions contained in this catalog are based on a "typical" 15 week semester. Consult the current schedule for individual course meeting times. The College reserves the right to modify these and all other elements of a course at its discretion).*



**Lecture Hours:** the number of hours per week a particular course meets in an instructor directed classroom situation.

**Lab or Studio Hours:** the number of hours per week a particular course meets in a student and equipment laboratory situation. Field work and small group discussions may also be included in these hours.

**Shop or Clinical or Field Experience or Practicum Internship or Externship Hours:** the number of hours per week a particular course meets and where students are in a practical, occupational or applied learning situation.

**Credit Hours:** the number of credit hours awarded to the student who successfully completes a course.

**Definition of Units of Credit:** Central Maine Community College follows the New England Commission of Higher Educations' definition of the credit hour:

Federal regulation defines a credit hour as an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutional established equivalence that reasonably approximates not less than –

(1) One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or

(2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

**Prerequisite:** any course work that must be completed before the student is eligible to register for a course

**Co-requisite:** any course which must be taken during the same semester.

# Course Descriptions

## Accounting (ACC)

### ACC 208 Accounting Concepts

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a one-semester course for non-accounting majors. It is designed to give students a basic foundation in financial accounting and the language of business. Key topics include the correct classification and recording of accounting transactions, preparation of basic financial statements, and analysis and interpretation of financial data. Students will use computer software in and out of class for some problem solving. Note: This course cannot be taken for credit for Accounting majors.

### ACC 210 Principles of Accounting I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a beginning accounting course that introduces the student to basic financial statements and the double-entry accounting system. The course includes methods and procedures such as merchandising operations, internal control, accounting systems, accounts and notes receivable and accounting for merchandise inventory, and long-term assets and depreciation methods.

### ACC 212 Principles of Accounting II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a continuation of ACC 210. Topics covered will include partnerships, corporations, long-term liabilities, investments, cash flow, and financial statement analysis. *Prerequisite:* ACC 210 with a grade of C or higher.

### ACC 240 Intermediate Accounting I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course begins with a comprehensive review of accounting principles, including the conceptual framework of accounting as prescribed by the Financial Standards Board (FASB) and Generally Accepted Accounting Principles (GAAP). Other topics include concepts of future and present value, theory underlying revenue recognition practices, internal control procedures for cash, basic alternative

inventory valuation methods, as well as recording of investment securities. *Prerequisite:* ACC 212 with a grade of C or higher.

### ACC 242 Intermediate Accounting II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course continues the intensive study of financial accounting including the valuation of long-term liabilities and accounting for income taxes, leases, and pensions. Other topics are forming a corporation, recording various types of dividends, computing earnings per share, as well as the preparation of the statement of cash flows. Application of accounting principles in recording, reporting, and disclosing accounting changes and prior period adjustments are also included. *Prerequisite:* ACC 240 with a grade of C or higher.

### ACC 244 Computerized Accounting

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course utilizes QuickBooks integrated accounting software whereby both service and merchandising businesses are set up from inception. Depending upon the particular business, the following topics will be covered throughout the course: general ledger, accounts payable, accounts receivable, payroll, inventory, job costing, importing and exporting of files, and other advanced QuickBooks applications. The necessity of an audit trail will be emphasized.

### ACC 248 Payroll Accounting

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to introduce students to the concepts and processes of payroll administration. Topics include the legal issues surrounding payroll, salaries/wages and overtime, payroll withholdings and payroll taxes, and journalizing and analyzing payroll transactions. Students will also learn extensively about national automated payroll system providers such as ADP, PayChex and Ceridian.

### ACC 265 Managerial Accounting

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an introduction to internal management accounting. Emphasis is on the use of accounting information in controlling the operations of the enterprise. *Prerequisite:* ACC 240.

## American Sign Language (ASL)

### ASL 101 American Sign Language I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces students to American Sign Language (ASL), including an examination of the cultural values and rules of behavior of the Deaf community in the United States. In developing conversational competence in ASL, the course covers the following: sign vocabulary, finger spelling, manual numbering system, basic sentence patterns of ASL, correct use of idioms, receptive and expressive language activities; and Deaf/deaf culture in North America. *Prerequisite:* Fluency in English strongly recommended.

### ASL 102 American Sign Language II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course continues the study and practice of basic skills initiated in ASL 101. Emphasizes comprehending, signing, developing receptive skills, and using the glossing system for written ASL. Interactive and extracurricular activities increase understanding of ASL and the deaf culture. *Prerequisite:* ASL 101 or equivalent.

## Architectural and Civil Engineering (ACE)

### ACE 110 Construction and Materials

3 Credits (1 Hr. Lecture 2 Lab 0 Shop)  
5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Lab) \*15 wks

Students will study two story commercial building design, steel masonry veneer, rain screen construction with expanded discussion on code requirements, ADA open plan space design, integration of related building systems, assemblies and

# Course Descriptions

components and discussion on the various materials being employed are discussed. AutoCAD architecture and REVIT basics and expand on the use of Excel spreadsheets. *Prerequisite:* ACE 113.

## **ACE 113 Architecture and Design**

*3 Credits (1 Lecture 2 Lab 0 Shop)*  
*5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Lab) \*15 wks*

Students will research design and construction processes, materials, and methods to design a commercial wood frame building and its components. The student will be introduced to basic drafting and presentation techniques utilized by the A/E industry utilizing CAD within a "hands-on" approach for CAD training for the creation of construction documents. *Prerequisites:* Knowledge of basic computer skills. *Co-requisite:* CAD 110.

## **ACE121 Structures I**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The student is introduced to the strength of materials by determining internal stresses of basic structural members and the computation of reactions and bending moments of beams and girders. Emphasis is on the design and selection of statically determinate structures of timber. *Prerequisite:* ACE 113. *Corequisite:* PHY 111 and 122.

## **ACE 122 Structures II**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course is a continuation of ACE 121. The student is introduced to structural steel design, determining internal stresses from bending moments. Emphasis is on the design and selection of statically determinate structural steel members. *Prerequisite:* ACE 121.

## **ACE 131 Surveying I**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hr. Lecture) \*15 wks*

This course is an introduction to surveying fundamentals. The course will cover the history, principles, applications, equipment and use, computations, field and office practice. Various methods for collecting field measurements related to boundary, topographical and construction related data will be utilized. Students will integrate the

use of CAD related software and methods of presentation with field data towards the creation of industry standard documents. This is a studio/field lab course. *Corequisite:* ACE 234.

## **ACE 132 Surveying II**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hr. Lecture) \*15 wks*

This course is a continuation of ACE 131. Students will expand their knowledge and use of various types of equipment, methods, and applications. Methods of measurement and computation will be introduced to solve; distance, area, volume, and interpolations. Students will integrate related field and office practices. Data will be developed to create presentations for boundaries, ROW/easements, highway curves, topographic plans, grading and contour modeling. This is a studio/field lab course. *Prerequisites:* ACE 131, ACE 234. *Corequisites:* MAT 135.

## **ACE 155 Residential Site Design**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*5 Hrs/Wk (1 Hrs. Lecture 4 Hrs. Lab) \*15 wks*

This is an introduction to residential site design and single lot residential sites with associated access and roads / traveled ways. Students will Integrate theory of architecture with functional (user needs, building, topography, utilities, drainage, screening/landscaping, vehicle/pedestrian/play/access design parameters and traffic controls), environmental (sun, wind, water, climate, sustainability) and regulatory (ordinance, codes) constraints towards the development of design parameters in creating various residential sites. Students will expand their use of CAD related software, creation of models and methods of presentation to create subject related industry standard documents. *Corequisite:* CAD 110.

## **ACE 165 Commercial Building Design**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

Students will design a commercial building and its related site utilizing REVIT and CAD/BIM related software. The design will include but not be limited to the various stages of the design process from predesign

to construction documentation, researching of; materials, methods, construction techniques, assemblies, creation of advanced detailing and annotation towards the creation of construction level plans sections, elevations, details and schedules within various design disciplines consistent with industry standard Construction documents.

Students will expand their use of CAD / BIM related software, creation of models and methods of presentation to create subject related industry standard documents. *Prerequisite:* ACE 110.

## **ACE 204 Building Systems**

*3 Credits (1 Lecture 20 Lab 0 Shop)*  
*5 Hrs/Wk(1 Hrs. Lecture 4 Hrs. Lab)\*15 wks*

This course introduces plumbing, heating, air conditioning and electrical systems for building applications. Students will design and layout basic building systems for sample residential and commercial building applications. The course will introduce the student to the design drawing process through CAD/BIM related software. *Prerequisite:* ACE 239.

## **ACE 225 Commercial Site Design**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk(3 Hrs. Lecture)\*15 wks*

This is a continuation of ACE 155 Residential Site Design expanding into commercial site design as it relates to residential and commercial subdivisions and single lot commercial sites with associated roads / traveled ways. Expanded focus on design principals with functional (user needs, topography, utilities, drainage, screening/landscaping, vehicle/pedestrian design parameters and traffic controls), environmental (sun, wind, water, climate, sustainability) and regulatory (ordinance, codes) constraints towards the development of design parameters in creating various commercial sites. Students will expand their use of CAD related software with the introduction of civil site design software, creation of models and methods of presentation to create subject related industry standard documents. *Prerequisites:* ACE 155.



# Course Descriptions

## ACE 234 Legal Aspects of Surveying

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hr. Lecture) \*15 wks

This course introduces the student to the legal system as it relates to the field of surveying, boundary law, land use regulations, terms and definitions, deeds research and analysis. Students will expand their use of CAD and integrate office practices. They will also develop various subdivisions, parcel land type plans and related deed documents. This is a studio/field lab course. *Corequisite: ACE 131.*

## ACE 239 Applied Engineering Science

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students will be introduced to applied physics through its application in designing a building, site mechanical systems, the buildings impact on the environment, and how to integrate physics related elements for green & sustainable architecture. Students will research, evaluate and prepare applied physics based on building system calculations for coordination with their related building systems, CAD design in ACE 204 for plumbing, heating, ventilation, air conditioning and fire protection systems. Additionally, students will integrate sustainable design initiatives with an emphasis on sustainability and impact on the environment. *Prerequisite: ACE 110.*

## ACE 268 Trends in Architectural & Civil Engineering

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will introduce the student to special topics related to current Architectural and Civil Engineering (ACE) industry trends. Industry trends may include: planning, design, presentation, techniques, materials and methods, administration practices, and emerging software and equipment technologies.

## ACE 274 Project Management

3 Credits (1 Lecture 2 Lab 0 Shop)

5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Lab) \*15 wks

Students are introduced to the construction project management process as it

related to the project representative/technologist. Students will research areas of the design and construction operations phase as it relates to construction administration tasks, techniques, methods and management deliveries, sequence of construction, scheduling, estimating, safety, documentation and recording. Students will be introduced to industry related CPM/Network for construction scheduling and estimating software, and participate in teamwork related scheduling/estimating projects. *Prerequisites: ACE 165, 225 and MAT 105 or higher.*

## ACE 285 Civil Site Engineering

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is an advanced level CAD course utilizing surveying field data within Carlson Surv CE. Students will create surveying industry standard related site, parcel, topographic and construction layout plans and related documents. This is a studio/field lab course. *Prerequisites: ACE 131, ACE 234. Corequisite: ACE 132.*

## ACE 297 Internship

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course involves ACE students, through departmental approval, an opportunity for future employment, for assessment of prior learning and lifelong objectives, applying knowledge and analysis in a professional, supervised and documented settings within an on the job internship. *Prerequisite: 4th semester Senior Standing; Departmental approval.*

## ACE 298 Thesis - Capstone

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is a senior standing course for the assessment of prior learning and lifelong learning objectives. Students will develop a complete design of an architectural and civil engineering related project that embodies prior course learning, integration of related systems, disciplines and concepts and elements of self-directed study. The student will present the final design which will include but not be limited to, research, conceptual to final design concepts and their integration with related systems and

disciplines, typical construction related drawings, sample boards, renderings and architectural models. Students will be required to present before a select group of design professionals, faculty and fellow classmates. *Prerequisite: Senior standing for semester IV.*

## Anthropology (ANT)

### ANT 101 Introduction to Cultural Anthropology

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hr. Lecture) \*15 wks

This course introduces students to fundamental practices, research methods, theories and finding in Cultural Anthropology. Anthropology, as a Social Science, is concerned with learning about people in distinct cultures. Cultural Anthropology builds research and theory through interviews, observation and data gathering that generate new knowledge about a cultural group's values and behavior. Students will construct and practice participant observation, key informant selecting and interviewing techniques to explore local "cultures".

## Art (ART)

### ART 101 Introduction to 2-D Design

3 Credits (1 Lecture 2 Studio 0 Shop)

5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Studio)

\*15 wks

This introductory course deals with the basics of design on a two dimensional surface: line, shape, space, color, texture, form and value. Emphasis is placed on general design concepts and vocabulary, conceptual thinking, design process, application, and observational skills. This course is divided into a series of projects in several media, dealing with specific design principles and elements, and employs workshops and outside assignments to help students create and evaluate those projects. No previous art experience necessary.



# Course Descriptions

## ART 102 Principles of 3-D Design

3 Credits (1 Lecture 2 Studio 0 Shop)  
5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Studio)  
\*15 wks

This course will emphasize theoretical and practical problem solving experience relating to the elements of art and the principles of design in the context of 3-D form creation. The course employs lecture, in-class workshops, and outside assignments to help students create and evaluate a variety of problem solving 3-D projects that involve mass, volume, closed and open form, plane, texture, multiples, and site-specific installation.

## ART 103 Drawing I

3 Credits (1 Lecture 2 Studio 0 Shop)  
5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Studio)  
\*15 wks

Drawing from nature, still life and the model with an emphasis on accurate observation and recording. The role of drawing in visual communication and creative exploration will also be emphasized.

## ART 110 Art History, Renaissance to Contemporary

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hr. Lecture) \*15 wks

This course offers an overview of major artists, artistic movements, periods, techniques, and styles in Europe and North America. Students will participate in the course as art historians and learn to recognize key styles, themes, and issues. Students will also explore how the arts are influenced by and relate to the social, historical, cultural, and political events. Additionally, students will develop their analytical thinking and writing skills. The material will be presented through slides, lectures, discussions, and readings. *Prerequisites:* SAT ERW Score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better of Department Chair approval.

## ART 125 Twentieth Century American Crafts

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hr. Lecture) \*15 wks

This survey course follows the growth of American crafts from the late 1800's to the

present. Emphasis is placed on the relationship between period stylistic trends in craft, the arts, architecture and larger societal influences. The overall world historical context and its relationship to and influence on American craft will be explored. The course is organized around a series of slide lectures and class discussions. The research paper will allow the student to explore areas of personal interest within the bounds of American craft.

## ART 150 Approaches to Art

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hr. Lecture) \*15 wks

The overall purpose of this course is to provide the student with a basic understanding of the visual arts. The course deals with the nature of art, the evaluation of art, and the principles, processes, and materials of art. Specifically, we examine the formal elements of design and look at a wide variety of both two and three dimensional art to learn about the process and tools involved in art creation.

## Astronomy (AST)

### AST 101 Astronomy

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course covers fundamentals of astronomy. Topics include the solar system and earth's place in it, stars, galaxies, and concepts of the universe. Also covered are telescopes, spacecraft, and other tools used to study distant objects. While there is no math prerequisite, math concepts are used in describing models, and students will be expected to solve problems using arithmetic and simple algebra concepts.

## Automotive Technology (AUT)

Automotive Technology core includes AUT 110, AUT 120, AUT 150, AUT 170 and AUT 200.

## AUT 100 Intro to Automotive Technology

1 Credit (.5 Lecture 0 Lab .5 shop)  
2 Hrs/Wk (.5 Hr. Lecture 1.5 Hrs. Shop)  
\*2 wks

This is the first course of instruction for Automotive Technology students. The course

deals with shop safety, tools and procedures related to automotive technology. Safety and health in the workplace along with a look at personal lifestyle will be discussed. Hand tools, power tools, torch operation, battery boosting and charging will be covered.

## AUT 110 Brakes

2 Credits (1 Lecture 1 Lab 0 Shop)  
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab)  
\*6 or 15 wks

Class may be offered as a six week course doubling the time in lecture and lab. This course teaches the theory of hydraulics, mechanical advantage and all types of brake systems with practical instructions in testing and servicing car and light truck brakes. Laws from the Maine State Inspection Manual pertaining to brakes are presented. *Prerequisite:* AUT 100.

## AUT 120 Suspension and Alignment

2 Credits (1 Lecture 1 Lab 0 Shop)  
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab)  
\*6 or 15 wks

Class may be offered as a six week course doubling the time in lecture and lab. This course teaches the theory and operation of the suspension systems of modern vehicles with practical experiences in analyzing problems and replacement of worn parts. Included will be the study of front and rear wheel alignment and wheel balance. *Prerequisite:* AUT 100.

## AUT 130 Engine Repair I

1 Credit (1 Lecture 0 Lab 0 Shop)  
1 Hrs/Wk (1 Hr. Lecture) \*7 wks

This course teaches the basic construction of modern automotive engines. The theory, operation, identification and location of all engine system components will be studied. *Prerequisite:* AUT Core.

## AUT 131 Engine Repair Lab

3 Credits (.75 Lecture 0 Lab 2.25 Shop)  
7.5 Hrs/Wk (.75 Hrs Lecture 6.75 Hrs. Shop) \*7 wks

This lab will provide the opportunity for students to diagnosis and repair all engine system components. The systems will include but not be limited: cylinder heads, valve train, engine block, crankcase, cooling passages and lubrication. The repair section of this unit will require students to remove,

# Course Descriptions

disassemble, reassemble and reinstall a functional engine. *Corequisite:* AUT 130. *Prerequisite:* AUT Core.

## **AUT 150 Electrical Systems I**

3 Credits (2 Lecture 0 Lab 1 Shop)  
5 Hrs/Wk (2 Hrs. Lecture 3 Hrs. Shop)  
\*6 or 15 wks

Class may be offered as a six week course doubling the time in lecture and lab. This course is the first in the electrical series covering the theory and fundamentals of electricity. The principles and procedures for servicing batteries, starters and charging systems using standard test equipment will be covered. A comprehensive study of these systems will be performed with testing both on and off the vehicle. *Prerequisite:* AUT 100.

## **AUT 152 Engine Repair I**

5 Credits (2 Lecture 0 Lab 3 Shop)  
20 Hrs/Wk (4 Hrs. Lecture 0 Hrs. Lab 16 Hrs Shop) 8 wks

This course teaches the basic construction of modern automotive engines. The theory, operation, identification and location of all engine system components will be studied. *Prerequisites:* AUT Core, ENG 101 OR ENG 105 and MAT 100.

## **AUT 159 Auto Electronic and HVAC**

5 Credits (3 Lecture 0 Lab 2 Shop)  
9 Hrs/Wk (3 Lecture 6 Hrs. Shop) \*8 wks

This course teaches the theory of operation, diagnosis and repair of the electronic control systems for accessory and body control components. The systems will include, but not be limited to: electronic feedback systems, heat/cooling ventilation, interior accessories, and body electrical. This course introduces the principles of refrigeration and heat transfer. Modern test and recovery equipment will be used to diagnose and service automotive air conditioning systems. *Prerequisite:* AUT Core.

## **AUT 170 Engine Performance I**

3 Credits (2 Lecture 0 Lab 1 Shop)  
5 Hrs/Wk (2 Hrs Lecture 3 Hrs Shop)  
\*6 or 15 wks

This course will cover electronic control systems and computer functions as they relate to drivability, diagnosis and repair of cooling, ignition, fuel and emission components. *Prerequisite:* AUT 100.

## **AUT 180 Field Experience**

4 Credits (0 Lecture 0 Lab 4 Shop)  
12 Hrs/Wk (12 Hrs. Shop) \*8 wks

In AUT 180 the student works in the service department of a sponsoring automotive dealership or independent repair facility. This hands-on training, under the direction and supervision of an experienced technician, reinforces the subjects learned in the first semester automotive core curriculum. *Prerequisite:* AUT Core.

## **AUT 181 Field Experience**

2 Credits (0 Lecture 0 Lab 2 Shop)  
6 Hrs/Wk (6 Hrs. Shop) \*5 wks

In AUT 181 the student works in the service department of a sponsoring automotive dealership or independent repair facility. This hands-on training, under the direction and supervision of an experienced technician, reinforces the subjects learned in the first semester automotive core curriculum. *Prerequisites:* Department Chair approval and a minimum 2.0 GPA with AUT 159.

## **AUT 182 Field Experience**

4 Credits (0 Lecture 0 Lab 4 Shop)  
12 Hrs/Wk (12 Hrs. Shop) \*8 wks

In AUT 182 the student works in the service department of a sponsoring automotive dealership or independent repair facility. This hands-on training, under the direction and supervision of an experienced technician, reinforces the subjects learned in the first semester automotive core curriculum. *Prerequisites:* Department Chair approval and a minimum 2.0 GPA with AUT 130, 131, and 241.

## **AUT 184 Field Experience**

4 Credits (0 Lecture 0 Lab 4 Shop)  
12 Hrs/Wk (12 Hrs. Shop) \*8 wks

In AUT 184 the student works in the service department of a sponsoring automotive dealership or independent repair facility. This hands-on training, under the direction and supervision of an experienced technician, reinforces the subjects learned in the first semester automotive core curriculum. *Prerequisites:* Department Chair approval and a minimum 2.0 GPA with AUT 271.

## **AUT 200 State Inspection**

1 Credit (.5 Lecture .5 Lab 0 Shop)  
1.5 Hrs/Wk (.5 Hrs. Lecture 1 Hr. Lab)  
\*2wks

This course will interpret the Maine State Inspection manual. Testing and measuring equipment will be used to do a practice inspection on a motor vehicle.

## **AUT 240 Automatic Transmission**

6 Credits (3 Lecture 0 Lab 3 Shop)  
12 Hrs/Wk (3 Hrs. Lecture 9 Hrs. Shop)  
\*8 wks

This course teaches theory and practice devoted to all types of automatic transmissions/trans axles and their adjustment, troubleshooting and overhaul. Removal, disassembly, repair, assembly of pumps, converters, gear train, shafts, bushings, case friction and reaction units, hydraulic and electronic shift control will be covered. *Prerequisites:* AUT 159.

## **AUT 241 Automatic/Manual Transmission**

5 Credits (3 Lecture 0 Lab 2 Shop)  
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop)  
\*8 wks

This course will cover transmission theory and power flow from the engine to the drive axle. Removal, disassembly, repair, assembly of pumps, converters, gear train, shafts, bushings, case friction and reaction units, hydraulic and electronic shift control will be covered. Diagnosis and repair of clutch, transmission, trans axle, drive shaft, ring/pinion, axle shaft, differential case, and four-wheel drive components will be included. *Prerequisites:* AUT 130 and 131.

## **AUT 244 Advanced Engine Performance**

5 Credits (3 Lecture 0 Lab 2 Shop)  
20 Hrs/Wk (6 Hrs. Lecture 0 Hrs. Lab 14 Hrs Shop) \*8 wks

This course deals with engine performance principles as related to electronic feedback systems for fuel control, spark management, emission controls and related systems. Strategy based diagnosis will be emphasized using electronic diagnostic equipment. The student will troubleshoot OBDII drivability faults as they relate to modern emission controlled engines and related systems. Diagnosis leading to tests and repairs to trade standards of time and accuracy. *Prerequisite:* AUT 170.

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## **AUT 252 Manual Transmission & Driveline**

5 Credits (3 Lecture 0 Lab 2 Shop)  
20 Hrs/Wk (6 Hrs. Lecture 0 Hrs. Lab 14 Hrs Shop) 8\* wks

This course will cover transmission theory and power flow from the engine to the drive axle. Including noise and vibration diagnosis and repair, diagnosis and repair of clutch, transmission, transaxle, drive shaft, ring/pinion, axle shaft, differential case, and four-wheel drive components. *Prerequisites:* AUT Core.

## **AUT 271 Electronic Engine Control**

5 Credits (3 Lecture 0 Lab 2 Shop)  
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) \*15 wks \*8 wks

This course will cover all electronic components found in today's automobile. It also deals with engine performance principles as related to electronic feedback systems for fuel control, spark management, emission controls and related systems. Strategy based diagnosis will be emphasized using electronic diagnostic equipment. The student will troubleshoot OBDII drivability faults as they relate to modern emission controlled engines and related systems. Diagnosis will lead to tests and repairs within the trade standards of time and accuracy. *Prerequisite:* AUT 159.

## **AUT 276 Advanced Systems Diagnosis**

3 Credits (2 Lecture 0 Lab 1 Shop)  
20 Hrs/Wk (8 Hrs. Lecture 0 Hrs. Lab 12 Hrs Shop) 4 wks

This course will cover alternative powertrains including diesel, propane, natural gas, hydrogen, hybrid, and electric vehicles. Diagnosis of these systems as well as all computerized vehicle systems including vehicle communication networks. *Prerequisite:* AUT 244.

## **AUT 292 Computerized Chassis Controls**

3 Credits (1 Lecture 0 Lab 2 Shop)  
20 Hrs/Wk (5 Hrs. Lecture 0 Hrs. Lab 15 Hrs. Shop) 4 wks

This course will involve a comprehensive study of electronic and computerized brake, traction, suspension, steering, and alignment systems of modern vehicles. A guide to practical experiences in analyzing

problems and replacement of faulty sensors and associated components will provide students with theory and procedures necessary to diagnose faults. *Prerequisites:* AUT Core

## **AUT 296 Independent Study**

*Variable Credit*

This provision allows for a performance contract between student and Department instructor(s) to reach mutually agreed upon goals. Credit earned and grade dependent upon quality and efficiency of performance. (Credit hours are variable at a formula of 45 hours of student effort equaling 1 credit hour.) *Prerequisite:* Department Chair approval.

## **Biology (BIO)**

### **BIO 101 Introduction to General Biology**

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

An introduction to the chemical and physical nature of biological processes intended for students who do not plan to major in biological science. Cell structure, metabolism, reproduction, inheritance, and evolution are examined in lecture and laboratory using a wide variety of plants and animals as examples and experimental models.

### **BIO 102 Introduction to General Biology**

1 Credit (0 Lecture 1 Lab 0 clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks  
Laboratory experiments designed to support the topics covered in BIO 101. *Corequisite:* BIO 101.

### **BIO 104 Health and Wellness**

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

An introduction to the lifestyle skills that lead to better health. Course will include an overview of concepts involving the many aspects of health. Topics that will be covered include lifestyle choices and health, physical fitness, nutrition, weight management, stress management and emotional health, healthy aging, addictions, environmental health and complementary and alternative medicine. Students will

participate in various activities including journaling and behavior assessments to help develop personalized lifestyle plans to improve overall health.

## **BIO 105 Essentials of Human Anatomy and Physiology**

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This one semester course is designed to provide the student with rudimentary knowledge of human anatomy and physiology. This is a non-laboratory course that will cover the chemical basis of life, basic cell and tissue structure and all of the organ systems of the human body. Note: This course does not satisfy the requirements for programs such as nursing, clinical lab science, or radiological technology. *Prerequisite:* BIO 101/102 with a grade C or higher.

## **BIO 109 Human Biology**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will provide an overview of the human body including an introduction to anatomy and physiology, and is intended for students in non-life science/non-Life Sciences and Allied Health programs. There will be an emphasis on the structure and function of cells, tissues and the following organ systems: cardiovascular, digestive, nervous and musculoskeletal. Diseases and concerns of the 21st century as they relate to the human body will be explored including cancer, cardiovascular disease, autism, sexually transmitted disease, food poisoning, diabetes and obesity. *Prerequisites:* none. *Credit cannot be awarded for both BIO 109 Human Biology and BIO 101/102 General Biology Lecture Laboratory. Students who wish to earn degree credit for BIO 109 should take it prior to taking BIO 115, BIO 117 and BIO 105.*

## **BIO 110 Fundamentals of Environmental Science**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to provide students with a sound foundation in basic principles and unifying concepts of Environmental Science. Topic selection is based on major themes of modern environmental sciences:

# Course Descriptions

humans and sustainability; science and ecological principles; sustaining biodiversity and natural resources; and sustaining environmental quality and human societies. This course will study the interaction and relationship between humans and the environment. Students will gain an awareness of the importance of Earth's systems in sustaining our daily lives, plus the scientific foundation and tools needed to apply critical thought to contemporary environmental issues. The course is intended for both science and non-science majors. *Corequisite* BIO 111.

## BIO 111 Fundamentals of Environmental Science

1 Credit (0 Lecture 1 Lab 0 Clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

This is designed to provide students with a sound foundation in basic principles and unifying concepts of Environmental Science. Topic selection is based on major themes of modern environmental sciences: humans and sustainability; science and ecological principles; sustaining biodiversity and natural resources; and sustaining environmental quality and human societies. This course will study the interaction and relationship between humans and the environment. Students will gain an awareness of the importance of Earth's systems in sustaining our daily lives, plus the scientific foundation and tools needed to apply critical thought to contemporary environmental issues. The course is intended for both science and non-science majors. *Corequisite*: BIO 110.

## BIO 115 Anatomy and Physiology I

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to provide the student with in-depth theory of human anatomy and physiology. This is the first part of a two-semester course and will cover organization of the body, the chemical basis of life, support and movement, as well as the nervous system and integumentary system. *Prerequisites*: Students must meet the prerequisites for both ENG 101 and MAT 100, or permission from the instructor. *Corequisite*: BIO 116.

## BIO 116 Anatomy and Physiology I

1 Credit (0 Lecture 1 Lab 0 Clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

Laboratory experiments designed to support the topics covered in BIO 115. *Corequisite*: BIO 115.

## BIO 117 Anatomy and Physiology II

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to provide the student with in depth theory of human anatomy and physiology. This is the second part of a two-semester course and will cover the body systems that provide special sensation, transport, respiration, digestion, reproduction, excretion and selected topics in nutrition, metabolism, blood, lymphatic, immune system, fluid and electrolyte balance, pregnancy, human development and heredity. *Prerequisites*: BIO 115 (C or better) and BIO 116 (C or better) or permission from instructor. *Corequisite*: BIO 118.

## BIO 118 Anatomy and Physiology II

1 Credit (0 Lecture 1 Lab 0 Clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

Laboratory experiments designed to support the topics covered in BIO 117. *Corequisite*: BIO 117.

## BIO 121 Nutrition

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Nutrition will be studied by examining the metabolic and structural requirements of human cell, tissues, and organ systems. This knowledge will be applied to understanding the nutritional needs of various life stages including pregnancy, infancy, adolescence, adulthood and the older years. The nutrition related to health, disease, sports and eating disorders will also be included in this course. *Prerequisites*: BIO 101 and 102 General Biology with Laboratory, or BIO 115 and 116 Anatomy and Physiology with Laboratory with a grade C or higher.

## BIO 131 Biology I Lecture

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

BIO 131 is the first course in a sequence intended for students that plan to major in biological science. BIO 131/132 focuses on cell and molecular biology in prokaryotes, plants and animals. Changes

through time and modern biology will be presented in this course. Topics will include structure and function of cells, proteins, and DNA. Biological chemistry of metabolism and photosynthesis as well as Mendelian genetics with an evolutionary perspective will be discussed. *Prerequisites*: Must meet the prerequisites for both ENG 101 or ENG 105 and MAT 100. *Corequisite*: BIO 132 laboratory.

## BIO 132 Biology I Lab

1 Credit (0 Lecture 1 Lab 0 Clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

This laboratory course is the first laboratory course in a sequence intended for students that plan to major in the biological sciences.

In this course students will ask questions regarding: basic biochemistry, molecular activity, cellular metabolism, Mendelian genetics and gene expression. Students will develop skills in basic statistics and scientific writing to report their experimental results. They will use the scientific method to problem solve in a biological lab setting. Laboratory safety and procedures will be introduced along with microscopy, spectrophotometry and gel electrophoresis skills. *Prerequisites*: Must meet the prerequisites for both ENG 101 or ENG 105 and MAT 100. BIO 132 includes laboratory experiments designed to support the topics covered in BIO 131. *Corequisite*: BIO 131.

## BIO 133 Biology II Lecture

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

BIO 133 is the second course in a sequence intended for students that plan to major in biological sciences. BIO 133/134 concentrates on introducing the biology of organisms. This course will cover concepts of evolution in organisms that include prokaryotes, plants, fungi, and animal. Diversity between organisms as well as survival methods and reproduction will be examined. Ecological fundamentals will be covered as well. *Prerequisites*: BIO 131/132 with a C or better. *Corequisite*: BIO 134.

## BIO 134 Biology II Lab



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1 Credit (0 Lecture 1 Lab 0 Clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

BIO 134 is the second laboratory course in a sequence intended for students that plan to major in the biological sciences. This course will continue the exploration into the study of living organisms. The students will continue the use of scientific method to problem solve in a biological lab setting. Students will observe organisms looking for similarities and differences within the species. *Prerequisites:* Completion of BIO 131/132 with a C or better. BIO 134 includes laboratory experiments designed to support the topics covered in BIO 133. *Corequisite:* BIO 133.

## BIO 211 Microbiology

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to give the student an introduction into the world of microbiology. Students will explore the anatomy and physiology of bacteria, viruses, fungi and both cellular parasites, as students study the roles in disease and immunology. *Prerequisites:* A grade of C or better in one of the following Life Science course sequences: BIO 115 /116 and BIO 117/118 OR BIO 131/132 and BIO 133/134. *Corequisite:* BIO 212.

## BIO 212 Microbiology

1 Credit (0 Lecture 1 Lab 0 Clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

This course is designed to give the student an introduction into laboratory techniques used in the identification of disease causing microbes. Specimen handling, processing, culture, identification and differentiation of microbes will be done by the student in the lab. *Corequisite:* BIO 211.

## BIO 222 Genetics

3 Credits (3 Lecture 0 Lab 0 Clinical)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This introductory course is designed to explore the fundamental concepts of genetics. The first part of the course focuses on the basic principles of classical (Mendelian) genetics; including the nature of hereditary factors and the mechanisms by which they are transmitted and expressed. The latter part of the course covers modern discoveries and techniques that have a foundation in molecular biology. *Prerequisites:* Either

Bio 101 and 102, General Bio with Lab, or BIO 115 and 116 Anatomy and Physiology I with Lab or BIO 105 Essentials of Anatomy and Physiology with a grade C or higher.

## BIO 223 Genetics Lab

1 Credits (0 Lecture 1 Lab 0 Clinical)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

Genetics laboratory will complement genetics lecture BIO 222 with a series of actual and simulated genetic crosses that will demonstrate principles of Mendelian inheritance and that cover basic genetic concepts and techniques. Analysis of genetic outcomes and application of results to general principles will be emphasized. You will work on improving your scientific writing skills by maintaining a lab notebook and constructing lab reports. *Prerequisite:* Either successful completion of BIO 101 and 102, with a C or better, or BIO 115 and 116, with a C or better or BIO 105 or BIO 131/132, with a C or better. *Corequisite:* BIO 222.

## BIO 255 Forensic Science

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This theory class is designed to provide the student with the scientific basics of forensic science techniques used in solving crime. Students will be introduced to the theory of crime scene processing as well as the analysis and interpretation of physical evidence. *Prerequisites:* A grade of C or better in one of the following Life Science courses: BIO 101/102 OR BIO 115/116 OR BIO 105 OR BIO 131/132. *Corequisite:* BIO 256.

## BIO 256 Forensic Science

1 Credits (0 Lecture 1 Lab 0 Shop)  
2 Hrs/Wk (2 Hr. Lab) \*15 wks

These two courses, BIO 255 theory and BIO 256 lab, run concurrently and are designed to provide the student with the scientific basis of forensic science techniques used in solving crime. Students will be introduced to the theory of crime scene processing as well as the analysis and interpretation of physical evidence. *Prerequisites:* A grade of C or better in one of the following Life Science courses: BIO 101/02 OR BIO 115/116 OR BIO 105

OR BIO 131/132. *Corequisite:* BIO 255.

## Building Construction Technology (BCT)

### BCT 101 Introduction to Hand and Power Tool Safety

1 Credit (.25 Lecture 0 Lab .75 Shop)  
19 Hrs/Wk (2 Hr. Lecture 17 Hrs. Shop) \*2 wks

This course introduces students to safety procedures used for hand and stationary power tools. Students will demonstrate their understanding by constructing a saw horse from a provided drawing.

### BCT 126 Construction Site Surveying

2 Credits (1 Lecture 1 Lab 0 shop)  
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) \*15 wks

Students are introduced to preliminary site development using basic zoning, code, and deed descriptions as they relate to a site plan. Construction site surveying is introduced through the demonstrated use of surveying transits, builder's level, and associated equipment applied directly to Residential Construction.

### BCT 128 Basic Strength of Materials

2 Credits (2 Lecture 0 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

This course is intended to give students a basic understanding of the forces and uniform loads taken into account in designing and building Residential Structures.

### BCT 142 Building Concepts I

3 Credits (1.5 Lecture 0 Lab 1.5 Shop)  
16 Hrs/Wk (4 Hrs. Lecture, 12 Hrs. Shop) \*5.5 wks

This is the first in a series of courses designed to teach the student the fundamental principles residential and light commercial construction are based upon. Theory of basic concepts such as straight, level, plumb, and square are covered in the classroom as well as through practical hands-on projects. Basic foundation and floor framing theory and techniques will be addressed. *Corequisite:* BCT 101 Introduction to Hand & Power Tool Safety or Department Chair approval.

### BCT 143 Building Concepts II

# Course Descriptions

*3 Credits (1 Lecture 0 Lab 2 Shop)  
14 Hrs/Wk (2 Hrs. Lecture, 12 Hrs. Shop)  
\*7.5 wks*

This course builds upon BCT 142 Building Concepts I. While reinforcing the basic fundamentals learned, the depth and scope of these basic concepts will be expanded. Through construction projects and mock-ups, students will demonstrate new learning based on basic construction fundamentals while being introduced to basic project management principles. Basic wall & roof framing theory & techniques will be addressed. *Prerequisites: BCT 142 or Department Chair approval.*

## **BCT 144 Building Concepts III**

*3 Credits (1 Lecture 0 Lab 2 Shop)  
14 Hrs/Wk (2 Hrs. Lecture, 12 Hrs. Shop)  
\*7.5 wks*

This course builds upon BCT 143 Building Concepts II. Fundamental building concepts learned the first semester will be reinforced through classroom lecture, mock-ups, and live test results. Student advancement, responsibilities, and pace will be determined by successfully demonstrating higher levels of accomplishments assessed through competency testing. Fundamental concepts of fenestration, building envelope, and basic building science will be addressed. *Prerequisites: BCT 143 or Department Chair approval.*

## **BCT 145 Building Concepts IV**

*3 Credits (1 Lecture 0 Lab 2 Shop)  
14 Hrs/Wk (2 Hrs. Lecture, 12 Hrs. Shop)  
\*7.5 wks*

This course builds upon BCT 144 Building Concepts III. Students will continue to strengthen previous learning and develop new skills through continued course work, mock-ups, and live projects. Project management fundamentals will be stressed through active participation in design, scheduling, material ordering, and problem solving. Students will be challenged through competency testing at advanced levels upon successfully demonstrating core competencies. Coverage of fundamentals concepts of fenestration, building envelope, and basic building science will continue from previous course. *Prerequisites: BCT 144 or Department Chair approval.*

## **BCT 152 Construction Document**

## **Reading & Cost Estimating**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hr. Lecture, 0 Hrs. Shop)\*15 wks*

Students will be introduced to documents related to residential construction, including construction drawings, specifications, schedules, and contracts. The vocabulary of lines will be emphasized, including object lines, extension lines, dimension lines, and hidden lines along with the basic use of a scale rule. Students will generate a competitive cost analysis of a residential home from a set of construction plans, using Microsoft Excel spreadsheet software as a primary tool. Material and labor will be calculated based on standard estimating procedures and building practices specific to this region. A bid summary will be prepared taking into account materials, labor, sub-contractor costs, overhead, and profit. Students will be exposed to minimum legal and contractual requirements in the State of Maine, the Maine Uniform Building and Energy Code (MUBEC), DigSafe, and OSHA. *Prerequisite: BCT 145.*

## **BCT 154 Millwork I**

*5 Credits (2 Lecture 0 Lab 3 Shop)  
23.5 Hrs/Wk (4.25 Hrs. Lecture, 19.25 Hrs. Shop) \*7 wks*

In this course students will learn about the major finish components of a residential home. Through a combination of mock-up and live work, students will experience the proper millwork and instruction of interior finish such as: door / window installation, casing, profiled baseboard, crown moldings, basic cabinets, and finish stair construction. *Prerequisite: Participation in BCT Jobsite Track program and Department Chair approval.*

## **BCT 180 Introduction to Building Science**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

Designed to demonstrate how residential buildings and renovations obey the basic laws of physics, including gravity, wind, and seismic loads, moisture movement and air flow, differential pressures, heat transfer through conduction, convection, and radiation, and sound transmission. It will show how failure to account for these laws of physics can result in structural problems and building failure, poor indoor air quality or "Sick House Syndrome", and

high heating and cooling costs. Students will be exposed to the sciences involved in Foundations, Building Shells, Insulations methods, Roof types, HVAC systems, Domestic Water systems, Passive and Active Solar, Photovoltaics, and Interior Finish choices. The United States Green Building Council's LEED (Leadership in Energy and Environmental Design) certification process will be discussed, as well as the Maine Uniform Building and Energy Code.

## **BCT 185 Field Experience I**

*4 Credits (4 Field experience 0 Lab 0 Shop)*

*(280 Hrs. field experience) \*7 wks*

In this course, the student works on the job site / shop of a sponsoring construction company. This hands-on training, under the direction and supervision of an experienced supervisor, reinforces the subjects learned in the first semester BCT core curriculum. *Prerequisites: Department chairperson approval and a minimum 2.0 GPA with BCT 101, 126, 142, 143 and 6 credits outside of BCT core courses, successful completion of OSHA 10- hour card in Construction, construction company or independent contractor sponsor and valid driver's license required.*

## **BCT 186 Field Experience II**

*2 Credits (2 Field experience 0 Lab 0 Shop)*

*(160 Hrs. field experience) \*4 wks*

In this course, the student works on the job site / shop of a sponsoring construction company. This hands-on training, under the direction and supervision of an experienced supervisor, reinforces the subjects learned in the first semester BCT core curriculum and previous Field Experience. *Prerequisites: Department chairperson approval and a minimum 2.0 GPA with BCT 154 Millwork 1 and previous BCT Field Experience I, Construction company or independent contractor sponsor and valid driver's license required.*

## **BCT 197 Internship**

*3 Credits \*15 wks*

Total hour commitment varies from 135 to 280 hours based on the nature of the project /experience. This number will be determined by Department Chair prior to course registration. The internship option gives a student the opportunity to apply prior



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learning working in the BCT department. For example, a first-year student might learn timber framing and as an intern during her/his second year lead some first-year students in the construction of a new frame. Scheduling to meet minimum contact hours and fulfill course requirements will be agreed to between student and instructor. All projects and participation subject to Department Chair approval. *Prerequisites:* BCT 145.

## **BCT 200 Structural Analysis I**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
6 Hrs/Wk (6 Hr. Lecture)\*7.5 wks*

This course will demonstrate the effect improper building practices have on the structural integrity of a home and teach students to recognize structural load path transfer from roof to footing. Building course outcomes around these two focal points will give students the knowledge and understanding to make critical construction decisions allowing them to apply best building practices. We are an unlicensed trade in the State of Maine. While many building practices are obviously correct or obviously deficient, this course will illustrate the differences and consequences of improper building practices. Students will immediately apply this knowledge in their remaining field experiences. *Prerequisite:* BCT 100 level courses and enrolled in Jobsite Track program or Dept. Chair Approval.

## **BCT 205 Interior Finish I**

*5 Credits (2 Lecture 0 Lab 3 Shop)  
11 Hrs/Wk (2 Hr. Lecture, 9 Hrs. Shop)  
\*15 wks*

In this course students will learn about the major finish components of a residential home. Through a combination of mock-up and live work, students will experience the proper millwork and instruction of interior finish such as: door / window installation, extension jambs, casing, profiled baseboard, crown moldings, drywall preparation and installation, router use, and basic scribing / coping techniques. *Prerequisite:* 100 level BCT courses or Dept. Chair approval.

## **Management**

*2 Credits (2 Lecture 0 Lab 0 Shop)  
2 Hrs/Wk (2 Hr. Lecture)\*15 wks*

The focus of this course is on construction specific business practices, legal issues, project scheduling, job supervision, and site management. This course would benefit any graduate attempting to start their own contracting business. Employers also feel an employee's value is enhanced with greater awareness of how their business operates, legal consequences of an individual or client's actions, and how schedule is impacted by variables the job supervisor has to deal with on a daily basis. Understanding a job supervisors role changes an employee's perspective about how and why their boss makes the decisions he/ she does. This understanding makes them more valuable to an employer. *Prerequisite:* BCT 100 level courses or Dept. Chair Approval.

## **BCT 255 Interior Finish II**

*5 Credits (2 Lecture 0 Lab 3 Shop)  
11 Hrs/Wk (2 Hr. Lecture, 9 Hrs. Shop)  
\*15 wks*

In this course, students will continue to learn about the major finish components of a residential home. Through a combination of mock-up and live work, students will experience the proper millwork and instruction of interior finish such as: cabinet construction, kitchen cabinet and countertop installation, and finish stair construction including routed housed skirt and post to post balustrade. *Prerequisite:* BCT 205 Interior Finish I or Dept. Chair approval.

## **BCT 285 Field Experience III**

*4 Credits (4 Field experience 0 Lab 0 Shop)  
(280 Hrs. field experience) \*7 wks*

In this course, the student works on the job site / shop of a sponsoring construction company. This hands-on training, under the direction and supervision of an experienced supervisor, reinforces the subjects learned in the first semester BCT core curriculum and previous Field Experience. *Prerequisites:* Department chairperson approval and a minimum 2.0 GPA in BCT 186 Field Experience II, Construction company or independent contractor sponsor and valid driver's license required.

*4 Credits (4 Field experience 0 Lab 0 Shop)  
(280 Hrs. field experience) \*7 wks*

In this course, the student works on the job site / shop of a sponsoring construction company. This hands-on training, under the direction and supervision of an experienced supervisor, reinforces the subjects learned in the first semester BCT core curriculum and previous Field Experience. *Prerequisites:* Department chairperson approval and a minimum 2.0 GPA in BCT Field Experience III, Construction company or independent contractor sponsor and valid driver's license required.

## **BCT 297 Externship in Building Construction**

*3 Credits \*15 wks*

Total hour commitment varies from 135 to 280 hours based on the nature of the project / experience. This number will be determined by Department Chair prior to course registration. The externship option gives a student the opportunity to apply prior learning in a professional setting off campus. Students may propose an externship site or choose from a list of established externship partners, but regardless all placements require Department Chair approval. Students will be responsible for scheduling/ transportation to fulfill required number of contact hours and completion of course requirements. All externships subject to Department Chair approval. *Prerequisites:* BCT 145 and BCT 152

## **BCT 298 Capstone in Building Construction**

*3 Credits \*15 wks*

Total hour commitment varies from 135 to 280 hours based on the nature of the project / experience. This number will be determined by Department Chair prior to course registration. The capstone option gives a student the opportunity to demonstrate comprehensive learning in the major through the completion of an approved project. The experience must include aspects of design, estimation, and skill proficiency germane to the project that illustrate both comprehension and development of program skills. For example, building an exterior deck from conceptual stage to finished product. Scheduling to meet minimum contact hours

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and fulfill course requirements will be agreed to between student and instructor prior to the course start. All projects and participation subject to Department Chair approval. *Prerequisite: BCT 145 and BCT 152*

## **BCT 296 Special Topics**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

Students taking this course will explore selected topics in Building Construction Technology that are relevant at the time of delivery. This course will not address subject matter currently offered within other BCT courses. Since the topics will change from year to year, students should check with the instructor to obtain more in-depth information on the topic offered for that given time period.

## **Business Administration and Management (BUS)**

### **BUS 100 Understanding Business**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The purpose of this course is to introduce students to the nature and structure of business in the United States. The scope of the course will include an overview of the functional areas (i.e. finance, marketing, etc.) as well as the terms and concepts used in modern organization.

### **BUS 101 Small Business Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The purpose of this course is to introduce students to terms, concepts and tools used to start and/or manage a small business. The course will analyze typical problems, tasks and responsibilities confronting managers of small organizations.

### **BUS 110 Principles of Supervision**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The purpose of this course is to introduce students to the principles involved in working through, and understanding human resources. It is designed to enhance the leadership and administrative skills of existing and potential first line managers, supervisors and small business owners.

### **BUS 115 Leadership and Interpersonal Relations**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course is designed to introduce students to the concept of leadership, various leadership styles and the cause and effect relationships in using the styles. Student successfully completing this course will learn that leadership is a set of practices that can be mastered. Participants will "experience" leadership activities by developing appropriate interpersonal skills through role playing and other activities.

### **BUS 120 Employment Law**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

Employment Law (State of Maine and Federal) covers a broad range of subject areas and its impact develops well before the advertising and recruiting of personnel. The purpose of this course is to promote an understanding of acceptable and unacceptable employment practices for hiring and supervising employees.

### **BUS 124 Legal Environment of Business**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course exposes students to the United States legal environment in which companies, large and small, operate. Students will explore such topics as: the legal system, alternative dispute resolution, business ethics, constitutional law, torts, product liability, intellectual property, contracts, business organizations, the regulatory process, antitrust, consumer and environmental issues, and criminal law.

### **BUS 140 Introduction to Sports Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will discuss sports management and the scope of opportunities the sports industry presents. It will discuss major challenges confronting various segments (collegiate, professional, and international) of the industry. The course will also explore the historical, psychological, sociological, and philosophical foundations of sports management, organizational concepts and their application to sport management.

Event planning and facility management will also be introduced.

### **BUS 145 Facilities Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will explore the world of Facilities Management. The student will gain an understanding as to the complexity involved in the overall programming, operation, maintenance, promoting and managing various types of facilities. The course will include the theory behind planning and managing a facility as well as numerous case studies allowing the student to apply the theory presented in the beginning of the course.

### **BUS 150 Effective Customer Relations**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

A sound and loyal customer base is one of an organization's most important assets. This course details the origin of positive customer relations and discusses the tools, attitudes and training required to support a comprehensive program.

### **BUS 155 Business Retail and Merchandising Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

Considered a major component of economic activity, Retailing surrounds and impacts us on a daily basis. This course is designed to provide an understanding of the principles involved in a successful retail operation and recognize the dramatic change the activity is undergoing - from "bricks and mortar" to E-Commerce. Additionally, 25% of the course will concern itself with merchandising tools, techniques, and strategies. Note: if a student is interested in a specific field of retailing (i.e. auto parts and service etc.) their assignments will be directed accordingly.

### **BUS 160 Introduction to Sales and Sales Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The course begins with an introduction to personal selling techniques, and the advantages of personal selling over other forms

# Course Descriptions

of promotion. Relationship or consultative selling will be emphasized as the most modern approach to sales. The principle tasks of Sales Management will be explored with an emphasis on how sales managers and sales people can most effectively work together.

## **BUS 180 Managing Office Procedures: Optimizing Task Resources**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The efficient and economical operation of a contemporary office requires knowledge and skills in a wide variety of functional areas. This course will examine in detail the basic operational aspects of managing an office including shipping and receiving of materials, record and data storage, managing calendars, efficient inter-office communications and staff training and development.

## **BUS 215 Principles of Marketing**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The course begins by dissecting the elements of the marketing mix-product, price, promotion and place and ends with the completion of a marketing plan for a product chosen by each student. Topics include segmentation, distribution, consumer behavior, etc. Different aspects of marketing product vs. service and wholesale vs. retail vs. direct and industrial marketing, will also be explored.

## **BUS 218 Human Resource Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

Recruitment, selection, training, human resource planning, compensation management, Equal Employment Opportunity (EEO), performance evaluation, discipline, and employee health and safety topics are covered in the course. Students are introduced to the role of the human resource executive and staff in corporate management as well as their role in the planning for the organization.

## **BUS 220 Managing People and Organizations**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

When employees work in organizations, managerial effectiveness is enhanced when the dynamics of human behavior in group situations are understood. This course will apply the principles developed by behavioral scientists to the human resource component of the business organization.

## **BUS 255 Electronic Commerce**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This is a computer-based and case study course. It is designed to introduce students to various aspects of Electronic Commerce. E-Commerce is doing business electronically. It will include business strategies for selling and marketing on the Web, online auctions, virtual communities, legal, ethical and tax issues, supply-chain management, payment systems, security, and web server and e-commerce hardware and software. Included in class sessions will be "hands on" access to the World Wide Web.

## **BUS 260 Business Finance**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course is designed to investigate the mechanisms of business finance including financial analysis, capital management, budgeting and commercial financing.

## **BUS 270 Hospitality Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course is designed to provide Culinary Arts students and others, having a career interest in Hospitality Management with an understanding of how the industry functions, including its policies and procedures. The focus will be on Food Service and Lodging Management, although other aspects of the industry will be covered.

## **BUS 286 Social Media Marketing**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will explore the foundations and principles of social media marketing and its role in branding and growing a

small business. The basic concepts of social media and small business marketing will be discussed. Students will examine the relevance and importance of using social media tactics to market a small business. This course highlights the usefulness of social media for businesses as a vehicle for facilitating customer communication and interactions. *Prerequisite: BUS 215.*

## **BUS 297 Business Program Internship**

*3 Credits. Hours to be determined by internship contract.*

Internships provide experiential learning opportunities that integrate knowledge and theory learned in the classroom with practical application and skills development in a professional setting. Internships give students the opportunity to gain valuable applied experience and make connections in professional fields they are considering for career paths. Employers gain the opportunity to guide and evaluate talent. The approval process must be complete by May 1 for the fall semester and December 1 for the spring semester.

## **BUS 298 Business Capstone**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This is a senior standing course for the assessment of prior learning and lifelong learning objectives. Students will be placed in small groups to act as the senior management team of a simulated company. They will work with a computer simulation model that will give real life problems that embodies prior course learning, integration of team management, the disciplines and concepts of Accounting, Marketing, Management, and Finance concepts. Students will be required to present before a select group of business professionals, faculty and fellow classmates. *Prerequisites: ACC 210, BCA 120, BUS 100, BUS 110, BUS 12x, BUS 215, COM 10X, ENG 101 or ENG 105, ENG 220, MAT 101.*

# Course Descriptions

## Business and Computer Applications (BCA)

### BCA 120 Introduction to Computer Applications

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is an introductory computer course that is structured to familiarize the student with usage of computers as a tool for business and industry. Taking a hands-on approach, students will become skilled in the use of Windows and Microsoft Office. These competencies include the operation of word processing, spreadsheets, database and presentation software. All learning will be in a lab environment where students will directly apply instructions using individual computers. *Prerequisite: Students should be familiar with basic mouse and keyboard operation prior to registration.*

### BCA 152 Integrated Software Applications

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is a course in the use of integrated software applications for report, document, presentation and information development activities. Advanced concepts and techniques using Microsoft Word, Excel, Access and PowerPoint to produce professional proposals, financial reports, data forms and presentations will be featured. Exercises will stress the importance of file and data management. Students will be expected to produce these documents in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisite: BCA 120.*

### BCA 241 Spreadsheets

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is intended to instruct beginning and entry level students in the fundamentals of spreadsheet operations using Microsoft Excel. It will expose them to basic spreadsheet concepts as well as many of the more sophisticated functions which enhance spreadsheet utilization, improve functionality and increase a wide variety of applications for spreadsheet analysis. *Prerequisite: Basic keyboarding skills and knowledge of PC operations.*

### BCA 246 Database Management

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is intended to introduce skills and build proficiency in database management using Microsoft Access. It is designed to develop competencies in various database processing functions. Students will become proficient in setting up databases, managing data, querying, creating forms and reports, using report enhancements and manipulating data. *Prerequisites: BCA 120 or 152.*

## Career Studies (CAS)

### CAS 199 Prior Learning Assessment

Variable credit (max 18 hours)

This listing reflects the College's recognition of appropriate and significant prior learning and its credit relationship to degree requirements. Knowledge and skills (not chronological experience) acquired prior to matriculation must be systematically identified and documented. Please refer to the College catalog under "Academic Credit for Prior Learning" for additional guidelines. Credit awards vary and are considered for posting at the discretion of the College. *Prerequisite: Significant occupational training and experience.*

## Chemistry (CHY)

### CHY 101 Introduction to Chemistry

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is intended to satisfy the need for a one semester course in Introductory Chemistry. It is structured to familiarize the student with principles of Inorganic Chemistry and a survey of Organic Chemistry. The student will become familiar with standard chemical procedures and the terminology of Chemistry. The student will also be able to predict chemical reactions under a variety of situations. *Prerequisite: High School Algebra I, or MAT 050 with a grade C or higher. Corequisite: CHY 102.*

### CHY 102 Introduction to Chemistry Lab

1 Credit (0 Lecture 1 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

Laboratory experiments designed to support the topics covered in CHY 101. *Corequisite: CHY 101.*

### CHY 111 Principles of Organic and Biological Chemistry

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The student will be observing changes in organic and biological matter and finding cause and effect relationships. The student will conduct scientific experiments on organic matter and interpret the results of these experiments. *Prerequisites: CHY 101 and 102; Corequisite: CHY 112.*

### CHY 112 Organic and Biological Chemistry Lab

1 Credit (0 Lecture 1 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

Laboratory experiments designed to support the topics covered in CHY 111. *Corequisite: CHY 111.*

### CHY 121 General Chemistry I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is the first semester of a two semester course intended to prepare students for further study in chemistry or other sciences and engineering. The course begins with the study of matter, atomic theory, chemical reactions and calculations involved with them. The electronic structure of atoms is used to provide insight to periodic properties, chemical bonding and molecular structure. The study of intermolecular forces, gases, liquids, solids and unusual properties of water and other molecules conclude the first semester. *Prerequisite: MAT 122. Corequisite: CHY 122.*

### CHY 122 General Chemistry I Lab

1 Credit (0 Lecture 1 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

This course emphasizes the experimental nature of chemistry. Laboratory safety and measurement are the first subjects. Physical properties, chemical properties, chemical reactions, stoichiometry, and other subjects that are introduced in the first semester



# Course Descriptions

lecture course will be studied. *Corequisite:* CHY 121.

## CHY 123 General Chemistry II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
The second semester begins with the study of Properties of solutions and continues with chemical kinetics, chemical equilibrium, acid-base equilibrium, and other aqueous equilibria. Chemical thermodynamics is the last required topic. The semester concludes with subjects such as electrochemistry, nuclear chemistry, organic chemistry, coordination chemistry, etc. as interest and time permits. *Prerequisite:* C or better in CHY 121. *Corequisite:* CHY 124.

## CHY 124 General Chemistry II Lab

1 Credit (0 Lecture 1 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks  
The second semester laboratory will present experimental support for subject matter presented in the lecture. There will also be the possibility of subject matter presented from an experimental perspective that is not presented in Lecture. *Prerequisite:* C or better in CHY 121 and CHY 122.

## CHY 221 Organic Chemistry I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Organic Chemistry is the study of the chemistry of compounds containing carbon. Organic Chemistry I Lecture is the first half of a comprehensive one-year course suitable for science majors. The first semester course includes structural and functional aspects of saturated and unsaturated hydrocarbons with various heteroatom functionalities. Discussion focuses on the mechanistic basis for organic compound reactivity. *Prerequisites:* C or better in CHY 123/124. *Corequisite:* CHY 222.

## CHY 222 Organic Chemistry I Lab

2 Credits (0 Lecture 2 Lab 0 Shop)  
4 Hrs/Wk (4 Hrs. Lab) \*15 wks  
Organic Chemistry I Lab runs concurrently with Organic Chemistry I Lecture. First semester labs concentrate on the basic techniques and procedures used in organic syntheses and separations, including microscale techniques. *Prerequisites:* C or

better in CHY 123/124. *Corequisite:* CHY 221.

## CHY 251 Organic Chemistry II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Organic Chemistry is the branch of chemical science engaged in understanding the structure, function, behavior, and reactivity of molecules containing carbon. Organic Chemistry II Lecture includes functional aspects of saturated and unsaturated hydrocarbons with various heteroatom functionalities. Discussion focuses on the mechanistic basis for organic compound reactivity for saturated and unsaturated hydrocarbons and approaches to synthetic design. In addition, modern analytical techniques such as infrared spectroscopy and nuclear magnetic resonance spectroscopy (<sup>1</sup>H & <sup>13</sup>C) used in the identification of organic compounds will be discussed. *Prerequisites:* C or better in CHY 221/222. *Corequisite:* CHY 252.

## CHY 252 Organic Chemistry II Lab

2 Credits (0 Lecture 2 Lab 0 Shop)  
4 Hrs/Wk (4 Hrs. Lab) \*15 wks  
Organic Chemistry II Lab runs concurrently with Organic Chemistry II Lecture. Second semester lab is built upon the basic techniques and procedures first introduced in CHY 222, as applied to carrying out fundamental organic chemistry reactions (both ionic and radical). Additional emphasis is placed on the analysis of collected data using gas chromatography and various spectroscopic techniques (e.g., IR, NMR, and mass spectrometry). *Prerequisites:* C or better in CHY 221/222. *Corequisite:* CHY 251.

## Communications (COM)

### COM 100 Public Speaking

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course provides the student with training and experience in researching, organizing, and presenting various types of oral presentations. Topics covered include audience analysis, speech organization, delivery techniques, and the use of visual aids, including Power-Point. Narrative,

informative/ demonstration, persuasive, and group presentations are required. Speeches are videotaped for student review.

### COM 101 Interpersonal Communication

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course introduces the student to the elements of interpersonal communication. The overall goal of the course is to enable students to improve the effectiveness of their interpersonal communication skills in their personal and professional lives. The course covers the nature of communication, the importance of one's identity, and the role of perception, emotions, and active listening. It examines the nature of language and non-verbal communication and considers gender and cultural differences. It focuses on improving communication in relationships, concentrating on relational dynamics, communication climates, and interpersonal conflict.

### COM 121 Group Process

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course introduces the student to the elements of small group communication. The overall goal of the course is to have students develop more effective communication skills for use in small group situations. Students will practice providing appropriate and effective feedback among group members, resolving conflicts, problem solving in small groups, and participating in and facilitating group discussions. Students will be expected to study group theory and understand the small group communication process while undertaking a worthwhile community action project as a group effort.

### COM 151 Mass Media and Popular Culture

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course introduces the student to the economic, political, and social dimensions of mass media with an emphasis on electronic media. Students will be introduced to a variety of perspectives on contemporary media and will examine the

# Course Descriptions

components of media literacy. The overall goal of the course is to enable students to develop critical strategies of media analysis to become an active, informed media consumer.

## Computer Aided Drafting/ Design (CAD)

### CAD 110 Introduction to Computer Aided Drafting (CAD)

3 Credits (1 Lecture 2 Lab 0 Shop)  
5 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) \*15 wks

This is an introductory CAD based drafting and design course utilizing the latest CAD/BIM software. In conjunction with learning CAD, students will be introduced to the process of design, the related components and materials, research, drawing and presentation of construction related documents, from conceptual hand sketches, CAD sketches to CAD drawings, and related spreadsheets, materials, and construction techniques. Course focus is divided into three main segments. The first is to introduce CAD. The second is to introduce factors in pre-design for the building and site as it relates to programming, codes, ADA, and space planning. The third is to integrate the pre-design factors into industry standard construction/design drawings created with CAD.

### CAD 262 Intermediate Computer Aided Design (CAD)

3 Credits (1 Lecture 2 Lab 0 Shop)  
5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Lab) \*15 wks

This is an intermediate based CAD design course expanding upon introductory level commands to enhance greater efficiency, networking, team work, presentations, customization, and 3D concepts towards the creation of an A/E industry standard with CAD based drawings for various interior spaces in residential and commercial buildings. Students will research design and construction processes, materials, methods to design residential and commercial interiors with a focus on kitchens and bath, corporate team spaces, meetings, and executive spaces. The student will evaluate and integrate, space use, access and flow, materials, furniture fixtures and equipment, lighting, color,

texture, space, scale and integration of related building systems. This is a "hands-on" approach with all topics being directly applied in the CAD lab, so as to align CAD software use with techniques to create a variety of related drawings, renderings and 3D CAD models and related schedules.  
*Prerequisites:* CAD 110.

### CAD 282 3-D CAD and Solid Models

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed as an advanced CAD course using Auto CAD Mechanical Desktop on Windows-based personal computers. Auto CAD's 3-D Solid Model features will be the focus of this course utilizing parametric solids. All assignments will pertain to the design of mechanical components. *Prerequisite:* CAD 262.

### CAD 284 Architectural CAD

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is an advanced level CAD course utilizing Auto CAD on Windows-based personal computers. The focus of the course will be the creation of drawings for the construction industries. An emphasis will be given to the use of scales, dimension styles, and file management. The course will also include the use of 3-D with the creation of elevation and perspective views.  
*Prerequisite:* CAD 262 or CAD 110.

### CAD 292 Advanced Solid Modeling

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to teach the use of advanced features found in the College's parametric modeling software. Students will work in a networked environment to: utilize advanced modeling techniques, produce assemblies, and use advanced drawing creation and annotations. The principles of finite element analysis (FEA) will also be introduced. All assignments will pertain to the design of mechanical components.  
*Prerequisite:* CAD 282.

## Computer Technology (CPT)

### CPT 127 Introduction to Python Programming

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Students taking this course will learn how to create structured programs using Python. Skills will include writing program code, creating controls, creating and manipulating variables, understanding and implementing program decision making logic, creating sub procedures, debugging, data manipulation, and object manipulation.

### CPT 130 Introduction to Visual BASIC

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Students taking this course will learn how to create object-oriented programs using Microsoft's Visual Basic. Skills will include writing program code, creating a graphical user interface, creating controls, creating and manipulating variables, understanding and implementing program decision making logic, creating sub procedures, debugging, data manipulation and object manipulation. Significant study time outside of class will be required to complete reading assignments and complete homework exercises.

### CPT 147 Introduction to PC Repair/Operating Systems

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Lecture 2 Lab) \*15 wks  
This course is an introduction to the installation, maintenance and repair of PC's and related equipment and to introduce students to operating systems compatible with today's personal computers. It provides students with an understanding of PC environments including system components, peripherals, and component/card interface and the fundamentals of repair. The course also familiarizes students with the major features and functions of each operating system and build competencies and familiarity with operational aspects of the software. This is the first of two courses designed to prepare students for the A+ exam.



# Course Descriptions

## CPT 166 Fundamentals of Structured Query Language

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

A broad-based introductory course that covers all fundamentals of relational database access using structured query language (SQL). The course will cover the way to effectively retrieve and manipulate data in a database to meet an employer's or client's needs. The class will cover the basics of SQL, its strengths and weaknesses. It will focus on presenting implementation-independent SQL coding and use while highlighting several vendor specific implementations. Students will be required to become proficient in managing a small relational database under MS SQL Server, hosted on campus. Taking a hands-on approach, students will become skilled in designing and using SQL language to retrieve, organize, present, update and delete data. These competencies include a basic understanding of relational database, MS SQL Server and SQL. All learning will be in a lab environment where students will directly apply instructions using individual computers.

## CPT 201 Linux

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an introduction to the Linux operating system. It will provide students with the basic introductory abilities required to install, configure, administer, and troubleshoot the Linux operating system. This course will also acquaint students with several of the many Linux distributions available, typical Linux applications and utilities, and it touches upon the important command line utilities and applications.

## CPT 202 Advanced Linux

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an extension of CPT 201. The focuses of this class are proper system management and administration, and an introduction to using Linux servers to fulfill the networking needs of a typical small business or school system. Students will configure Linux server systems such as DNS, DHCP, Web, Mail, servers, routers, firewalls and file and print servers. Prerequisites: CPT 201.

## CPT 225 Advanced PC Repair

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wk

The second of a series of two courses, instruction is designed to prepare students for A+ Certification. *Prerequisite:* CPT 147 or one year's experience with PC repair and installation.

## CPT 227 Intro to Virtual Machines

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The class will introduce students to the virtual machine environment. They will get the opportunity to utilize the main virtual environment options and create their own virtual networks. Students will work within the 3 main virtualization platforms throughout this course. They will get exposure to the utilization of virtual machines and virtual networks within the business environment.

## CPT 235 Introduction to Networking

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an introduction to core network fundamentals. It will provide students with the ability to design, install, maintain and troubleshoot computer networks. Students will be expected to demonstrate an understanding of a wide variety of network cabling, components and architecture. Identification of the seven-layer OSI (Open Systems Interconnection) model, and how it interacts vertically and horizontally with other networks will also be required. The introduction and appropriate use of network protocols and network services will be introduced in this course. Note: Network administration covering Software, Servers, Services, Domains, Workgroups and Users will be covered in CPT 266 Server Administration.

## CPT 239 Advanced Networking Concepts

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a relatively advanced look at analyzing network functions from a troubleshooting perspective. Students will learn techniques required to support and troubleshoot networks on a daily basis. This course also introduces concepts

and terminology encompassing generic networking and routed WANs. Particular attention is devoted to the TCP/IP protocol and how its addressing scheme functions to provide network and host addresses and can be used to subnet a large network into more manageable segments. It will provide students with the basic abilities required to install, configure, administer, and troubleshoot equipment and TCP/IP. Students will be expected to demonstrate their expertise using a "hands-on" approach when possible. Equipment used will include servers, hubs, switches, and routers. *Prerequisites:* CPT 147 and CPT 235, or two or more years of IT work experience.

## CPT 240 Advanced Visual BASIC

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course builds on the skills learned in CPT 130. Students will demonstrate the ability to: create custom menus, work with sequential access files, string manipulation, work with variable arrays and arrays of structure, create functions, and integrate Visual Basic with an Access database. Study time outside of class will be required to complete reading assignments and homework exercises. *Prerequisite:* CPT 130.

## CPT 245 Introduction to Java Programming

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is an introductory course in Java programming. Students taking this course will learn how to create programs using the Java programming language. Skills will include writing program code, testing and debugging programming code, and compiling Java programs. Students will learn to create a variety of Java programs. This will be a hands on class, where students will learn programming concepts by creating a variety of programs.

## CPT 250 Programming in C

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is an introductory course in the applications of C, a programming language common in electronics and electromechanical engineering. The C language facilitates a structured and

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disciplined approach to Computer Program Design. Through examples, exercises and projects, students will be given the opportunity to solve real-world problems.

## **CPT 252 Web Development**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This is a broad based introduction course that will teach the fundamentals of making web pages and posting them on a Web server. The course covers the basics of using HTML, developing a web site, and registering a domain name. The students will be required to deploy a small web site on the World Wide Web. Taking a hands-on approach, students will become skilled in Web Page design, management and deployment.

## **CPT 253 Advanced Web Development**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

An intermediate course that will teach the skills necessary to expand a static web site into a data-driven, interactive website. The class will cover the basics of web-based data manipulation applications and using JavaScript based web site on the World Wide Web, hosted on a web server on campus. The class will also test these web sites using peer reviews and other quality assurance techniques, making changes to the sites as needed. Taking a hands-on approach, students will become skilled in complex web page design and data management. These competencies include advanced HTML, including Java and JavaScript. All learning will be in a lab environment where students will directly apply instructions using individual computers. *Prerequisite: CPT 252 or equivalent.*

## **CPT 256 Introduction to Game Level Design**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This elective course will provide an introduction to the process of computer game design and programming. Topics will include graphics, game engines, and their high-level APIs, behavioral control for characters, level design, game play.

Interface issues and the business, social and personal aspects of games. Classes will include lecture, seminar format and working groups. See the schedule for relevant structure and dates. Rather than focusing on programming game engines, the course deals with the development of game play using the 3D gaming engine, a commercial game engine. Students will form small teams early in the semester, pitch a level idea to the instructor and to the class, then spend the rest of the time in the course working on the development of the level itself. The final for the course will be the presentation of a working version of your level play-tested at a LAN party. *Prerequisite: CPT 130.*

## **CPT 257 Advanced Game Level Design**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This elective course is the second of two video game level design courses. It will provide an advanced look at the process of computer game design and programming. Topics will include graphics, game engines and their high-level APIs, behavioral control for characters, cut scenes, level design, game play, interface issues and the business, social and personal aspects of games. Classes will be a mix of lecture format, seminar format and working group meeting. See the schedule for relevant structure and dates. Rather than focusing on programming game engines, the course deals with the development of game play. Students will form small teams early in the semester, pitch a level idea to the instructor and to the class, then spend the rest of the time in the course working on the development of the level itself. The final for the course will be the presentation of a working version of your level play-tested at a LAN party. *Prerequisite: CPT 256.*

## **CPT 261 Computer Forensics I**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will provide a introductory understanding of computer forensics. The student will be exposed to different tools and techniques of obtaining data along with an understanding of the investigative process. Class discussions and hands-on

activities will give students a thorough understanding of crime scene processing, data acquisition, computer forensic analysis, email investigations, image and file recovery, witness requirements and report writing. *A criminal background check will be processed on students who register for this course. Prerequisite: CPT 147.*

## **CPT 266 Server Administration**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course builds on the foundations established in CPT 235 Introduction to Networking and prepares the student for a more in-depth knowledge of network communication. Students will design a network, install server software, create domains, OUs, groups, users, trusts and GPOs. Students will also create and apply user rights, privileges, file and print sharing and services. Server and data security will also be introduced. *Prerequisite: CPT 235.*

## **CPT 271 Network Security**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course establishes a strong foundation in securing networks and working with many security tools. Students will utilize firewalls, security tools, and various computer security techniques. The class enforces legal and security concepts to help computer professionals and enthusiasts prevent such occurrences. Several networking operating systems will be discussed. Students will enhance their knowledge and familiarity with these network operating systems, more advanced computer networking concepts, and security issues that surround these topics. Students will also experiment with various system services while utilizing network analysis tools. In addition, students will research computer security topics and practice gained knowledge in a controlled environment. De-mystifying the "hacking" world and providing a comfort with securing the popular network operating systems are the primary goals of this course. *Prerequisite: CPT 235.*

## **CPT 272 MS Exchange/IIS**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

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3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This class is an introduction to Internet Information Server and Microsoft Exchange Server. This class will be a fast-paced, intense study in these two subjects. Students will begin preparation for the Microsoft Certified Systems Engineer (MCSE) exams. *Prerequisites: CPT 235 and 266. CPT 266 may be taken concurrently.*

## **CPT 275 Computer Forensics II**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The class will review the basics of computer forensics while focusing on an in depth knowledge of EnCase Forensic Software. EnCase is one of the top international forensic software utilized today. It is utilized throughout the country and by our own Computer Crimes Task Force in the State of Maine. Students will complete multiple cases from the crime scene acquisition to the final report. A criminal background check will be processed for students who register for this course.

## **CPT 281 Penetration Testing**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an advanced course which will give students an understanding of network vulnerabilities and how to prevent them. Students will utilize hands-on experiences to setup and test baseline security settings on their networks. Once the vulnerabilities have been identified students will create a plan to address identified vulnerabilities to keep malware and hackers out of their networks. The final stage will be to re-test the network to verify their changes created a secure network. *Prerequisites: CPT 235, CPT 266, and CPT 271. A criminal background check will be processed on students who register for this course.*

## **CPT 283 OS Hardening**

3 credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will focus on an in-depth analysis of multiple operating systems and the security components that each feature. In addition to analysis of various industry standards, students will gain hands-on experience with the components that allow for access controls and security audits. Students will examine, plan, and implement

appropriate access controls. These controls will focus on the ever-changing landscape of access technology, including the areas of: software, website, mobile devices, database access, and IoT.

## **CPT 286 Security Analysis**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students will gain hands-on experience detecting and planning for risk aversion. Utilizing multiple tools and technologies, students will manage the vulnerability of a simulated real-world system. Students will plan implementation and testing teams focusing on the scope of work to be completed. Students will be responsible for the appropriate testing mechanisms and developing a usability report for the testing that was implemented. Students will look at system exposure, attack methods, and defenses along with how to mitigate these risks.

## **CPT 287 Database Security**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students will design databases with security at the forefront. Utilizing an industry recognized database system, students will implement coding and management techniques to mitigate the major concerns of database security issues. Security models and programming life cycles will be utilized. A database security policy will be developed for addressing security issues. Students will gain an understanding in the use of protocols, processes, secure access, as well as verification and validation in securing databases.

## **CPT 288 Incident Handling and Response**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students gain experience in the art of utilizing industry standards to identify and respond to security breaches. Students will look at the planning process as well as the implementation of plans in the areas of Business Continuity. These plans would include sub-plans in incident response, disaster recovers, contingency planning. Within the plans students focus on threats, team members, backups, facility options, testing as well as maintaining the plans and policies.

## **CPT 289 Mobile Device Forensics**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will provide students with hands-on experience working with mobile device seizures and analysis. Multiple software products will be utilized to work through cases. Mobile vulnerabilities and risks will be researched as well as utilizing appropriate security model applications.

## **CPT 290 Introduction to Cyber Security**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The focus of this course is on the protection of the network by detecting and preventing threats. Utilizing an understanding of network fundamentals, students will design and implement a secure network. Utilizing industry recognized software and hardware devices to secure the network and establish a secure perimeter. Hands-on exposure to: VPN, firewall, intrusion detection, wireless devices and settings will give students a strong foundation in securing a network.

## **CPT 296 Topics in Information Technology**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students taking this course will explore selected topics in Information Technology that are relevant at the time of delivery. This course will not address subject matter currently offered within other CPT courses. Since the topics will change from year to year, students should check with the instructor to obtain more in-depth information on the topic offered for that given time period. *Prerequisites: CPT 235 and 2nd year standing.*

## **CPT 297 Field Experience (Internship)**

3 Credits - Number of hours per week to be determined by Advisor

This course is designed to provide the student with field experience in an actual workplace under the supervision of an information technology professional. Sites for this practical must be arranged prior to course registration.

# Course Descriptions

## Criminal Justice (CRJ)

All students taking Criminal Justice courses will be subject to a criminal background check.

### CRJ 101 Introduction to Criminal Justice

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to provide an overview of the legal system in America, including the history and evolution of law enforcement and the criminal law, to the present status of the criminal justice system. Topics discussed will include the purposes and goals of the criminal justice system; the history and evolution of the criminal law and the legal process; the role of law enforcement in a democratic society; the balancing of individual rights versus the protection of society; the manner in which the criminal justice system confronts terrorism; and the development and current status of justice policy. The course will examine in significant detail the three primary components which comprise the criminal justice system: law enforcement, adjudication, and corrections. Juvenile justice and its purposes and goals will also be discussed. A criminal background check is required for all CRJ courses.

Students must earn a C or higher in order to continue to other CRJ courses which have a prerequisite of CRJ 101.

### CRJ 110 Introduction to Corrections

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to provide an overview of the historical background of corrections. Topics discussed will include: the goal and purposes of corrections; the various past and current philosophies of corrections; the concepts and issues that determine the necessity for the development of the Maine Correctional Standards; the legal issues in corrections; the principles and issues of the Constitutional Law as it pertains to the 1st, 4th, 8th, and 14th Amendments and the rights of inmates; the structure and functions of incarceration; Probation and Parole Agencies, Management and treatment programs; and the differences between.

### CRJ 122 Criminal Law and Report Writing I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course deals with the application and philosophy of criminal law, with a focus on the applicability of the statutory law. The goals and purposes of the criminal justice system will be examined. The formulation of the substantive law and limitations on that authority will be studied.

### CRJ 201 Civil Liberties

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course examines the constitutional aspects of the American criminal justice process, including search and seizure, arrest, interrogation, trial and appeal.

### JUS 204 Victimology

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course presents a comprehensive and balanced exploration of victimology, a vital new and, at times, controversial branch of criminology. This course examines the victims' plight, and is careful to place statistics from the FBI's Uniform Crime Reports and Bureau of Justice Statistics National Crime Victimization in context. This course systematically investigates how victims currently are handled by the criminal justice system, analyzes the goals of the victims' rights movement, and discusses what the future is likely to hold. Also discussed will be: human trafficking, crimes on campus, identity theft, stalking, motor vehicle theft, and prisoners attacked behind bars.

### CRJ 209 Terrorism & Homeland Security

3 Credits (3 Lecture 0 Lab)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 weeks

This course provides a theoretical and conceptual framework to allow the student to understand how terrorism arises and how it functions. It discusses sophisticated theories presented by some of the best terrorist analysts in the world, while also focusing on the domestic and international threat of terrorism and the basic security issues surrounding terrorism today. The course also gives essential historical (pre-

1980) background on the phenomenon of terrorism and the roots of contemporary conflicts, including detailed descriptions of recent conflicts shaping the world stage, and covers theoretical and concrete information about Homeland Security organizations.

### JUS 210 The Juvenile Justice System

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will examine the Juvenile Justice system in America, including its history, philosophy and development, along with future challenges the system must confront. The rights of Juveniles in the American Juvenile Justice System will be thoroughly explored and discussed. Differences between the adult criminal system and juvenile offender treatment will be analyzed. The problems facing youth as well as the impact of cultural, sociological and other forces will be examined. Other societies' treatment of youthful offenders will be compared and contrasted with the American system. Appropriate punishment of juvenile offenders, including community programs and institutionalization, will be studied. The class will explore in depth the challenges facing the juvenile justice system and discuss ways in which the system might be improved and advanced. Other modalities such as outside speakers, films and/or field trips may be utilized during the course to assist students in more fully integrating the concepts explored.

### CRJ 212 Criminal Investigation and Report Writing II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to teach students proper methods in which to prepare a case for possible court presentation. Included in the course will be appropriate information gathering techniques; report writing; and pre-court preparation. Proper courtroom procedures, witness styles and behavior will also be discussed. *Prerequisites:* CRJ 101 with a grade of C or higher and CRJ 122.

### CRJ 220 Police Operations

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is concerned with providing the



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student with an understanding of the role police play in today's society. *Prerequisite:* CRJ 101 with a grade of C or higher.

## **CRJ 225 Race and Ethnicity Issues in Law Enforcement**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The course examines the impact of cultural diversity on law enforcement to include a discussion of cultural awareness, bias, prejudice, training, recruitment and cross cultural communication. Police challenges in engaging with specific racial/ethnic groups are examined, to include Asian/Pacific Americans, African-Americans, Latino/Hispanic Americans, Arab Americans, Native Americans and others. Homeland security concerns, racial profiling and hate crimes are also addressed.

## **CRJ 227 Crime Scene Photography**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course covers the general principles and concepts of crime scene photography, while also delving into the more practical elements and advanced concepts of forensic photography. Topics such as composition, exposure, focus, depth of field and flash techniques will be explored. Lecture and practical exercises will center around photographing a crime scene, documentation of bodies and wounds, traffic accident photography, underwater photography and aerial photography. *Prerequisite:* CRJ 101 and access to a 12 megapixel or higher digital camera.

## **CRJ 231 Death Investigations**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an introductory course in conducting death investigations. Components of this course include: initial response and scene evaluation; recovery of human remains; wound dynamics and mechanisms of injury; manners of death including asphyxiation; sharp force, blunt force and chopping injuries; handgun, rifle and shotgun wounds; explosive, thermal and electrical injuries; infant and child death; sex-related death; death scenes with multiple victims; death scene management; and death scene evidence processing. *Prerequisite:* CRJ 101 with a grade of C or higher.

## **JUS 232 Criminal Psychology**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an examination of psychology of human behavior as it relates to crime. This course will assist the student in understanding the factors that contribute to criminal behavior in order to determine appropriate intervention strategies. Emphasis will be placed on origins of criminal behavior, aggression, psychopathy, crime and mental disorders, homicide, and sexual assault. Biological, psychological, educational and situational factors are examined to assess behaviors, patterns, and motivations.

## **JUS 245 Criminology**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will define crime and evaluate the various ways crime is measured. Students will be provided with an overview of the more popular criminological theories, emphasizing the biological, psychological and sociological schools of thought. In addition, crime control and prevention strategies as they relate to each theory will be examined in terms of theory, practice and effectiveness.

## **CRJ 250 Criminalistics**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This class examines the techniques of crime scene investigation and basic evidence collection techniques. Once potential evidence has been identified at a crime scene it must be secured, documented and properly collected. The course will include lecture and actual crime scene search and evidence collection. The laboratory analysis of the following will be covered: glass, soil, organic and inorganic substances, hairs, fibers, paint, drugs, poison, arson and explosive evidence, serology, DNA, fingerprints, firearms, tool impressions, miscellaneous impressions, photography, document and voice examinations. Emphasis is added to the challenges that "special victims" present to investigators.

## **CRJ 257 Community Policing**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will present a modern-day perspective on the evolving partnership

between police and citizens in solving community problems. The subject matter will include a balance of theory and hands-on practice, and students will engage in supervised team-building activities with youths who participate in the Auburn Police Activities League (P.A.L.). We will explore how law enforcement serves as a safety net for a variety of social issues, and students will be exposed to some of the community resources utilized by police agencies. *Prerequisite:* CRJ 101 with a grade of C or higher.

## **CRJ 260 Organized Crime**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course provides a thorough introduction to the structure, history and the criminological impact of organized crime on society.

## **CRJ 275 Crime Scene Management**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course examines the expanded role of the crime scene investigator with regards to collecting and preserving evidence, both on a small and larger scale. Inter-agency cooperation and multi-jurisdictional considerations will be explored as well as changing techniques and trends in the forensic disciplines.

## **CRJ 280 Effective De-escalation Concepts**

6 Credits (6 Lecture 0 Lab 0 Shop)  
6 Hrs/Wk (6 Hrs. Lecture) \*15 wks

This course introduces students to strategies for maintaining professional demeanor and de-escalation in heightened law enforcement encounters. Students will learn to identify indicators of aggression, and methods to bring about peaceful resolutions when addressing hostile individuals in law enforcement settings. *Prerequisite:* Matriculated in the Advanced Certificate in Police Operations.

## **CRJ 291 Fitness Training for Law Enforcement**

6 Credits (6 Lecture 0 Lab 0 Shop)  
6 Hrs/Wk (6 Hrs. Lecture) \*15 wks

This course consists of an intensive physical regimen designed to prepare students for

# Course Descriptions

the Physical Fitness Test (PFT) administered by the Maine Criminal Justice Academy. Topics that will be covered include develop healthy lifestyles around shift work, stress management, mental agility, personal safety, burnout, and nutrition for optimal performance in police work. Students will maintain a fitness and nutrition journal to help develop positive lifestyle habits.

## **CRJ 292 Advanced Police Operations**

*6 Credits (6 Lecture 0 Lab 0 Shop)  
6 Hrs/Wk (6 Hrs. Lecture) \*15 wks*

This multi-disciplinary course will explore the paramilitary structure of law enforcement agencies and disciplines critical to police operations including; criminal law, ethics, crime scene management, interviewing and interrogation techniques, the incident command system and inter-agency cooperation.

## **CRJ 293 Defensive Tactics**

*6 Credits (6 Lecture 0 Lab 0 Shop)  
6 Hrs/Wk (6 Hrs. Lecture) \*15 wks*

This course provides an overview of the basic Defense Tactics used in law enforcement today. The course will present real world techniques used in present day situations that officers will most likely encounter in their everyday performance of duties. Along with the physical techniques taught will be a fundamental understanding of state laws pertaining to the use of force as well as an essential need for physical and mental fitness necessary to be prepared for Use of Force situations.

## **CRJ 294 Field Practical**

*6 Credits (6 Lecture 0 Lab 0 Shop)  
6 Hrs/Wk (6 Hrs. Lecture) \*15 wks*

Students will utilize the knowledge base of criminal law, tactical patrol skills, police report writing, crime scene management, and interview and interrogation techniques, and put these concepts into practice in real-world practical settings. This course builds upon the skills and principles learned in Advanced Police Operations.

## **CRJ 297 Criminal Justice Internship**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

In this course, a student is placed with a

criminal justice agency and is supervised by the criminal justice internship coordinator. To participate in the internship, students must have completed at least two semesters and be in their second year at Central Maine Community College. Students must have a minimum 2.5 grade point average.

## **Culinary Arts (CUA)**

### **CUA 100 Introduction to Culinary Arts**

*2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)\*4 wks*

This course will show students the fundamental workings of the professional kitchen. Safe knife handling techniques will be discussed in great detail as well as the importance of knife skills. Fabricating chickens and making white and dark stocks will be covered as well as the best ways to use each. Cooking eggs will also be explored, learning a minimum of four different cooking methods used in the common breakfast restaurant and the major components of breakfast will be taught.

### **CUA 105 Fundamentals of Baking**

*2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks*

This class will familiarize students with the commercial bake shop and the equipment and ingredients used most often. Production done within the class will help students better understand the need for accurate measuring, proper mixing and scaling of recipes. Methods and techniques will include the production of lean and rich yeast breads, quick breads and basic cookies and bars.

### **CUA 110 Techniques of Cooking**

*2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks*

This course will use techniques for making stocks and turn them in to soups, chowders and sauces. French techniques will be a large part of this course, learning the five classical Mother Sauces and the seven

classical cooking methods will be the main focus of this class. Understanding starches and how to properly cook vegetables will also be covered. *Prerequisite: CUA 100.*

### **CUA 115 Baking Principles and Presentations**

*2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks*

In this course students will continue to explore the basics principles of baking and enter the world of desserts. Using what they learned from the previous course and begin turning that knowledge into dessert quality items. Popular desserts will be explored including pies and tarts, Cheesecakes and cream puffs or éclairs. An understanding of plate presentation will also be pursued. Learning the different sauces and how to properly construct a dessert presentation with both plated and buffet items.

*Prerequisite: CUA 105.*

### **CUA 121 Food Preparation Sanitation**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course stresses the importance and use of sanitary practices used in kitchen work. Proper storage and temperature control of perishable foods as well as methods of freezing food to slow down the growth of bacteria are studied. Maine laws governing eating and lodging establishments are reviewed. Students who successfully complete this course may apply for certification from the National Restaurant Association Educational Foundation's servsafe exam.

### **CUA 150 Introduction to a La Carte**

*2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks*

This course will concentrate on the behind the scenes actions that need to be taken to make a successful restaurant. Menu creation, menu planning, recipe costing, purchasing, cooking and presentation will all be covered. We will also start breaking down common fish bought whole and learn how to effectively break down primal and sub primal cuts of beef. *Prerequisite: CUA 110.*



# Course Descriptions

## CUA 152 Specialty Foods

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

This course will culminate the students experience and require them to use all they have learned. We will explore several of the special diets and allergies that many chefs work around on a daily basis. International cuisines will be discussed, what methods they use and what makes their foods different from others. Simple wines will be discussed, talking about nose, legs, color, grape varieties and pairings.  
*Prerequisite: CUA 150.*

## CUA 154 Introduction to Cakes and Recipe Alterations

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

Students will begin learning the craft of cake making and decoration of simple cakes. Methods used to make cakes and different types of icings will be the focus of the course. Students will begin with simple decorations, borders, and masking techniques. The growing need for altering recipes for specialty diets will be explored.  
*Prerequisite: CUA 115.*

## CUA 156 Pastries and Contemporary Desserts

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

This course focuses on the more complex desserts, dessert components and trends. Students will learn to make laminated doughs as well as popular pastries including croissants, bear claws, bismarcks, tarte tatin, cream horns and others.  
*Prerequisite: CUA 154.*

## CUA 171 Nutrition and Food Quality

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
A study of the relationship between food and health. The importance of balanced and well-prepared meals is emphasized through study of the functions of carbohydrates, fats, protein and fiber in the diet. Students learn how to develop standardized menus and recipes, and how to prepare high protein foods such as meat, fish and poultry.

## CUA 210 Butchery

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

Students will learn the skills used to fabricate meats, poultry and fish, along with the proper sanitation and storage. Field trips will be part of the class, traveling to local farms and butcher shops to see the fabrication process with whole carcasses of beef, pork and poultry. An introduction to charcuterie with fresh sausage and confits will be also be explored.

## CUA 212 International Cuisine

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

Students will have a unique opportunity to look at cooking styles, techniques and seasonings from around the world. North America, Mediterranean, Asian, European and local ethnic cuisines will be explored. Students will be encouraged to compare various cuisines and identify the differences of styles and techniques between them.

## CUA 214 Petit Fours and Artisan Breads

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

Students will have the opportunity to learn about varieties of petit fours and how to construct them. Macarons, cookies and simple petit fours are also a focus. Making jams, jellies and preserves with and without the use of commercial pectins will be discussed. As well as the proper methods of preservation through canning. Artisan breads will be covered including how to make sourdough starter and pre ferments.

## CUA 216 Food and Beverage Purchase

3 Credit (3 Lecture 0 Lab 0 Shop)  
3 Hr/Wk (3 Hrs. Lecture) \*15 wks  
This class provides a basis for understanding the various challenges and responsibilities in developing an effective food and beverage control system, including standardizing recipes, cost-volume-profit analysis, inventory control and event ordering.

## CUA 250 Modern Cooking

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

Trends in the industry will be explored as well as the methods of cooking that are starting to emerge such as sous vide, the art of smoking meats and molecular gastronomy. Recipe alterations and specialty diets will be examined to keep up with some of the more common diets: gluten free, vegan, clean eating, raw and farm to table.

## CUA 252 Advanced Cakes

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

A deeper look into techniques used to decorate cakes will be a highlight of this course. Students will gain skills in making new frostings as well as frosting decorations. Rolled fondant will be used to help students gain skills on this widely popular form of cake decorating. Advanced cake types will also include elegant mousse cakes and traditional world cakes.  
*Prerequisite: CUA 154.*

## CUA 254 Advanced a La Carte and Service

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

This class focuses on a la carte cooking and working on a line as well as service in a higher end establishment. Students are responsible for making and executing menus. Wine tasting and pairing will be explored. *Pre-requisite: CUA 150.*

## CUA 256 Chocolates Confections

2 Credit (.5 Lecture 1.5 Lab 0 Shop)  
14 Hr/Wk (2 Hrs. Lecture 12 Hrs. Lab)  
\*4 wks

This course is designed to build a basic understanding of chocolate work. Students will gain skill and understanding in chocolate tempering. Students will have an opportunity to create chocolate confections including bon bons, fudge, cordials and experiment with hard candies. Frozen desserts including ice cream, frozen custards, gelato and sorbets will be explored.

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## CUA 297 Internship

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The students in this course will be placed in the restaurant industry and will be supervised by an internship coordinator. To participate in the internship, students must have completed at least two semesters and be in their second year at Central Maine Community College. Students must have a minimum 2.0 grade point average.

## CUA 299 Externship

4 Credits (0 Lecture 0 Lab 4 Shop)

12 Hrs/Wk (4 Hrs. Shop) \*15 wks

This course provides the student with field experience in a workplace under the supervision of a culinary professional. Sites for this internship must be arranged prior to course registration. *Prerequisites:* Minimum GPA of 2.0 and approval of program advisor or department chair.

## Early Childhood Education (ECE)

### ECE 100 Introduction to Early Care and Education

3 Credits (3 Lecture 0 Lab 0 Field Exp.)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course provides an overview of all aspects of the professional field of Early Childhood Education, including the history, terminology, and career options of the field. Also discussed are diverse programs for young children, qualities and skills of caregivers, health/safety and regulatory requirements of programs, principles of child development and partnerships with families.

### ECE 105 Infant and Toddler Curriculum

3 Credits (3 Lecture 0 Lab 0 Field Exp.)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

All domains of development will be reviewed pertaining to the child between birth to three years. This review will be used as the context for developing philosophy, goals and objectives for planning and providing appropriate environments and individualized curriculum. Students will discuss best ways to build relationships with children, nurture themselves as caregivers,

and to build successful partnerships with parents. *Prerequisites:* ECE 100; *Corequisite:* ECE 147.

### ECE 113 Curriculum and Environments for Young Children

3 Credits (3 Lecture 0 Lab 0 Field Exp.)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The physical, social, emotional, cognitive and language development of young children age 3-8 years will be reviewed in this course, as a basis for developing philosophy and goals for curriculum planning and development. Students will discuss and observe the diversity of learning styles, as well as ways to assess and evaluate development on an ongoing basis. The design of developmentally appropriate learning environments will be presented, and students will participate in hands-on experiences and assignments throughout the course. *Prerequisites:* ECE 100 and PSY 114; *Corequisite:* ECE 297.

### ECE 150 Language and Literacy for Young Children

3 Credits (3 Lecture 0 Lab 0 Field Exp.)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students will be introduced to how children acquire and develop language during the early years. The roles of the teacher in assisting children through the stages of language and communication development will be discussed. Developmentally appropriate ways to promote emerging literacy and to select and use excellent children's literature while working in partnerships with families, will be integral parts of this course.

### ECE 147 Infant and Toddler Field Work & Prep

3 Credit (1 Lecture 0 Lab 2 Field Work)

3 Hrs/Wk (3 Hrs. Field Work) \*15 wks

The student will visit, on a weekly basis, a child care setting where infants and/or toddlers (birth-3 years) receive care. Specific techniques for observing and recording children's behavior will be required during these visits, and as the student becomes comfortable with the setting, he or she will also assist the staff in providing appropriate care and education to the children. Each student is responsible for arranging a schedule and transportation

that will assure the completion of the required number of hours at this site. *Prerequisites:* ECE 100; *Corequisite:* ECE 105.

### ECE 203 Teaching Mathematics to Young Children

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces ECE students to the extensiveness of math experiences in programs for young children. Students will learn to create a developmentally appropriate math curriculum for preschool and primary school age children. This course will introduce the students to the guidelines and standards of mathematics for young children through NAEYC, NCTM, and the State of Maine Learning Guidelines. *Prerequisites:* Completion of a Level 100 Math course.

### ECE 204 Creative Arts and Creativity for Young Children

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course offers an overview of developmentally appropriate ways to understand and promote creative development, including technology, with children between three through eight years of age.

### ECE 205 Education of Children with Special Needs

3 Credits (3 Lecture 0 Lab 0 Field Experience)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course explores the meaning and practices of inclusive early childhood programs, as well as the history of legislation and regulations that have had an impact on early intervention. The student will learn the process of observing and referring children to community agencies, working in conjunction with parents. Ways to design appropriate learning environments, create curriculum with children, and evaluate children's development will be included in this course. *Prerequisites:* ECE 100 and PSY 114.

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## **ECE 208 Teaching Social Studies to Young Children**

3 Credits (3 Lecture 0 Lab 0 Field Experience)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will focus on developmentally appropriate social studies for children from 3 to 8 years old. Student will develop a philosophy, goals, activities, and a social studies curriculum for young children based on the Maine Early Learning Developmental Standards and the National Common Core Standards for Social Studies. *Prerequisites:* ECE 100 or currently an in-service teacher.

## **ECE 250 Literacy for Infants and Toddlers**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course focuses on learning and development research and the document Supporting Maine's Infants and Toddlers: Guidelines for Learning & Development as a basis for effective language and literacy instruction for children from birth to 36 months of age. Students will design and implement effective learning opportunities for young children based upon this information which will include the most current information on brain development. *Prerequisite:* criminal background check.

## **ECE 297 Pre-School Field Experience**

3 Credits (1 Lecture 0 Lab 2 Field Experience); 6 Hrs/Wk (6 Hrs Field Experience)

The student will observe and assist in an approved pre-school setting during the semester, under the supervision of an experienced early childhood professional. The student will be expected to apply the theory, ideas, and developmentally appropriate activities learned in ECE 113 to the work at the field experience site. Interactions that support a professional relationship between parents and early childhood educators will be expected to be practiced. Each student is responsible for arranging a schedule (usually morning) and transportation that will assure the completion of the required number of hours and assignments for this course. *Prerequisites:* ECE 100, ECE 105, ECE 147, and PSY 114. *Corequisite:* ECE 113.

## **ECE 298 Capstone in Early Childhood Education**

6 Credits (2 Lecture 0 Lab 4 Field Experience)

14 Hrs/Wk (2 Hrs. Lecture 12 Hrs. Field Experience) \*15 wks

As a final practicum Field Experience, students will work in an approved early childhood setting under the supervision of experienced professionals. Students will choose the age range of children for their work, and will also attend seminars with the course instructor to discuss their experiences and professional portfolios. Evidence of student's ability to relate theory to practice must be clear when the instructor visits the Field Experience site while the student is working. The student is responsible for arranging a schedule and transportation that will assure the completion of the required number of hours and assignments for successfully completing this course. *Prerequisites:* ECE 100, ECE 105, ECE 113, ECE 147, ECE 150, ECE 205 and ECE 297.

## **Economics (ECO)**

### **ECO 201 Introduction to Macroeconomics**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is intended to introduce the student to the macro aspects of the economy such as demand and supply, national income, unemployment, inflation, business cycles, aggregate spending, fiscal policy, monetary policy, money and banking, economic growth and international trade. This course promotes an understanding of the economic environment in which businesses operate.

### **ECO 202 Introduction to Microeconomics**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is intended to introduce the student to the analysis of individual markets: the functioning of prices in a market economy, economic decision making by producers and consumers and market structure. Topics discussed include consumer preferences and consumer behavior,

production theory and production costs, resource pricing and the monopoly firm. Additional topics are determined by individual instructors.

## **Education (EDU)**

### **EDU 101 Introduction to Education**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This survey course will introduce the student to education in America and the basic elements of its structure. The course will explore education's history, examine the role of public education in a democracy and identify current trends affecting education today. The course will also examine the relationship between education and society to analyze the impact they have on each other. The course will emphasize the role of educational staff in the contemporary schools environment.

### **EDU 150 Pathways to Teacher Certification**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will prep students seeking Teacher Certification by combining an understanding of the Maine State Teacher Standards, practical experience in a public school classroom through job shadowing and PRAXIS I study skills strategies and practice. Students will begin to develop a professional portfolio.

### **EDU 185 Fundamentals of Educating Students with Special Needs**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will survey a variety of special needs issues including condition syndromes, common limitations, mitigation strategies, adaptive equipment and frequently suggested accommodations. This course examines the fundamentals of working with students identified as having special needs and includes an overview PL 94-142 of IDEA and 504 guidelines. Students will study the referral process, evaluation methodologies, the PET process, IEP implementation strategies, transition plans, least restrictive environments, inclusion and other current principles in the field.

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## **EDU 220 Physical Activity and Nutrition for Students K-12**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will provide students information and resources on the effect of physical activity and healthy nutrition on children's readiness to learn in school, and provide opportunities to develop ways to integrate this information through activities in the classroom.

## **EDU 222 Social Justice and Diversity in the Classroom**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The purpose of this course is to provide students an opportunity to explore the issues of diversity and social justice and how to cultivate an inclusive classroom PK-12.

## **EDU 280 Mindfulness for Student, Family and Self**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Mindfulness is the ability to be aware of what is going on inside of you and the world around you. Students will learn about mindfulness and how it can help them as a professional. Students will learn how to teach children about mindful and brain knowledge techniques through their curriculum, and ways to communicate with parents about the positive effects of mindful practices at home.

## **EDU 282 Adverse Early Childhood Experiences & Resilience**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students learn about the research related to the knowledge that adverse early childhood experiences can negatively impact health. They will learn strategies to support resilience building. They will use this knowledge to help them better understand themselves, students and parents. They will participate in ways to use this knowledge to help children and families.

## **EDU 284 Guidance and Self-Regulation**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students will learn and practice a variety

of techniques to help children learn self-regulation through evidenced-informed guidance and mindful, respectful discipline. Students need to be working with a child or classroom of children.

## **EDU 286 Nutrition, Gardening and Cooking with Students**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students will learn about the USDA standards surrounding food served in schools and centers. Participants will explore the ideas of teaching nutrition, through preparation of food in a school garden/learning environment with children.

## **EDU 288 Self Care and Thriving**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will enable students to identify the signs of "teacher/caregiver burn out", which is an occupational hazard of educators; and use research and resources to identify ways to increase personal resiliency and build organizational networks of support.

## **EDU 290 Strategies, Styles and Habits of Mind**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Students will be introduced to research proven strategies, as a way to enhance student learning outcomes in their classrooms. Learning styles and multi intelligences will be discussed as a way to be mindful of all the ways our students learn, and how teachers can provide many opportunities for learning. The habits of mind, are ways in which students approach areas of knowledge and methods of inquiry, and will be introduced to the students with ideas on how to practice these areas with their students. See admission requirement.

## **Electromechanical Technology (ELT)**

## **ELT 101 Electricity I**

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab )  
\*15 wks

This is the students' first course in electricity. Atomic structure and units of electrical charge are covered as they apply to D.C. circuits. Test equipment includes voltmeters, ammeters, ohmmeters, power supplies and oscilloscopes. Problem solving techniques will be developed using a basic model of problem analysis. Particular emphasis is placed on Ohm's Law, Kirchoff's voltage and current laws, series, parallel, series-parallel circuits, magnetism, and basic DC ammeter and voltmeter design. The student will learn advanced techniques such as Superposition, Norton, Thevenin, and Millman's theorems used in trouble-shooting complex circuits and networks. The course will provide a foundation for future studies in the electrical and electronics areas.  
*Corequisite: MAT 100 or MAT 122.*

## **ELT 115 Electricity II**

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab )  
\*15 wks

This course will prepare the student in the areas of logical analysis, testing, and trouble-shooting. This course is essential for the student's understanding of electricity and is a foundation for the study of more advanced courses. Necessary test equipment including oscilloscopes and signal generators will be covered in this unit. Proficiency in the use of test equipment and AC concepts used in troubleshooting circuits will be demonstrated by the student through hands on laboratory experimentation. Particular emphasis is placed on inductance, capacitance, magnetism, transformers, impedance matching, resonance, phase angle, and frequency effects in reactive circuits. The student will learn advanced circuit analysis techniques using vector analysis and the j operator. *Prerequisite: MAT 122 or MAT 100 and ELT 101.*



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## ELT 117 National Electrical Code I

3 Credits (1 Lecture 1 Lab 0 Shop)  
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) \*15 wks

This course is a study of the first half of the latest National Electrical Code, NEPA 70. It offers electricians an understanding of how the NEC is organized and provides information on proper electrical installations. Students will review and research code rules pertaining to chapters 1 through 4. This course can be used as the code requirement to sit for the Electrician's Exam.

## ELT 123 Electrical Controls I

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This course is a study of the functioning of electrical devices that are primarily used for manual switching of circuits such as piloted single-pole switches, Eagle three-way switches, four-way switches, momentary relays, and latching relays. Emphasis is placed on methods of wiring these devices into a wiring system following NEC procedures and interpreting blueprints and schematics. Applications include wiring switches to control lights and receptacles. Complete switching systems are formed by wiring together electrical equipment such as timeclocks, photoeyes, and relays. Single-phase transformers are used to step-up, step-down, and buck/boost voltages. DC motors are tested and connected for specific direction of rotation and speed. *Corequisite: ELT 101.*

## ELT-145 Electronics I

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This first course in Analog electronics is a study of semiconductor theory, PN diodes, and Bipolar transistors. These devices are analyzed by the use of 'r' parameters, Load-Line Analysis, and the Ebers-Moll Model. Equivalent circuits are derived using Thevenin's and Nortons's theorems. Particular emphasis is placed on I / V characteristics, method of biasing, and selection of replacement devices. Diode applications include filtered rectifiers, limiters, clippers, and Zener voltage regulation. Bipolar transistor applications

include current sources, transistor switches, and an introduction to CE amplifier. *Corequisite ELT 115.*

## ELT 153 Digital Logic

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This course is a study of the basic principles of TTL integrated circuits, and their applications in digital systems. This includes the use of logic gates, flip-flops, counters, shift registers, decoders, multiplexers and demultiplexers. In addition, we will cover IC terminology, specifications, circuits and troubleshooting. Other logic families besides TTL will be introduced. Electronic Workbench will be used for Boolean algebra and to simulate circuits. There will be an introduction to the use of oscilloscopes for the purpose of testing and troubleshooting. *Corequisite: ELT 101.*

## ELT 201 Communications Electronics

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This course will ensure that the student can recognize, construct, analyze, troubleshoot, repair and modify data telecommunications equipment and circuitry. The course starts with the basics of microprocessors then proceeds to terminals, computer IO, data transmission and modems analyzing how electronics circuits accomplish these tasks. The course then continues with the study of ethernet LANs, the OSI reference model, the internet and TCP/IP. *Prerequisite: ELT 153; Corequisite: ELT 145.*

## ELT 221 Industrial Controls

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This course is a study of electro-magnetic controls, their applications in automated industrial systems and how to interface them with intelligent controllers. This includes the usage of I.E.C. and NEMA magnetic starters, overload heater selection, push button, timers, counters, and intelligent controllers. Particular emphasis is placed on ladder diagrams, designing and wiring control circuits, article 430 of the NEC, programming of an AC frequency Drive. Three phase distributors and three phase

motors are also covered. *Prerequisites: ELT 115, 123, and 153.*

## ELT 222 Programmable Controls

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This course is a study of Programmable Logic Controllers (PLCs), which monitor electrical inputs and in turn controls outputs to automate a process or machine. Particular emphasis is placed on ladder logic programming. Programs are created using PLC instructions that are categorized by function: Relay logic, timers, counters, data-manipulation, arithmetic, data-comparison, data-transfer, and program control. Students set up hardware addressing on PLC racks/modules and verify physical wiring of real-world devices. They establish communications between a computer and a PLC processor using Rockwell's RSLink software. Ladder logic programs are written for Allen Bradley's PLC5 programmable controller using RSLogix5 software. Application includes the control of electric motors and industrial control circuits. Advanced topics include remote I/O communications and analog output control of AC frequency drives. *Prerequisite: ELT 221.*

## ELT 231 Process Measurement

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This course is designed to prepare the student in the areas of logical analysis, troubleshooting technique, problem solving, maintenance, and function of industrial primary sensing devices. The study of various instrumentation used in process controls (control elements) are evaluated. Particular emphasis is placed on the theory and application of pressure, flow, level, density, humidity, and temperature measurements. Labs are designed to show the functionality of the various types of sensing devices, how they operate, and their integration to system control. *Prerequisites: ELT 115 and 145.*

## ELT 232 Process Control

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) \*15 wks

This course is a continuation of

# Course Descriptions

Process Measurement and explores the characteristics of common feedback control loops. The mechanisms for an application of various process control systems with different algorithm for control are explored. The dynamics of centrifugal pumping, TDH (total dynamic head) and system curve analysis are plotted and evaluated. Single control loops using temperature controllers along with digital chart recorders are used to show proper PID (proportional integral and derivative) tuning. Controller tuning with dead time, overshoot and proper decay ratios are studied using Ziegler-Nichols closed loop and open loop tuning. Many types of elements, (sensing and actuating) are evaluated for proper industrial applications. The student will be able to demonstrate proficiency in the process control fundamentals, and techniques in the lab. *Prerequisites: ELT 231 and 245.*

## **ELT 245 Electronic Devices II**

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab)  
\*15 wks

This course is a study of Bipolar Junction Transistors (BJTs), Field Effect Transistors (FETs), and their circuit applications, including amplifiers. Bipolar CE amplifiers are examined for voltage gain, loading and frequency effects. CC amplifiers are used for current gain and buffering. Large-signal amplifiers include Class A, B, and C power amplifiers. FETs are studied with emphasis placed on transconductance curves, parameters, and bias stability. Depletion and Enhancement Metal Oxide Semiconductor Field Effect Transistors (MOSFETs) are also covered. Thyristor theory includes Silicon Control Rectifiers (SCRs) and Triacs. *Prerequisites: ELT 115 and 145.*

## **ELT 246 Linear Integrated Electronics**

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab)  
\*15 wks

The goal of the course is to ensure that the student can recognize, construct, analyze, troubleshoot, repair and modify common operational amplifier circuit application. Differential amplifiers are discussed to introduce the students to the inner-workings of integrated circuit operational

amplifiers. Students will then progress through the theory of inverting and non-inverting amplifiers; summing amplifiers; signal; active filters; comparators; integrators and differentiators; logarithmic amplifiers; oscillators; and 555 ICs. *Prerequisite: ELT 245.*

## **ELT 271 Industrial Robotics**

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab)  
\*15 wks

This course is a study of industrial robotic systems. Students examine practical applications typically found in automated industries. Particular emphasis is placed on microcomputer programming of a robot manipulator. A Teach Pendant is used to manually operate an industrial robotic arm. Visual BASIC, and ASCII editors are used to program robots in the native language. This course examines industrial robot terminology, manipulator arm geometry, robot classification, work envelope, and end-effectors. Parallel and serial personal computer communication is included. *Corequisite: ELT-221.*

## **ELT 276 Automation Systems**

2 credits (1 Lecture 1 Lab 0 Shop)  
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) \*15 wks

This course focuses on advanced applications of robotics and automation in industry. Students will write programs to control industrial robots and robotic controller I/Os using native languages and Visual BASIC.NET. They will also use digital and analog Programmable Logic Controllers in conjunction with robot I/O to form complete workcells. Man Machine Interface (MMI) and Object Interface Terminal (OIT) will be used to integrate automation. This course includes an examination of Servo motors and feedback devices, End-Of-Arm tooling, and pneumatic systems using directional valves. *Prerequisites: ELT 221 and ELT 271.*

## **English (ENG)**

### **ENG 090 English Workshop**

4 Credits (4 Lecture 0 Lab 0 Shop)  
4.5 Hrs/Wk (4.5 Hrs. Lecture) \*15 wks  
English Workshop is designed to prepare students for the range of reading and reading most likely to be encountered in introductory college courses. It will expose students to the range of reading most likely to be encountered in the academic setting, and the skills most helpful in understanding and responding to texts. Students will develop critical reading skills and learn to apply their understanding of texts to student-led classroom discussion, oral presentations, and written responses. Students will receive instruction in planning, organizing, and basic academic composition. Emphasis is on the reading and writing process. Students are expected to use the library to do research and use either the MLA or APA citation style to document sources. This course is taught in a computer lab and requires regular use of the internet and computer applications. *See page 33 for placement & prerequisite chart.*

### **ENG 101 College Writing**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
College Writing is designed to expose students to the range of writing most likely to be encountered in the academic setting, and the skills most helpful in writing for all purposes. The course provides students with instruction and practice in writing clear arguments and expository prose. Emphasis is on the writing process, revising and editing. Students are expected to use the library to research a contemporary issue and use either the MLA or APA citation style to document sources. This course is taught in a computer lab and requires regular use of the internet and computer applications. *See page 33 for placement & prerequisite chart.*

### **ENG 105 College Writing Seminar**

4 Credits (4 Lecture 0 Lab 0 Shop)  
4.5 Hrs/Wk (4.5 Hrs. Lecture) \*15 wks  
College Writing Seminar is designed to expose students to the range of writing most likely to be encountered in the academic



# Course Descriptions

setting, and the skills most helpful in writing for all purposes. The course provides students with detailed, intensive instruction and practice in writing clear arguments and expository prose. Students will receive instruction in planning, organizing, and basic academic composition. Emphasis is on the writing process, revising and editing. Students are expected to use the library to research a contemporary issue and use either the MLA or APA citation style to document sources. This course is taught in a computer lab and requires regular use of the internet and computer applications. See page 33 for placement & prerequisite chart.

## **ENG 112 American Literature I**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a general introduction to American Literature from the early colonial period to Civil War Reconstruction. The course will provide a literary overview of Native American oral history, European explorers, Colonial, Puritan, Revolutionary, Civil War authors. Learners will explore themes reflected in the literature, examining which are particular to a place or time and which are woven through our nation's history. Through examining the process of early nation building reflected in its literature, learners will gain a greater understanding of how the American character was created, a better understanding of themselves and what it means to be an American. *Prerequisite:* SAT ERW Score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.

## **ENG 113 American Literature II**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a general introduction to American Literature from 1865 through the modern period into the present day, examining major authors from all regions. Learners will explore exclusively American themes reflected in literary works. Topics of examination may include the Emergence of Poetic Voices, the Development of the Narrative, Developments in Women's Writing,

Alienation and Literary Experimentation, the New Negro Renaissance, The Beat Movement, The Vietnam Conflict, and other literature to the present day. Through examining the growing identity of America and the individual voice reflected in its literature, learners will gain a greater understanding of how the American character continues to evolve, a better understanding of themselves and what it means to be an American. *Prerequisites:* SAT ERW Score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.

## **ENG 121 The Short Story**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces the students to the short story and examines universal themes through literature. The course content will focus on oral and written interpretations of short stories. The course will include the definition of literary terms, and will examine the evolution of the short story as a unique literary form. In addition to the works presented in class, the students will also be required to complete some outside reading of their own choice. They will be encouraged to select some authors from non-dominant cultures. *Prerequisite:* SAT ERW Score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.

## **ENG 123 Introduction to Mystery Literature**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces students to mystery literature, traces its origins as a genre, and explores the elements of fiction as they are applied to the genre. Students will read a variety of novels and short crime fiction, and analyze characters, means and motive based on the elements of the text and on period forensic techniques. Students will also compose a mystery incorporating concepts and materials from the course. Critical thinking, speaking, writing, observation, and critical reading skills will

be sharpened in this course. *Prerequisite:* Successful completion of ENG 101 or ENG 105 with a C or better.

## **ENG 125 Introduction to Literature**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Introduction to Literature introduces the student to a variety of ways to think and write about the three literary genres: short fiction, poetry and drama. Through close textual readings, class discussions, and writing assignments, students will learn to think critically and to write confidently about literary works, as well as to discuss such texts with an understanding of literary terms. This course is designed for transfer into a four year program. *Prerequisite:* Successful completion of ENG 101 or ENG 105 with a C or better.

## **ENG 131 Style and Syntax of American English**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course examines English grammar and usage, to assist students in understanding and producing correct and effective prose. Topics include parts of speech; common errors in sentence mechanics and spelling, punctuation and usage; and editing and proofreading techniques. The course is recommended for students whose jobs require them to produce accurate writing. Student work will be graded using tests and quizzes. *Prerequisite:* SAT ERW Score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.

## **ENG 150 Introduction to Journalism**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Conducting interviews, generating story ideas and examining the ethical dilemmas of reporting, students will write several news articles themselves as well as examine well-written articles published in newspapers, magazines and online. The focus will be on writing as a way to explore and explain the events, people and cultural artifacts that surround us in our daily lives. Guest speakers—editors

# Course Descriptions

and journalists—will connect the classroom with the newsroom. This course is taught in a computer lab and requires regular use of the internet and computer applications. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## ENG 201 Technical Writing

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Technical Writing familiarizes the student with common writing styles and formats used in business and industry. Students will practice organizing and presenting technical information for a variety of readers. Topics include style and readability of technical prose, organizing technical information, using graphics, writing effective letters and memos, writing reports, preparing employment correspondence, and presenting technical information orally. This course is taught in a computer lab and requires regular use of the internet and computer applications. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## ENG 211 Creative Writing

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course introduces students to the creative writing techniques, with an emphasis on creative non-fiction. Students are encouraged to sharpen their observation skills, use fresh and vivid details, and develop realistic characters to create short pieces of writing. Publishing opportunities will also be explored. Students will produce a portfolio of writing, developed through review and discussion of students' drafts, and revision. This course is taught in a computer lab and requires regular use of the internet and computer applications. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## ENG 215 Film as Literature

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course is designed to introduce students to the use of film as a narrative device. This course will follow a chronological plan from early filmmaking as documentary of everyday life or historic, news making events to film as a vehicle for

diverse, insightful and thought-provoking literature. Learners will enhance their analytical abilities by viewing various films and discussing specific topics, using the vocabulary of film, such as: the structure, cinematography, production design, performance style, editing, and sound design. Film viewing will take place in the classroom as well as independently. This course will provide opportunities to explore the modes of screen reality, Hollywood, and foreign films. Learners will be introduced to elementary Film Criticism and Interpretation. Last, learners will discuss models of film theory. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## ENG 220 Business Communication

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Business Communication focuses on developing formal business documents, correspondence, presentations, sales literature, personnel documents (resumes and cover letters, performance evaluations, reprimands, etc.). The course will concentrate on correct document formats, grammar and editing, business etiquette, effective communication techniques, and job-seeking skills. Each student will prepare a portfolio and two formal oral presentations. This course is taught in a computer lab and requires regular use of the internet and computer applications. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## ENG 221 Advanced Composition and Research

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course provides instruction in composing for specific academic purposes. Topics include critical analysis of literature and historical documents, position papers, annotated bibliography and argument. The emphasis is on conducting research, evaluating sources, integrating information and documenting sources using both MLA and APA styles. This course is taught in a computer lab and requires regular use of the internet and computer applications. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## ENG 230 Children's Literature

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
The study of children's literature as a legitimate literary form will allow learners to examine how it plays an intricate role in the belief systems we carry into adulthood. Learners will develop and deepen their appreciation of the literature through an extensive survey of multicultural and diverse books in children's literature. This course will include study of the various literary genres found in children's literature. *Prerequisite: Successful completion of ENG 101 or ENG 105.*

## ENG 294 Special Topics in Literature

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course will examine particular aspects of literature, depending on the semester. Examples might be - specific genres such as fantasy, graphic novels or poetry; literature of a particular place, time or related to social or political issues such as Russian literature Renaissance literature, literature of the Beat Generation, or protest lit; or feature the work of writers as individuals or as members of a particular literary movement such as Shakespeare, Chaucer, Jane Austen, native American writers. Because this is not a regular offering of the Humanities Department, students are encouraged to seek detailed information from the instructor or department chair, prior to registering. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## ENG 296 Portfolio Preparation Seminar

1 Credits (1 Lecture 0 Lab 0 Shop)  
1 Hr/Wk (1 Hr. Lecture) \*15 wks  
This course is designed to assist students who wish to prepare a portfolio to document past learning for the purpose of obtaining credit towards their degree. The course introduces the student to the purpose of an experiential portfolio, presents a format for presenting their experience and learning outcomes, and provides an opportunity for peer evaluation and critique. The course is graded on a pass/fail basis. *Prerequisite: ENG 201 or ENG 220.*

# Course Descriptions

## English as a Second Language (ESL)

Placement in ESL courses is based on the student's scores on Central Maine Community College's assessment test

### ESL 070 Study Skills for International Students

1 Credit (1 Lecture 0 Lab 0 Shop)  
1 Hr/Wk (1 Hr. Lecture) \*15 wks  
This course examines the cultural expectations of students in US higher education, as well as techniques to help students succeed in that environment. Topics include: the syllabus, organizing work, time management, preparing for exams and quizzes, academic honesty, individual vs. collective responsibilities, basic computer/word processing skills, academic vocabulary, using textbooks effectively, taking notes, and student support services. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 071 Writing and Grammar

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Focuses on developing intermediate academic English skills using standard American English. The priority is written work, though reading, speaking and listening are also expected. This course is taught in a computer lab and requires regular use of the internet and computer applications. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 072 Reading and Vocabulary

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Focuses on reading as a method to build a strong working English vocabulary as well as to understand the techniques used in American texts to organize information, convey meaning and to stimulate thought. Written and oral responses to reading are expected. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 073 Oral Language

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Focus on developing oral fluency in English at the high intermediate level: conversation, pronunciation, presentation skills, and listening comprehension. Some reading and writing also expected. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 074 English: Its Structure and History

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This is an introduction to the origins and history of English and the structure of English grammar. The course covers the nature of language. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 075 Building an Academic Vocabulary

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
An effective vocabulary is the key to success in work and in life. For many students learning English, a limited vocabulary is the biggest obstacle to their success. This course is designed to help students quickly learn new English words for use in academic courses. Priority will be given to the 3,000 most commonly used words in written and spoken English, words from the Academic Word List, common idiomatic expressions, terms used frequently on tests and quizzes and other assignments, and abbreviations and acronyms commonly found in American English. The goal is to increase students' working vocabulary (in correct forms and in various contexts) to enhance their success in college. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 101 Academic Writing and Grammar

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course covers narration, argument and research, with companion grammar and style components. Students will be expected to write according to the conventions of written American English. This course is taught in a computer lab and requires regular use of the internet and computer applications. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 102 Literature

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course introduces students to various genres of American literature, with a focus on exploring cultural mores and social interaction. Literature will be contemporary and historical, and will require some writing, speaking and listening comprehension. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 103 American Studies

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course helps students develop an understanding and appreciation of the current social and economic structure of the US, applying those constructs to literature, current events and personal exploration. The student will examine historical documents, literature, music, and art to establish a cultural context for understanding college texts. Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.

### ESL 105 English Second Language/Listening

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course focuses on aural comprehension of academic lectures taken from core courses typically recommended for first year students. The course rigorously prepares students to take notes on the salient lecture

# Course Descriptions

points. Students will be exposed to a variety of academic lectures to enhance their listening comprehension skills. *Prerequisite: Placement in ESL courses is open only to speakers of other languages and is based on students' score on Central Maine Community College's placement test.*

## Esports (EPS)

### ESP 100 Introduction to Esports Management

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces students to career opportunities, esports elements, and business concepts required to manage esports organizations and operations. The course will analyze the industry structure and challenges.

### ESP 150 World of Competitive Gaming

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course initiates students into the world of competitive gaming. Culture, climate, and team development will be explored from both a competitive gaming standpoint and an esports business perspective.

### ESP 225 Aspects of Game Design

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces various aspects of game design to students planning to work as part of management, production, and/or design teams. Various platforms, genres, objectives, rule dynamics, and quality will be explored. Emphasis will be placed on the elements of production including, conception, interface, storyboarding, character development, level of design, and soundtrack. *Prerequisites: ESP 100 & matriculated in the Esports program.*

### ESP 228 Esports Event Management

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course provides an overview of event management and the coordination of the technical aspects related to esports events. The responsibilities of an esports event manager often include the implementation of event plans and event oversight. Students

will gain an understanding of how to execute organizational tactics that will assist in meeting event concepts and customer expectations. *Prerequisites: ESP 100 & matriculated in the Esports program.*

### ESP 250 Esports Industry Trends

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course examines popular culture both inside and outside of the competitive gaming industry. Students will gain an understanding of how trends evolve and transform within the entertainment industry. Students will learn how to apply this knowledge in order to anticipate market changes and develop games for targeted audiences. A focus will be placed on discussing new and evolving technologies as well as current events in the entertainment industry.

*Prerequisites: ESP 100 & matriculated in the Esports program.*

### ESP 290 Esports Planning and Strategy

3 Credits (2 Lecture 1 Lab 0 Shop)  
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab)

This course prepares students to develop, market, and execute small and large scale esports events. Students will focus on the business aspect of esports while learning to develop teams and online communities. Students will be required to develop their own best strategy and plan for an esports event. The event will center around the use of the latest streaming technologies and competitive game play. *Prerequisites: ESP 100 and ESP 228.*

### GAM 156 Esports Game Technologies

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture)

This course is an introduction to the computer technologies utilized in esports. Student will examine and learn basic configurations of arena networking and streaming technologies.

## Ford ASSET (FOA)

(Automotive Student Service Educational Training)

### FOA 100 Dealer Practices

2 Credits (1 Lecture 0 Lab 1 Shop) 9 Hrs/Wk

(1 Hrs Lecture 2 Hrs. Shop) \*2 wks

This course consists of two major sections of instruction and lab experience. The first section introduces the student to the automotive industry, dealership operations, shop safety; Ford service publications, hand and power tool usage, and basic vehicle overview. The second section teaches basic electrical theory, use of electrical test equipment, circuit and component testing, and battery testing and service. In addition, fundamentals, servicing and testing of starting systems, charging systems, and ignition system will also be covered.

### FOA 130 Engine Repair/Climate Control

4 Credits (1 Lecture 0 Lab 3 Shop)  
10 Hrs/Wk (1 Hr. Lecture 9 Hrs. Shop)  
\*7 wks

This course consists of two major sections of instruction and lab experience. The first section teaches the principles of four-stroke engine operation, identification of engine systems and components, cylinder head and valve train diagnosis and service, engine noise diagnosis, and turbocharger/supercharger principles. In addition, disassembly and reassembly of complete gas engines, inspection, measurement and repair of all components; engine repair and overhaul procedures will also be covered. The second section teaches the operation of heating/air conditioning systems; principles of refrigeration; inspection, testing and servicing climate control system components; and automatic temperature control. *Prerequisites: FOA 191.*

### FOA 131 Field Experience

2 Credits (0 Lecture 0 Lab 2 Shop)  
4 Hrs/Wk (4 Hrs. Shop) \*5 wks

In FOA 131 the student works in the service department of a local Ford or Lincoln/Mercury dealership. This hands-on training under the direction and supervision of an experienced technician, reinforces the subjects learned in FOA 130. *Prerequisite: FOA 130.*



# Course Descriptions

## FOA 151 Field Experience

5 Credits (0 Lecture 0 Lab 5 Shop)  
15 Hrs/Wk (15 Hrs. Shop) \*8 wks  
The student works in the service department of a local Ford or Lincoln/Mercury dealership. This hands-on training, under the direction and supervision of an experienced technician, reinforces the subjects learned in FOA 100 and 152.  
*Prerequisite:* FOA 100 and 152.

## FOA 152 Auto Electrical Systems

3 Credits (2 Lecture 0 Lab 1 Shop) 9 Hrs/Wk  
(2 Hrs Lecture 3 Hrs Shop) \*6 wks  
This course teaches basic electrical theory, use of electrical test equipment, circuit and component testing, and battery testing and service. In addition, fundamentals, servicing and testing of starting systems, charging systems, and ignition system will also be covered as related to Ford vehicles.

## FOA 190 Brakes, Steering and Suspension, Manual Transmission and Driveline

5 Credits (3 Lecture 0 Lab 2 Shop)  
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) \*8 wks  
This course consists of three major sections of instruction and lab experience. The first section teaches basic hydraulic principles; operation of brake systems; master cylinder, drum brakes, disc brakes, power assist, parking brakes, and anti-lock brake systems. The second section teaches front and rear suspension systems; manual and power steering systems; wheel alignment; tire and wheel balance; tire wear; noise, vibration and harshness. In addition, electronically controlled vehicle riding height systems, variable shock dampening, and variable power steering assist will be covered. The third section teaches manual transmission operation and service; drivetrain basic principles; types of drivelines; differentials; clutches; U-joints; RWD, FWD, and 4-wheel drive. *Prerequisites:* FOA 151.

## FOA 191 Field Experience

5 Credits (0 Lecture 0 Lab 5 Shop)  
15 Hrs/Wk (15 Hrs. Shop) \*8 wks  
The student works in the service department of a local Ford or Lincoln/Mercury dealership. This hands-on training, under

the direction and supervision of an experienced technician, reinforces the subjects learned in FOA 190. *Prerequisite:* FOA 190.

## FOA 232 Field Experience

4 Credits (0 Lecture 0 Lab 4 Shop)  
12 Hrs/Wk (12 Hrs. Shop) \*8wks  
In FOA 232 the student works in the service department of a local Ford or Lincoln/Mercury dealership. This hands-on training, under the direction and supervision of an experienced technician, reinforces the subjects learned in FOA 270. *Prerequisite:* FOA 130.

## FOA 240 Automatic/Manual Transmission

5 Credits (3 Lecture 0 Lab 2 Shop)  
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) \*8 wks  
This course consists of one section of instruction and lab experience. This section teaches operating principles of Ford rear-wheel drive automatic transmission and front-wheel drive automatic trans axles; diagnosis; disassembly; repair and reassembly. *Prerequisite:* FOA 271.

## FOA 270 Computer Controlled Systems, Engine Performance

5 Credits (3 Lecture 0 Lab 2 Shop)  
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) \*8 wks  
This course covers the fundamentals of electronic control systems, electronic control system components, automotive micro-computer systems, and electronic engine control strategies. Also covered will be Ford's EEC V System and engine drivability diagnosis. *Prerequisite:* FOA 232.

## FOA 271 Field Experience

5 Credits (3 Lecture 0 Lab 2 Shop)  
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) \*8 wks  
In FOA 271, the student works in the service department of a local Ford or Lincoln/Mercury dealership. This hands-on training under the direction and supervision of an experienced technician reinforces the subjects learned in FOA 270. *Prerequisite:* FOA 270.

## French (FRE)

### FRE 101 Beginning French I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course offers an introduction to the French language and to the cultures of French-speaking areas of the world. The class will be communicative and interactive; the class will be conducted in French, and students will speak French in every session. This course is designed for students with no prior knowledge of French.

### FRE 102 Beginning French II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course offers continuing study of the French language and the cultures of French-speaking areas of the world. The class will be communicative and interactive; the class will be conducted in French and students will speak French in every session. This course is for students who have completed FRE 101 or two years of high school French. *Prerequisite:* FRE 101 or two years of high school French.

## Geology (GEO)

### GEO 101 Geology

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course will cover the fundamentals of geology. Topics covered will include rocks and minerals, the water cycle, glaciers, oceans, plate tectonics, volcanoes and earthquakes. Also covered will be tools and basic science concepts used to acquire information in each of these areas. There is no math prerequisite, however math concepts will be used in describing models, and students will be expected to solve problems using arithmetic and simple algebra concepts.

### GEO 102 Environmental Geology

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
Environment Geology involves the relationships of geology, humans and their environment. The course examines the ways in which geologic hazards (earthquakes, volcanoes, floods, landslides, tsunamis and



# Course Descriptions

others) affect people and the places and manners in which they live. Additionally, students will study the effects of people and the activities of our daily lives on the earth's surface: our use of soil to grow food, our habits-walking, driving and building on soils and bedrock, extraction of drinking water from the ground, use of petroleum and other mineral resources, and pollution of soil and water, as examples. There is no prerequisite for this course; however, high school earth science and/or Introductory Geology (GEO 101) would be helpful. Basic math concepts and functions will be incorporated into the course.

## Graphic Communications (GRC)

### GRC 102 Graphic Design I

*3 Credit (3 Lecture 0 Lab 0 Shop)  
3 Hr/Wk (3 Hr. Lecture) \*15 wks*

This introductory course will help students develop a foundation in graphic design. Through the creation of projects, students will learn to apply the basic principles and elements of graphic design. The skills acquired in this course will allow students to create effective pieces for their portfolios. Graphic Design I offers students a unique, project-based, creatively challenging course. Projects will familiarize students with the basic visual principles and design techniques needed when entering the work force. Additionally, students will gain experience assessing their work through collaborative critique sessions..

### GRC 103 Digital Page Layout I

*3 Credit (3 Lecture 0 Lab 0 Shop)  
3 Hr/Wk (3 Hr. Lecture) \*15 wks*

This course will introduce students to Adobe InDesign and typographic principles as they apply to digital page layout. Students will learn to design, layout, impose and print various documents, including business cards and a collaborative project such as the Maine Themed Game note pad. Students will learn about leading, kerning, tracking, typing on paths, in-line graphics, step-and-repeat and much more, while creating projects in a hands-on environment. Assignments will consist of a mix of in class activities and independent, outside of class, assignments and projects.

### GRC 106 Vector Illustration I

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will introduce students to Adobe Illustrator and the creation of vector graphics. While exploring Illustrator's tools, students will learn to work with spot colors to create multi-color vinyl decals. Other topics include creating and rendering 3D objects. Students will be expected to complete assignments in a hands-on, lab environment and in independent, outside of class, assignments.

### GRC 107 Digital Systems & Equipment I

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will introduce students to the Macintosh operating system and to the operation of peripheral equipment including flatbed scanners, laser printers, copiers, wide format printers and vinyl cutters. Students will learn proper file management techniques while learning to utilize the GRC server. Students will also learn safe work practices while working with the digital paper cutter and folding and padding equipment. Other topics include creating digital portfolios and interactive documents with Adobe Acrobat Pro.

### GRC 118 Introduction to Digital Photography

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This introductory level course will guide students in the operation of digital cameras. Students will learn to correct exposure within the camera, apply various camera modes to achieve desired results, and to save digital images for printing and web. Other topics will include setting up a photo-shoot and color correcting photos. Students must have access to a digital camera that allows editing of the settings to the camera's Aperture, Shutter Speed, ISO, Exposure Value, and Manual mode, and takes and saves photos in RAW format.

### GRC 119 Web Media I

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course introduces the student to the process of planning, defining and developing an interactive Web site.

Adobe Dreamweaver, a program for Web application and development, will be the primary software used to create the Web sites. Adobe InDesign, Photoshop and Illustrator will also be used to create web site elements.

### GRC 152 Portfolio Design & Development

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will take students through the process of designing and building both traditional and digital portfolios. Each student will create a resume, which will contain links to their portfolios. Students will learn how to post their portfolios on YouTube and other social media sites such as Facebook and LinkedIn. Digital portfolios will be formatted for smart devices, email, and traditional computers. Students will practice interview skills while presenting their portfolios in class.

### GRC 153 Introduction to Screen Printing

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

In this hands-on, fast paced environment, students will learn to screen print single and multi-color designs. Students will use their own designs in the production of T-shirts, while learning to output positives, prep, coat and image screens, and print garments utilizing state of the art screen printing equipment.

### GRC 176 Photoshop I

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

An introduction to Adobe Photoshop Creative Cloud, presented in a project based format. Students will utilize selection tools, layers, retouching tools, colorization techniques, content aware and actions in the correction and manipulation of photographs. Students are expected to complete assignments in a hands-on, lab environment and in independent, outside of class, assignments.

### GRC 204 Vector Illustration II

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

In this advanced course, students will enhance their skills using Adobe Illustrator

# Course Descriptions

to create vector graphics. Students will apply the principles of typography, color theory and digital illustration to the solution of advanced design problems, including identity design. In class critiques, discussion and analysis of work submitted will lead to sound design practices. Students will be expected to complete assignments in a hands-on, lab environment and in independent, outside of class, assignments, projects and portfolios. *Prerequisite:* GRC 106.

## **GRC 210 Digital Page Layout II**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
In this course, students study the technical and creative potential of Adobe InDesign, an industry standard page layout program. After reviewing the fundamentals, students study multiple page setup, master pages, style sheets, text editing, and preflighting. Students will be expected to complete lab assignments in a hands-on lab environment and in independent, outside of class, assignments. *Prerequisite:* GRC 103.

## **GRC 220 Web Media II**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
Students will enhance their web design skills by creating a web site with various web development applications. Students will be introduced to animation including creating, editing and importing characters from other design platforms. Students will be exposed to advertising, branding and will publish a portfolio web page on the Adobe Spark web server. *Prerequisite:* GRC 119.

## **GRC 249 Digital Photo Editing**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
Students will explore industry standard software such as Lightroom and Photoshop for digital photo editing. Photo manipulation techniques will include: correcting for color casts, adjusting tonal values and contrast and improving out of focus shots. Calibrating displays and output devices are topics that will be introduced in addition to preparing photographs for web and print output. Students will learn how to adjust and edit photos in RAW format.

Students will also learn to import, organize, and output their images. Students must have access to a digital SLR camera that allows use in manual mode and takes and saves photos in RAW format. *Prerequisite:* GRC 118.

## **GRC 250 Graphic Design II**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
In this second level course, students will enhance their design skills while tackling various design challenges. In this project-based course, students will manage type and images to create meaningful messages aimed at their target audience. Students will utilize their creativity and problem solving skills to develop effective designs. Designing pieces for a variety of production methods will be covered in this course. *Prerequisite:* GRC 102.

## **GRC 252 Advanced Screen Printing**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
In this advanced course, students will learn to print full color photographs using traditional CMYK methods, simulated process and digital imaging techniques. Students will retension Newman Roller frames, create and print underbases and experience specialty inks such as discharge ink. Students will gain extensive experience in creating and printing halftone images in this course. *Prerequisite:* GRC 153

## **GRC 254 Digital Imaging and Wrap Installations**

*3 Credits (1 Lecture 2 Lab 0 Shop)*  
*5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Lab) \*15 wks*  
In this hands-on course students will learn to create and prepare files for a variety of digital output devices. Students will design files to print directly onto irregular shaped items, using a flatbed UV printer. The laser engraver will be used to teach how to etch and cut on varied media. The wide format vinyl printer/cutter will be used to teach t-shirt transfer, vinyl graphics, and vehicle wrap techniques. Wall graphics and their installation will also be covered. *Prerequisites:* GRC 102, 103, 106, 107, 119, 176.

## **GRC 276 Photoshop II**

*3 Credits (3 Lecture 0 Lab 0 Shop)*  
*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
In this advanced course, students will learn to improve low quality images, manipulate photographs and create original artwork while learning to use Photoshop in conjunction with the rest of the Creative Suite. In-depth work with layer masks, actions, paths and blending modes are just a few of topics covered in this course. *Prerequisite:* GRC 176.

## **GRC 297 Internship Experience**

*Variable credit \* 160 hrs for 3 credits*  
This course provides further skill development and refinement through work experience in the graphic arts industry. The student must complete a 15-week block of successful employment at an approved work site within the industry. Students are required to submit weekly work reports and two evaluations from their supervisor.

## **GRC 298 Production Experience**

*3 Credits (1 Lecture 2 Lab)*  
*5 Hrs/Wk (1 Hr. Lecture/4 Hrs. Lab)*  
In this hands-on course, students will polish their existing skills while producing documents and products for non-profit organizations. Students will utilize the Adobe Creative Suite and equipment throughout the GRC lab, while producing professional quality products. *Prerequisites:* 27 GRC credits and matriculated in the GRC. am.

## **Heating Ventilation, Air Conditioning and Refrigeration Technology (HVT)**

### **HVT 105 Basic Refrigeration Principles**

*3 credits (1 Lecture 0 Lab 2 Shop)*  
*7 Hrs/Wk (1 Lecture 6 Shop) \*15 wks*  
This course provides an introduction to the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, and refrigeration components.

### **HVT 111 Electricity for HVAC/R**

*3 credits (1 Lecture 0 Lab 2 Shop)*  
*7 Hrs/Wk (1 Lecture 6 Shop) \*15 wks*  
This course introduces principles of

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electricity as required by HVAC/R technicians including proper use of test equipment, A/C and D/C circuits, and component theory and operation.

**HVT 120 Residential Load Calculations**  
2 credits (.5 Lecture 0 Lab 1.5 Shop)

10 Hrs/Wk (1 Lecture 9 Shop) \*8 wks  
This course introduces students to psychrometrics, heating and cooling load calculations, and refrigeration load calculations.

## HVT 152 Heat Pumps

3 credits (1 Lecture 0 Lab 2 Shop)  
7 Hrs/Wk (1 Lecture 6 Shop) \*15 wks  
This course provides knowledge necessary to install, service, troubleshoot, and repair heat pumps. Emphasis will be placed on air-to-air systems; ground source systems will be introduced and briefly examined. Topics will include a review of the refrigeration cycle, reversing valves, the defrost cycle, defrost timers including electromechanical as well as solid state devices, balance point, and backup heat systems. Prerequisite: HVT 105, HVT 111.

## HVT 180 HVAC/R Diagnostics and Servicing

4 credits (1 Lecture 0 Lab 3 Shop)  
10 Hrs/Wk (1 Lecture 9 Shop) \*15 wks  
This course covers the essential knowledge and skills necessary to properly service common residential HVAC/R equipment. Emphasis will be placed on confirming proper operation for safety, efficiency, and reliability of oil and gas fired equipment. Prerequisites: HVT 105, HVT 111.

## HVT 252 HVAC/R System Design

3 credits (1 Lecture 0 Lab 2 Shop)  
7 Hrs/Wk (1 Lecture 6 Shop) \*15 wks  
This course provides a study of the properties of air and results of cooling, heating, humidifying or dehumidifying in residential systems. Emphasis is placed on heat gain and heat loss calculations including equipment selection and balancing an air system. Prerequisite: HVT 180.

## HVT 255 Commercial Refrigeration

2 credits (.5 Lecture 0 Lab 1.5 Shop)  
10 Hrs/Wk (1 Lecture 9 Shop) \*8 wks

Theory of and practical application in the maintenance of commercial refrigeration; high, medium, and low temperature applications. The student will be introduced to various controls and components used in these applications. This course covers piping procedures, wiring, operation, and troubleshooting. The student will be introduced to air cooled, water cooled, and evaporative cooled condensers and their applications. Prerequisite: HVT 180.

## HVT 297 Externship

3 credits (.5 Lecture 0 Lab 2.5 Shop)  
15 Hrs/Wk (1 Lecture 14 Shop) \*8 wks  
The externship experience provides the student with an opportunity to explore career interests in HVAC/R while applying knowledge and skills learned in the classroom to a work setting. Prerequisites: HVT 180, OSHA 30-hour card, department chair approval.

## History (HIS)

### HIS 131 US History to 1877

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
The political, economic, social and historical trends of the United States will be discussed. The time period beginning with the colonial period to 1877 will be covered with particular focus on critical analysis of historical events in this time frame. Such events can include: Native American culture, the European discovery of the new World, the social, political and military aspects of the American Revolution, the Louisiana Purchase, the "Trail of Tears," the New Democracy of Andrew Jackson, slavery and the Civil War.

### HIS 132 US History Since 1877

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
The political, economic, social and historical trends of the United States will be discussed. The time period beginning with 1877 to the present will be covered with particular focus on critical analysis of historical events in this time frame. Such events can include: The Gilded Age, Westward Expansion, Anger and Reform: Populism and Progressivism, World War I, the "Roaring Twenties," the Great Depression

and the New Deal, World War II, the Cold War, the Civil Rights Movement, the Social and Political Activism of the Sixties and the resurgence of conservatism.

### HIS 151 Western Civilization I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course introduces the student to the heritage of Western society from ancient to early-modern times. Particular attention is given to the ancient civilizations of Egypt, Greece and Rome. Medieval civilization is explored with a focus on the institutions it bequeathed to the modern world. The Renaissance and Reformation and the rise of the great nation-states are studied. Throughout the course important individuals are considered such as Alexander the Great, Caesar, Charlemagne, Michelangelo, and Elizabeth I.

### HIS 152 Western Civilization II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course introduces the student to the heritage of Western society from early modern times to the atomic age. Particular attention is given to the Enlightenment, the French Revolution, the rise of the industrial era, the growth of nationalism, and the World Wars. Personalities such as those of Napoleon, Marx, and Hitler are studied.

### HIS 201 Maine History

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course will explore the social, political, and economic development of Maine from the time of settlement to the present. Discussion of early European and Native American influences on the political, social, and economic activities will provide a framework for discussion of contemporary fishing, hunting, lumbering, and tourist industries.

### HIS 210 The Washburns of Livermore, ME

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks  
This course will use traditional historical research and several field trips to learn about one of the most outstanding political dynasties in American history. Israel and Martha Washburn had a large family

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during the hard years of the early 19th century. Raised with "the iron hand of poverty always on their shoulders" the seven sons of Israel and "Patty" wrote their names large across the middle of 19th century political life. Out of the seven boys came two governors of different states, for US Representatives, one Union Army major general, a commander in the US Navy, one senator, one minister to France, one minister to Paraguay, one Secretary of State, three authors, the founders of Gold Medal Flour and the Pillsbury Corporation, one millionaire banker philanthropist, the founders of a Wisconsin Railway still in operation, "The Mighty Soo," and three founders of the Republican Party.

## **HIS 220 America and the Cold War**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course will introduce the political, military, economic and social stresses of the Cold War era from the end of World War II until 1989. Emphasis will be placed on the Cold War psyche, political discourse in the U.S., the arms race, the civil rights movement, the United Nations, international conflicts such as Korea and Vietnam, military spending, human rights and the Reagan and Gorbachev era.

## **HIS 296 Special Topics in History**

*3 credits (3 Lecture 0 Lab 0 Shop)  
3 Hr/Wk (3 Hr. Lecture) \*15 weeks*  
The students in this course will analyze selected topics in history. These topics will analyze various periods and themes in history. The special topic analyzed is not a regular course offering of the social sciences department. Since the topic covered in this class differs from year to year, students should seek further information before registering regarding the particular topic that will be analyzed. Possible topics to be analyzed include: Modern African-American History, the Vietnam War, Native American History, Women in American History and The History of Lewiston-Auburn. Co- or prerequisite: One history course.

## **Human Geography (GEY)**

### **GEY 101 Human Geography**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
Human Geography constitutes an introductory course designed to furnish the student with a general understanding of the spatial dimensions of human culture. The course provides an overview of the global distribution of such elements of culture as population, languages, religions, economic activities, urban systems, and political organization. The spatial perspective will furnish a greater understanding of the cultural world around us, and patterns of human activity which exist in dynamic interaction with the physical environment.

## **Humanities (HUM)**

### **HUM 294 Special Topics in Humanities**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course will examine particular aspects of the humanities, depending on the semester. Examples might be-music, literature and art of a specific time period; the history of language as it related to modern modes of communication; the work of artists, writers and thinkers of a particular period or movement. Topics can cover a range of disciplines classified under the category "humanities" - art, music, language, cinema, philosophy, gender studies, and so on. Because this is not a regular offering of the Humanities Department, students are encouraged to seek detailed information from the instructor or department chair, prior to registering. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

### **HUM 296 Independent Study in Humanities**

*3 Credits \*15 wks Number of hours per week to be determined by Advisor*  
This course is designed to allow students to work on a semester long project in the humanities. The project will be developed by the student in conjunction with the instructor of the course. The student will meet with the instructor periodically through the semester to ensure the project objectives

are being met. *Prerequisites: The student must have completed (12) credit hours in a catalog program, be in good academic standing, be recommended by his or her advisor, and meet with the course instructor.*

## **Human Services (HUS)**

### **HUS 101 Critical Thinking and the Addictions Professional**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
The purpose of this course is to provide knowledge, skills and attitude learning opportunities that will prepare students to enter the addictions profession at entry levels and for those pursuing certification in addictions. The course will introduce students to the principles of critical thinking and will provide practice in applying these principles in everyday decision making within the addictions field. *Prerequisites: SAT ERW Score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.*

### **HUS 112 Introduction to Community Mental Health**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course provides a historical framework for understanding the current role of human services in meeting a variety of human needs in society. An emphasis is placed on the work of social service agencies and the roles of human services workers. The nature of helping relationships including attitudes, skills and knowledge required, value conflicts and dilemmas in the field will be explored. The organization and delivery of services offered to individuals, families and the community will be discussed. Care of specific populations such as children, the aging, and those with substance abuse, mental illness, and developmental disabilities in a multicultural society will be highlighted. This course will also explore the different methods, careers, and job opportunities in the various helping professions, and the goals of the human service program in particular.



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## HUS 153 Substance Abuse

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course investigates drug use, abuse, and addiction. Psychological, social, legal, spiritual, and philosophical sources of drug use and abuse are explored. Five areas of emphasis will be examined including the societal forces that influence the phenomenon; the drugs themselves, so-called licit and illicit drugs or "street drugs" and medications and their use and effects on mind, body, and emotions, i.e., the pharmacology of drug use; the drug users themselves, and why they use drugs; the theories of addiction; rehabilitation and relapse prevention which will address what works and what does not; and prevention including the drug wars, education as prevention, and the failure of drug education.

## HUS 155 Case Management

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course explores the theory, principles, and methods of casework in various social agency settings with attention focused on identifying and assessing situational problems using social and social psychological variables. Skill development will emphasize basic methods of case load management, coordinating various components to community social services, and insuring continuity of services to clients. Topics covered include: information gathering, record-keeping, monitoring treatment plan implementation, referral to other service providers, and the appropriate utilization of a caseworker's time. The case management policies of various community agencies will be examined. *Prerequisite: Successful completion of HUS 112.*

## HUS 158 Behavioral Health Professional Certification

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The purpose of this course is to prepare students for working with youth and their families in home and community settings. Students will gain an understanding of: typical child and family development, the impact of trauma, development of the ITP, communication skills, principles of behavior, principles of instruction and the

use of community resources. This course requires that students successfully complete CPR/First Aid and Blood Borne Pathogens Certification.

## HUS 160 Addiction and the Family

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The purpose of this course is to explore the numerous substance abuse related issues that may impact the family system. Topics of exploration include possible causes of substance abuse and addiction within the family, the wide-ranging impact upon family members and dynamics, intervention and treatment, as well as long-term recovery issues.

## HUS 161 Addiction Over the Lifespan

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to introduce students to the fundamental concepts of chemical dependency across the lifespan. Topics of study include common substances of abuse, neurochemical/ physiology of addiction, various developmental models and addiction, as well as treatment and prevention.

## HUS 241 Human Services Practicum I

4 Credits (1 Lecture 0 Lab 3 Clinical)

10 Hrs/Wk (1 Hr. Lecture 9 Hrs. Clinical) \*15 wks

The goal of the course is to integrate course theory learned throughout the curriculum with practical, beginning clinical work and community service networking, by providing prospective human services workers with an opportunity to learn experientially at a human services agency in the community. The focus is for the student to learn how an agency functions and experience being a part of that agency. A weekly one hour seminar will assist the student to process and integrate knowledge gained in the foundation courses with the experiential learning gained at the field site. It will serve as a forum for sharing field experiences and provides students with a peer support group. The focus will be on developing the skills necessary for human services practice, i.e., observation, human

relations, interviewing, self-awareness, and leadership. *Prerequisites: Students should have successfully completed 30 credits of the HUS degree requirements and permission from Department Chair.*

## HUS 242 Addiction Specialization Practicum I

4 Credits (1 Lecture 0 Lab 3 Clinical)

10 Hrs/Wk (1 Hr. Lec. 9 Hrs. Clinical) \*15 wks

The goal of the course is to integrate course theory learned throughout the curriculum with practical, beginning substance abuse clinical work and community addictions treatment services, by providing perspective addictions workers with an opportunity to learn experientially at a substance abuse treatment agency. The focus is for the student to learn how a substance abuse treatment agency functions and experience being a part of that agency. A weekly one-hour seminar will assist the student to process and integrate knowledge gained in the foundation courses with the experiential learning gained at the field-site. It will serve as a forum for sharing field experiences and provides students with a peer support group. The focus will be on developing the skills necessary for addictions treatment, i.e., completing assessments, interviewing skills, clinical observation, self-awareness and leadership. *Prerequisites: Students should have successfully completed 30 credits of the HUS degree requirements and permission from Department Chair.*

## HUS 251 Human Services Practicum II

4 Credits (1 Lecture 0 Lab 3 Clinical)

10 Hrs/Wk (1 Hr. Lec. 9 Hrs. Clinical) \*15 wks

A continuation of the practicum and seminar experience which will provide opportunities for students to advance their learning and practice skills, and to learn more about themselves, client populations with whom they work and the network of human services. *Prerequisite: HUS 241*



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## HUS 252 Addiction Specialization Practicum II

4 Credits (1 Lecture 0 Lab 3 Clinical)  
10 Hrs/Wk (1 Hr. Lec. 9 Hrs. Clinical) \*15 wks

A continuation of the addictions practicum and seminar experience which will provide opportunities for students to advance their learning and addictions counseling practice skills and to learn more about themselves, the addictions population with whom they work and the network of other addictions agencies. *Prerequisite: HUS 242*

## Interdisciplinary Studies (INS)

### INS 101 Technology and Society

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Technology and Society examines the issue of technology from a variety of perspectives. Students will explore how technological innovation has been treated by society, through various media and the arts, and how thinkers have examined the implications of living in a technological society. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

### INS 211 The Asian Tradition

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The Asian Tradition will provide students with an overview of the largest continent starting with the religion, history, and literature of Ancient India and the Chinese Dynasties, and continue through medieval Asia with the emergence of Japan and Southeast Asia. Because of Asia's vast size, the development of the various cultures was distinct. Unique art, literature, and religious traditions emerged, but the extraordinary diversity was often accompanied with mistrust and conflict. The course ends with an examination of modern Asia and an investigation of how the volatile current events (India/Pakistan, North/South Korea, China/Tibet, China/Taiwan,) are the product of ages-old cultural traditions. *Prerequisite: SAT ERW Score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.*

## INS 250 Western Thought and Culture I

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course provides students with a cultural context for appreciating Western Civilization and understanding the present. Students study the cultures of ancient Egypt, the Golden Age of Greece, Imperial Rome, the Dark Ages, the Byzantine Empire and the Middle Ages. Students consider each culture in terms of the dominant characteristics of its origins, world view, political thought, religion, ethics, art, architecture, literature, music, philosophy, science, mathematics, and medicine, as the case may be, as well as its leading figures. (Not all aspects apply to all cultures.) The objective is not to present a comprehensive survey of all subjects but rather a composite picture of the essential typical characteristics, figures, and symbols of the age that students can carry with them into life and use as a basis for understanding in other courses. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## INS 251 Western Thought and Culture II

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This survey course introduces the student to the major ideas and artistic achievements in the western tradition from the Renaissance to today. The course will focus on the evolution of thinking in each period, including the Renaissance, the Baroque, the Enlightenment, the Modern, and the Postmodern. In each period, the role and nature of the arts, including painting, sculpture, architecture, literature, and music will be examined. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## INS 296 Interdisciplinary Seminar

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This interdisciplinary seminar, which focuses on a different topic every year, is offered by the Humanities, Social Science and/or Mathematics and Science faculty. Students will examine the topic from different viewpoints to gain a more broad-based understanding of the subject. This seminar

requires students to read a variety of material to prepare for class discussions and participate actively in class. *Prerequisite: Successful completion of ENG 101 or ENG 105 with a C or better.*

## Justice Studies (JUS)

### JUS 247 Research Methods for Justice Studies

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces methods for research design and data collection in justice studies. Methods used to conduct research will be examined, including defining research problems, ethics in research, selecting and measuring variables, and writing a research design and paper. *Prerequisite: ENG 101 or 105.*

### JUS 205 - Crisis Intervention for Justice Studies

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will introduce the student to crisis theory, concepts, intervention and strategies for justice-related occupations. Special emphasis is given to contemporary research in suicidology, disaster psychology, and crisis management for public schools. Topics of discussion include emergency situations such as natural disasters, terrorism, school violence, abuse, and crisis interventions with diverse populations.

### JUS 252 Offender Rehabilitation

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course examines programs and practices designed to rehabilitate offenders. Rehabilitation will be considered across a variety of areas contributing to offender recidivism. Evidenced-based methods of rehabilitation explored will include interventions for people who have drug addictions, mental illness, and those who perpetrate property offenses, sexual crimes, and domestic violence. This course will also consider offender rehabilitation with men and women of different ages and ethnic/cultural background and relevant professional ethics issues.

# Course Descriptions

## Learning Resources (LER)

### LER 100 First-Year Seminar

1 Credit (1 Lecture 0 Lab 0 Shop)

1 Hr/Wk (1 Hr. Lecture) \*15 wks

This course provides an introduction for students transitioning to Central Maine Community College. It is designed to provide students with an opportunity to acquire the skills to succeed in college, career and life. Through classroom exercises and guest lecturers, on topics such as time management, academic goal development, career development, financial literacy and critical thinking, students develop strategies for success. This course is required of all General Studies Associate of Arts students and open to all others.

## Mathematics (MAT)

### MAT 030 Basic Mathematics

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This preparatory course provides a review of the arithmetic processes including addition, subtraction, multiplication and division of whole numbers, fractions, decimals, percents, and measurement. Includes an introduction to algebraic concepts. Students are expected to gain mastery in each of these areas and demonstrate their competency on appropriate tests. See page 33 for placement & prerequisite chart.

### MAT 050 Algebra I

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course covers an introduction to algebraic operations including problem solving with simple equations, graphing, systems of equations, exponents, and polynomials. Students are expected to gain mastery in each of these areas and demonstrate their competency on appropriate tests. See page 33 for placement & prerequisite chart.

### MAT 080 Pre Statistics

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is a pathway course to introductory statistics that focuses on descriptive statistics. No previous experience in

the understanding or use of statistics is assumed. Performing operations and evaluating expressions will be reviewed. Topics of study include types of sampling, observational studies and experiments, display of data, measures of center and spread, probability, scatterplots, and linear modeling. This course only serves as a prerequisite for MAT 135 Statistics. MAT 100 Intermediate Algebra (a prerequisite for higher level math courses including MAT 135) is recommended for those who plan to transfer into business, advanced health, science, technology, engineering, and math programs. See page 33 for placement & prerequisite chart.

### MAT 100 Intermediate Algebra

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course covers the fundamentals of algebra including the real number system, solving equations and formulas, graphing equations, systems of linear equations, factoring and fractional expressions, quadratic equations, exponents and radicals. See page 33 for placement & prerequisite chart.

### MAT 101 Business Mathematics

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is designed to develop the computational and vocabulary skills necessary for: retailing, marketing, accounting, finance and business management. Topics studied include: interest, banking, depreciation systems, payroll, statistics and graphics. It includes expanded application of algebraic principles through the study of quadratics and linear equations to business problems including standard of deviation and coefficient of variation to quality control problems. See page 33 for placement & prerequisite chart.

### MAT 102 Numbers and Logic

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course explores: (1) various number systems - conversions between them and the arithmetic used in them; (2) description of sets and operations involving sets; (3) logic statements, symbols, decision tables and applications; (4) mathematical systems - clock arithmetic, modular systems and

applications and finite systems; (5) ways of counting, sequences, combinations and permutations; (6) finite and conditional probability; (7) proportion and variation. See page 33 for placement & prerequisite chart.

### MAT 104 Technical Mathematics

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course reviews basic operations with real numbers including fractions, decimals, and percentages. Topics include U.S. and International units of measurement, techniques for solving linear equations, use of formulas, proportions and variation, geometry of common geometric shapes, and right triangle trigonometry. See page 33 for placement & prerequisite chart.

### MAT 105 Geometry and Trigonometry

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will begin with a review of the techniques for solving linear equations in one and two unknowns, formulas, quadratic equations, and proportions. The course will cover the U.S. and International units of measurement, geometry of some common geometric shapes and the Pythagorean Theorem. Also included will be right triangle trigonometry, trigonometry of any angle and vector addition. See page 33 for placement & prerequisite chart.

### MAT 122 College Algebra

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will begin with a review of basic algebraic operations including solving equations and formulas. Functions and the graphing of functions are included. Trigonometry is limited to the basic trigonometric functions, the Pythagorean Theorem, and the solutions to right triangle problems. The course will include solving systems of linear equations, factoring and rational expressions, solving rational equations, and solving of quadratic equations. Exponents and radicals, as well as exponential and logarithmic functions will be covered. See page 33 for placement & prerequisite chart.

### MAT 125 Finite Mathematics

# Course Descriptions

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will cover several topics related to problem solving in the areas of business, finance, sociology, economics, and other areas in which mathematical methods are used. Specific topics include linear functions, systems of equations, matrix algebra, linear programming, and the fundamentals of probability and statistics. No previous experience in finite mathematics is necessary; however, a solid foundation in algebra is essential. See page 33 for placement & prerequisite chart.

## **MAT 132 Pre-Calculus**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will begin with a review of the trigonometric functions and solving problems involving right triangles. The course will include the geometry of common geometric figures (including perimeter, area, and volume), trigonometric functions of any angle, vectors, and graphing of trigonometric functions. Complex numbers, additional topics in trigonometry, plane analytic geometry and a review of functions will complete the course. See page 33 for placement & prerequisite chart.

## **MAT 135 Statistics**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This is an introductory course in statistics. No previous experience in the understanding or use of statistics is assumed. Topics of study include: descriptive statistics, probability and probability distributions, sample sizes and hypothesis testing, dependent and independent samples, correlation and regression and analysis of variation. Other topics such as statistical process control may be included as time permits. Some computer literacy is assumed. See page 33 for placement & prerequisite chart.

## **MAT 283 Calculus I**

*4 Credits (4 Lecture 0 Lab 0 Shop)  
4 Hrs/Wk (4 Hrs. Lecture) \*15 wks*

This is the first course in a typical three-semester sequence covering the basic calculus of real variables. Calculus I introduces the concept of limits and applies that concept to the definitions of derivative

and integral of a function. Derivatives and their applications are covered as well as integrals and their applications. The course will also include the differentiation and integration of transcendental functions. See page 33 for placement & prerequisite chart.

## **MAT 284 Calculus II**

*4 Credits (4 Lecture 0 Lab 0 Shop)  
4 Hrs/Wk (4 Hrs. Lecture) \*15 wks*

This is the second course in a typical three-semester sequence covering the basic calculus of real variables. Calculus II topics include inverse trigonometric functions, hyperbolic functions, methods of integration, improper integration, indeterminate forms, parametric equations, polar coordinates and infinite series.

See page 33 for placement & prerequisite chart.

## **Medical Assistant (MEA)**

### **MEA 165 Medical Ethics and Law**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will provide students with an overview of laws, ethics, liabilities, and their relationships as they relate to the Medical Assisting profession. Covered topics will include ethical and legal responsibilities, licensure requirements, physician and patient rights, negligence, medical records confidentiality, and revocation of licensure.

### **MEA 205 Medical Office Administration & Electronic Records**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will focus on the administrative procedures of a medical office. Competencies include: performing clerical functions; performing bookkeeping procedures; preparing special accounting entries; processing insurance claims; communicating with patients, verbally and written; understanding legal concepts; explaining general office policies; performing various operational functions; and maintaining a level of professionalism. Prerequisites: MET 111 and BCA 120.

### **MEA 210 Insurance Coding/Claims Processing**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will focus on the insurance and claims processing duties of the medical office professional. The student will gain an understanding of the health care industry; medical coding; insurance claims procedures; and several major health insurance programs. The course will explore the legal aspects of insurance billing, ICD-9-CM coding, HCPCS coding, various medical claims forms, Electronic Data Interchange (EDI), Managed Care, Blue Cross/Blue Shield, Medicare, Medicaid, and Workers' Compensation. A billing simulation will be completed as a final evaluation. Prerequisite: MET 111.

### **MEA 221 Medical Clinical Procedures I (Lab)**

*2 Credits (0 Lecture 2 Lab 0 Shop)  
4 Hrs/Wk (4 Hrs. Lab) \*15 wks*

These labs will follow the lecture as much as possible and include the practice to perform procedures and skills efficiently in the medical assisting setting. Corequisite MEA 222. Prerequisite: BIO 101/102 and BIO 105 or BIO 115/116 and BIO 117/118.

### **MEA 222 Medical Clinical Procedures I (Lecture)**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course begins as an introductory course and continues into preparing the student for Medical Assisting with some basic skills. The student will receive an introductory look at the profession to include managing the clinical environment, learning communication and patient teaching skills, and taking health history and vital signs. Students will continue by learning infection control, safety, sterilization, instrument preparation, the process of a general patient exam, minor office surgery, emergencies, first aid, CPR, diet, nutrition, pharmacology, phlebotomy and the administration of medications. Corequisite MEA 221. Prerequisite: BIO 101/102 and BIO 105 or BIO 115/116 and BIO 117/118.



# Course Descriptions

## MEA 230 Advanced Medical Clinical Procedures II (Lecture)

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will continue presenting clinical skills needed for the medical assistant in a medical setting. During this course the student will learn basic laboratory testing procedures. A basic treatment of microbiology, urology, and diagnostic imaging will be presented. The student will also be introduced to the different specialties of a medical practice: Gynecology, Obstetrics, Pediatrics, Neurology, Psychiatry, Orthopedics, Rehabilitation, Cardiology, Pulmonology, Gastroenterology, Dermatology, Ophthalmology, Otolaryngology, Endocrinology, Oncology, Immunology and Allergy. *Prerequisite:* Grade of C or higher in MEA 221 and 222; *Corequisite* MEA 231.

## MEA 231 Advanced Medical Clinical Procedures II (Lab)

2 Credits (0 Lecture 2 Lab 0 Clinical)

4 Hrs/Wk (2 Hrs. Lab) \*15 wks

The labs will follow the lecture as much as possible and include the practice to perform procedures and skills efficiently in the medical assisting setting. *Corequisite* MEA 230.

## MEA 240 Essentials of Pharmacology for Medical Assistants

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will cover basic pharmacological concepts. Major drug categories will be covered as they relate to the different body systems. The general principles of drug action, absorption, metabolism and excretion, as well as methods of administration, will be presented. The course covers a review of mathematical skills required to calculate drug dosages.

## MEA 266 Medical Assistant Externship

6 Credits (0 Lecture 0 Lab 6 Clinical)

*Prerequisite:* Successful completion of MEA 222 and MEA 221. *Corequisite:* the prescribed fourth semester courses, a GPA of 2.0 and a C or better in medical

assisting, biology, and business and computer applications courses. Following coordinator's approval, the student will spend two days a week for 15 weeks during a semester in local physicians' offices or hospitals observing and participating in basic procedures used in the operation of the clinical, laboratory, and secretarial areas.

## Medical Coding and Electronic Health Records (MCO)

### MCO 110 Introduction to Health Information Technology (HIT 1)

3 Credits (3 Lecture, 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

An introduction to the Life Sciences and Allied Health profession of Health Information Technology and Healthcare Delivery Systems. This course is an overview of HIT key topics including computer systems and health records systems, privacy and security, healthcare data sets, research and regulatory, and compliance issues.

### MCO 113 Health Information Technology - Hospital (HIT) II

2 Credits (2 Lecture, 0 Lab 0 Shop)

2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

Building upon the framework of MCO 110, this course will address health statistics, research, quality management, health services organization and delivery as well as health information technology and systems. *Prerequisite:* MCO 110.

### MCO 115 Health Information Technology - Physician (HIT) III

2 Credits (2 Lecture, 0 Lab 0 Shop)

2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

This course will provide an overview of the complex financial systems within today's healthcare environment and provide an understanding of the basics of health insurance and public funding programs, managed care contracting, and how services are paid. This course will provide students with a basic understanding of healthcare reimbursement methodologies. *Prerequisites:* MCO 110 and 113.

## MCO 116 Healthcare Statistics

2 Credits (2 Lecture 0 Lab 0 Shop)

2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

This course introduces students to the gathering, compiling and computing of statistics utilized in healthcare. *Prerequisite:* MCO 110.

## MCO 121 ICD Coding

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Medical coding is defined as the translation of diagnosis, procedures, services and supplies into numeric and/or alpha numeric characters for universal use in reporting and reimbursement. This course provides an introduction to the ICD-10-CM coding system (International Classification of Diseases, 10th Revision, Clinical Modification) introducing the student to specific coding issues within each body system and disease processes. This course is the stepping stone into the world of clinical coding and is utilized throughout the United States. *Prerequisites:* BIO 105 or BIO 117/118 and MET 111.

## MCO 125 CPT Coding

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course builds upon Clinical Coding System I providing an introduction to the coding of procedures and services utilizing ICD-10-CM coding system (International Classification of Diseases, current Revision, Clinical Modification), CPT (Current Procedural Coding) and HCPCS (Healthcare Common Procedure Coding System) introducing the student to specific coding issues within each body system and associated procedures. This course is the stepping stone into the world of procedural coding that is utilized throughout the United States. *Prerequisites:* BIO 105 or BIO 117/118 and MET 111.

## MCO 134 Intermediate ICD Coding

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will build upon the Basic ICD Coding course. Students will delve further into the complete health record, applying diagnostic and procedural codes. *Prerequisite:* MCO 121 ICD Coding.

# Course Descriptions

## **MCO 136 Intermediate CPT Coding**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs Lecture) \*15 wks

This course will build upon the Basic CPT Coding course. Students will delve further into the complete health record, applying procedural codes to reflect the intricate details of surgical procedures. *Prerequisite:* MCO 125 CPT Coding.

## **MCO 150 Medical Specialties and Pathophysiology**

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs Lecture) \*15 wks

The focus of this course will be on the pathophysiology of disease in different organ systems. This course will also include basic pharmacology as well as building on the anatomy and physiology discussed in Medical Terminology. Topics covered will include cells and cellular metabolism, study of disease, inflammation and tissue repair, the respiratory (ventilation) system, the circulatory system (perfusion), nutrition and the digestive system and the elimination systems, as well as some of the medications and treatments associated with these systems. *Prerequisites:* MET 111

## **MCO 299 Practicum**

3 Credits (0 Lecture 0 Lab 0 Shop 3 Field Exp.)

(45 Hrs. Field Experience) \*15 wks

This course provides hands on exposure in the field of coding and electronic health records. Students are required to complete 135 hours of clinical experience. This course also serves as the capstone MCO course. A review for the CPC or CCA credentialing exam will be conducted. *Prerequisites:* C or higher in MCO 121, 125 and MET 111.

## **Medical Terminology (MET)**

### **MET 111 Medical Terminology**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This is an entry level medical terminology course designed to introduce the student to terms and language commonly found in the medical and health care professions. The student builds vocabulary through the study of word structure by learning prefixes, suffixes and root words.

## **Music (MUS)**

### **MUS 101 Music Appreciation and History**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Music Appreciation and History is a one-semester survey of the Western music tradition, from the chant of the Middle Ages to the art music of this century. It includes study of the major composers, genres, and forms of each period. An understanding of musical style through repeated listening is a primary goal of the class.

### **MUS 111 Listening to Jazz**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs Lecture) \*15 wks

In this course the student will be able to demonstrate an understanding of the following concepts: The correct terms and usage to describe the fundamental musical elements of jazz, the origins of jazz and the characteristics of key stylistic periods from the music's inception until the present, the seminal artists and their important contributions. The students will be able to demonstrate the ability to: aurally recognize key historical styles of jazz; aurally recognize seminal jazz artists and corresponding masterworks as studied in the course; write and speak coherently about jazz, using appropriate terminology.

## **Nursing (NUR)**

*Students are reminded that they are responsible for prior knowledge. Supervised clinical experiences take place on nursing units within a structured health care setting. Pre and post conferences are designed to assist students to further utilize the nursing process and provide*

### **NUR 112 Foundations of Nursing/ Nursing Care of Adults**

9 Credits (5 Lecture 0 Lab 4 Clinical)

17 Hours/Week (5 Hrs. Lecture 12 Hrs Clinical) \*15 wks

This course emphasizes the acquisition of knowledge and skills by the student for the provision of basic patient care. Major focus areas for the student include professional behaviors, communication, techniques of

physical assessment, critical thinking, nursing process, patient teaching strategies and the management of time and resources for the student and the provision of care. The student uses the classroom, the laboratory and clinical areas for practice and discussion. *Prerequisites:* Admission to the Nursing Program; *Corequisites:* BIO 115, 116; ENG 101 or ENG 105.

### **NUR 115 Medication Preparation, Administration and Dosage Calculations**

1 Credit (1 Lecture 0 Lab 0 Clinical)

2 Hr/Wk (1 Hr. Lecture) \*7.5 wks

This course is designed for nursing students. It focuses on the safety and accuracy required for medication administration. Included will be the interpretation of drug orders (including standards and common abbreviations used in a drug order), understanding drug labels, oral and parenteral drug administration, reconstitution of solutions, pediatric and adult dosages based on body weight and body surface area, calculating and adjusting intravenous solutions, and dosage calculations using the formula, ratio and proportion or dimensional analysis approach. *Prerequisites:* Admission to the Nursing Program; *Corequisites:* BIO 115, 116, ENG 101 or ENG 105; NUR 112.

### **NUR 116 Role Transition - LPN**

3 Credits (1 Lecture 0 Lab 2 Clinical)

7 Hrs/Wk (1 Hr. Lecture 6 Hrs. Clinical) \*15 wks

This course is designed to assist the licensed practical nurse with the role transition to professional role of the associate degree nursing student. The emphasis in this course includes application of assessment, planning, intervention and evaluation of outcomes in the provision of holistic care to patients with common, well defined health problems. Major focus areas for the student include practice of the role of the student nurse, development of assessment skills, nursing care planning, communication with patients and families, generation of clinical judgments related to patient's assessed needs, increasing proficiency with nursing skills, patient teaching, and identification of student's own learning needs. *Prerequisites:* Completion of an approved Practical Nursing Program and current Maine LPN



# Course Descriptions

license and ENG 101 or ENG 105, BIO 115 and 116; Corequisites: PSY 101, BIO 117, 118.

## **NUR 121 Nursing Across the Life Span I**

10 Credits (6 Lecture 0 Lab 4 Clinical)  
18 Hrs/Wk (6 Hrs. Lecture 12 Hrs. Clinical) \*15 wks

The emphasis in this course includes application of assessment, planning, intervention and evaluation of outcomes in the provision of holistic care to patients with common, well defined health problems as well as patients in the childbearing/child rearing stage of life. Major focus areas for the student include practice of the role of the student nurse, communication with patients across the life span, growth and development issues, generation of clinical judgments related to patient's assessed needs, increasing proficiency with nursing skills, patient teaching, and identification of student's own learning needs. *Prerequisites:* NUR 112, ENG 101 or ENG 105; *Corequisites:* BIO 115, 116, 117, 118, PSY 101.

## **NUR 210 Pharmacology for Nurses**

3 credits (3 Lecture 0 Lab 0 Shop)  
3 Hr/Wk (3 Hr. Lecture) \*15 wks

This course is designed for third semester nursing students and provides an overview of the principles of pharmacokinetics and pharmacodynamics. The major drug categories are reviewed with emphasis on therapeutic use, action and adverse reactions. The role of the nurse and the use of the nursing process in assessment, safe administration and evaluation of patient response is emphasized. *Prerequisites:* BIO 117/118 and NUR 121.

## **NUR 212 Nursing Across the Life Span II**

9 Credits (5 Lecture 0 Lab 4 Clinical)  
17 Hrs/Wk (5 Hrs. Lecture 12 Hrs. Clinical) \*15 wks

This course builds on previous coursework while increasing the student knowledge and responsibility in the provision of care for two or more patients experiencing complex health needs. Emphasis is placed on effective communication with other health care team members, use of assessment

data, prioritization of patient needs and the formulation of clinical judgments to provide holistic nursing care. *Prerequisites:* All Level I (1st year) courses except NUR 134. LPN advanced placement students must complete NUR 116; *Corequisites:* BIO 211, 212, PSY 111, NUR 213.

## **NUR 213 Nursing Across the Life Span III**

9 Credits (5 Lecture 0 Lab 4 Clinical)  
17 Hrs/Wk (5 Hrs. Lecture 12 Hrs. Clinical) \*15 wks

In this course the student moves into the professional role of the AD nurse. Provision of holistic care through effective collaboration with the health care team, the patient and families, collection and analysis of relevant data and the formulation of clinical judgments for patients of all ages with more complex or multiple health needs becomes the focus of this course. Students assume responsibility for a group of patients practice delegation while working within the health care team in the provision of care. Students are encouraged to continue their own education through courses and/or review of professional resources. *Prerequisites:* NUR 212, BIO 211 212, PSY 111; *Corequisites:* COM 100, Humanities Elective, Gen. Ed. Elective.

## **NUR 299 Practicum: Nursing**

This course is designed to provide nursing students with a supervised experience in an area of clinical specialization which has been previously studied in didactic classes. Credit hours range from 1 to 2 credits at a formula of 45 hours of clinical practice equaling 1 credit hour. *Prerequisite:* Department Chair approval.

## **Occupational Health and Safety (OHS)**

### **OHS 102 Introduction to Occupational Health and Safety**

1 Credits (1 Lecture 0 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

This one credit course is designed to introduce students in disciplines other than Occupational Health and Safety to the fundamentals of workplace health and safety. Concepts of health and safety hazards and their control and the legal

framework of occupational health and safety will be covered. Students will receive a 10-hour card from the OSHA Training Institute in addition to academic credit.

## **OHS 111 Construction Safety & Health**

OHS 111 OSHA 10 hr. Training  
1 Credit (1 Lecture, 0 Lab, 0 Shop)  
7.5Hr/Wk (7.5 Hr. Lecture) \*2 weeks.

The OSHA 10 hour construction training course will be completed in 15hrs and is intended to provide construction workers with a basic knowledge of the most common safety and health hazards found on many construction sites. This construction training course also provides students with an overview of how the Occupational Safety and Health Administration (OSHA) operates. It is intended for workers in construction related jobs, like ground-up construction projects, demolition work, and major renovation projects.

## **OHS 115 Construction Health & Safety**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This class will examine the fundamentals of a construction safety and health program and the minimum requirements under the Federal Occupational Safety and Health Administration (OSHA). Students will receive a 30-hour OSHA Construction Safety and Health Training Card from OSHA at the successful completion of the course.

## **Parts and Service Management (PSM)**

### **PSM 100 Parts & Service Management I**

3 Credits (2 Lecture 0 Lab 1 Shop)  
5 Hrs/Wk (2 Hrs. Lecture 3 hrs. Shop) \*15 wks

This course is the first in a series of automotive related management courses. The operation of parts counters and service operations will be studied. A practical field experience at a cooperative business will complement the classroom theory.

# Course Descriptions

## PSM 101 Advanced Automotive Systems

3 Credits

This course explores all various automotive systems and their functions. Students will learn how to locate and identify components and their relationship to parts and service manuals. *Prerequisite:* PSM 105.

## PSM 105 Introduction to Automotive Systems

3 Credit (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course explores basic automotive systems and their functions. Students will learn how to locate and identify components and practice diagnostic techniques through online scenarios. Students will also take practice tests in preparation for future ASE certification.

## PSM 205 Parts & Service Management II

3 Credits (1 Lecture 0 Shop 2 Shop)  
7 Hrs/Wk (1 Hr. Lecture 6 Hrs. Shop) \*15 wks

This course is the final component in a series of automotive related management courses. Compliance with applicable agencies and a safe work environment will be reinforced. The effective use of human resources will finalize the classroom portion of the PSM courses. A practical internship at a cooperative business will complement the classroom theory.

## Philosophy (PHI)

### Critical Thinking

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course introduces the student to the principles of critical thinking and provides practice in applying these principles to everyday decision making and argument analysis. The student will learn to distinguish between rational thoughts and feelings, identify assumptions, identify the quality of evidence, clarify by asking questions, fair-mindedly analyze multiple viewpoints, and make reasonable judgments. Students will apply principles of clear thinking to evaluating messages

from the news media and advertising.

*Prerequisite:* SAT ERW score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.

### PHI 111 Introduction to Ethics

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course provides the students with an introduction to ethics, or moral reasoning. The value of studying ethics will be examined, and common ethical principles will be discussed and applied to everyday ethical decisions. A methodology for making sound ethical choices based on moral principles and likely outcomes will be introduced and practiced in class. Students will have an opportunity to examine specific ethical problems in a number of disciplines including law, business, medicine, and science, the overall emphasis of the course will be on practical ethical decision making.

### PHI 151 Introduction to Western Philosophy

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Philosophy 151 will examine the major philosophers and philosophies of Western thought starting with the early Greek and Christian thinkers, followed by an examination of the arrival of science and the new trend toward rationalism. The course ends with an investigation of the modern, more individualistic philosophies of Existentialism and Nihilism. Western Philosophy will also address the major philosophical questions regarding happiness, reason, emotions, and God. *Prerequisite:* SAT ERW score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.

### PHI 153 An Introduction to Eastern Philosophy

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Unlike Western faith-based religious tradition, Eastern thought is experiential. To that end, Philosophy 153 will not only

include a historical overview, but will also incorporate several primary texts from Hinduism, Buddhism, and Taoism to gain a deeper understanding. Topics will include: Eastern Philosophy's inquiries into happiness, the nature of reason, goals and desires, the function of emotions, Reincarnation, God, Enlightenment, as well as major spiritual figures. *Prerequisite:* SAT ERW score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.

## Physics (PHY)

### PHY 121 Technical Physics I (Lec.)

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will cover physical measurements, motion, vectors, concurrent forces, work and energy, rotational motion, gears and pulleys and non-concurrent forces. *Corequisite:* PHY 122 Lab; *Prerequisite:* MAT 105 or 122 with a grade of C or better.

### PHY 122 Technical Physics I (lab)

1 Credit (0 Lecture 1 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lab) \*15 wks

Experiments designed to support the subjects being introduced in Technical Physics I. *Corequisite:* PHY 121.

### PHY 142 Physics I (Lec.)

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Basics of statics and dynamics are investigated; including Forces, velocity and acceleration, dynamics of falling bodies, energy and work, momentum and impulse, circular motion and rotational dynamics. *Prerequisite:* MAT 122 with a grade of C or better, and HS Physics *Corequisites:* MAT 132 and PHY 143.

### PHY 143 Physics I (lab)

1 Credit (0 Lecture 1 Lab 0 Shop)  
2 Hrs/Wk (2 hrs. Lab) \*15 wks

Experiments designed to support the subjects being introduced in PHY 142 (lecture). *Corequisite:* PHY 142.

# Course Descriptions

## **PHY 221 Technical Physics II (Lec.)**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a continuation of Technical Physics I and includes: Strength of Materials, Fluid Systems, heat and temperature and thermal expansion of materials, the gas laws, electricity and magnetism and simple circuits. *Prerequisite:* PHY 121 with a grade of C or better; *Corequisite:* PHY 222.

## **PHY 222 Technical Physics II (lab)**

1 Credit (0 Lecture 1 Lab 0 Shop)

2 Hrs/Wk (2 hrs. Lab) \*15 wks

Experiments designed to support the subjects being introduced in Technical Physics II. *Corequisite:* PHY 221.

## **PHY 242 Physics II**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

A continuation of Physics I. Course content includes solids and fluids, temperature, heat and thermal expansion. Also introduced are Thermodynamics, vibrations and waves, sound, light and electricity. *Prerequisite:* PHY 142 with a grade of C or better. *Corequisite:* PHY 243.

## **PHY 243 Physics II (lab)**

1 Credit (0 Lecture 1 Lab 0 Shop)

2 Hrs/Wk (2 Hrs. Lab) \*15 wks

Experiments designed to support the subjects being introduced in PHY 242 (lecture). *Corequisite:* PHY 242. *Prerequisites:* PHY 142, 143.

## **PHY 296 Physics Directed Study**

Variable Credit (1-4)

This course is intended to meet the needs of students interested in expanding their knowledge of physics or advanced mathematical concepts. Topics will be based on need and interest. Performance contract is developed by student and faculty. *Prerequisites:* PHY 121 and 122 or PHY 142 and 143 with a grade of C or better.

## **Physical Fitness (PHF)**

### **PHF 101, 102, 103 etc. Physical fitness activity classes**

1 credit/30 hours

These courses will be available as they are

created (ex. Cardio Conditioning). These classes will be electives open to all students.

## **PHF 122 Kinesiology**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course covers the various types of levers of the musculoskeletal system and an understanding of the factors that contribute to human strength and power. Students will analyze movements in sports and exercise and make movement-oriented exercise prescriptions. Students will evaluate resistive force and power patterns of strength training movements and exercise devices. *Prerequisite:* BIO 105 or BIO 115 and 116.

## **PHF 150 Methods of Life Style Coaching**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This class is a foundation to support healthy individuals and those struggling with lifestyle-related chronic disease through lifestyle coaching. Students will gain skills to mobilize the internal strengths of their clients and offer external resources for sustainable change in their clients' lives. Students will learn coaching strategies as well as the core competencies necessary for a competent lifestyle coach to demonstrate.

## **PHF 155 Introduction to Exercise Science**

4 Credits (3 Lecture 1 Lab 0 Shop)

4 Hrs/Wk (3 Hrs. Lecture 1 Hr. Lab) \*15 wks

This course presents the basic scientific foundations and the practical application of techniques used in exercise science including the fundamentals of muscle physiology, human systems, energy systems and its acute/chronic adaptations to resistance and cardiorespiratory exercise. *Pre-requisites:* BIO 115/116 or BIO 105

## **PHF 197 Field Experience**

2 Credits (1 Lecture 0 Lab 0 Shop 2 Field Experience)

3Hrs/Wk (1 Lecture 2 Field Exp.) \*15 wks

This introductory field experience provides opportunity for practical application of knowledge gained through prior coursework in exercise science. The student will assist in the leadership of on and/

or off-campus programs, with special emphasis on either personal training experiences, group exercise instruction, or basic athletic training and sports injury evaluation. The focus is to expose PHF students to at least 3 career opportunities in their discipline. They will be exposed to the environment, skills, human relations, observations and training necessary to be successful in this career path. The one hour classroom session each week will help assist the student in professionalism, job sharing, and preparedness for each experience. *Prerequisites:* PHF 155.

## **PHF 204 Nutrition to Improve Human Performance**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course covers the principles of nutrition to support improvement in human health and fitness. Active individuals need to understand the importance of nutrition and metabolism for optimum weight, energy requirements and nutrients to support performance and recovery. The student will also learn pre-exercise, exercise and post-exercise nutritional requirements. *Prerequisite:* BIO 121.

## **PHF 207 Introduction to Injury Prevention and Management**

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The purpose of this class is to introduce the basic concepts of injury prevention and management. It will address sports related injuries, injury prevention, evaluation, treatment, management and rehabilitation and sports medicine related topics. Students will become certified in CPR, AED, basic first aid and basic sports medicine concepts in the field of athletic training. Students have to successfully complete CPR, AED and basic first aid to pass the course. *Pre-requisites:* PHF 155 and BIO 115/116 or BIO 105.

## **PHF 208 Exercise Testing and Prescription**

4 credits (3 Lecture 1 Lab 0 Shop)

5 Hrs/Wk (3 Hrs. Lecture 2 Hr. Lab) \*15 wks

Students will participate in client interviews to develop fitness goals and assess

# Course Descriptions

compatibility. The course will cover pre-participation health appraisal screening and recognize when to refer individuals to healthcare professionals. Students will understand and correctly administer proper fitness assessments on exercise clients in a safe manner. Students will understand apply concepts of strength training and aerobic endurance to design strength and aerobic endurance programs specific to client goals for healthy and special populations. *Prerequisite: PHF 155.*

## **PHF 250 Principles of Coaching & Motivation**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
Coaching methods and techniques are valuable skill sets used in a variety of work settings, which teaches an individual leadership, motivation, behavioral change, and application for success. This course will teach students how to apply these principles and techniques in their career path. *Prerequisite: PSY 101.*

## **PHF 251 Methods of Teaching Group Exercise**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course will provide students with the knowledge and experience to prepare and lead a safe and effective group exercise class for participants of all ages and abilities. The course will examine research-based exercise programming, teaching, evaluation, supervision and leadership in a variety of instructional class formats adapted to different environments. *Prerequisite: PHF 122.*

## **PHF 299 Practicum**

*4 credits (2 Lecture 2 field experience)  
12 hrs week (2 hr lecture 10 hrs field experience) \*15 wks*  
Building from PHF 197 Field Experience, the student continues assisting in the leadership of on and/or off-campus programs, with emphasis on personal training experiences, group exercise instruction, and athletic training. The focus of this practicum will be to identify the specific career path from the student's individualized plan which they will shadow for his/her work experience. Students

will be supervised, met with individually and as a group throughout the semester. *Prerequisites: PHF 122, 197, 202, and 204.*

## **Plumbing & Heating Technology (PHT)**

### **PHT 100 Plumbing Code**

*3 Credits (3 Lecture, 0 Lab, 0 Shop)  
3 Hrs/Wk (3 Lecture) \*15 wks*  
This course provides students with plumbing code requirements and fundamental importance of adhering to Uniform Plumbing Code.

### **PHT 103 Plumbing Technology I**

*5 Credits (2 Lecture, 0 Lab, 3 Shop)  
11 Hrs/Wk (2 Lecture 9 Shop)\*15 wks*  
This course introduces plumbing principles as they apply to the plumbing industry in light commercial and residential applications. Students learn basic plumbing concepts, plumbing lexicon and terminology, the use of critical plumbing tools and equipment, basics of jobsite safety, applications and installation for a residential plumbing system.

### **PHT 125 Plumbing Technology II**

*5 Credits (2 Lecture, 0 Lab, 3 Shop)  
11 Hrs/Wk (2 Lecture 9 Shop)\*15 wks*  
This course introduces advanced plumbing principles as they apply to the plumbing industry in commercial and residential applications. Students learn to identify a variety of fixtures, faucets, appliances, and materials in domestic water and drainage installations. *Prerequisite: PHT 103.*

### **PHT 130 Wells, Pumps, and Drainage**

*3 Credits (1 Lecture, 0 Lab, 2 Shop)  
7 Hrs/Wk (1 Lecture 6 Shop) \*15 wks*  
This course will provide students with a basic knowledge of wells, pumps and systems, sewer pumps and systems as well as cleaning drain lines.

### **PHT 140 Print Reading and Interpretation**

*2 Credits (2 Lecture, 0 Lab, 0 Shop)  
2 Hr/Wk (2 Lecture) \*8 wks*  
Introduction to print reading for plumbing

and HVAC students for residential and commercial applications. Course work includes study of specifications and information contained on paper as well as electronic construction drawings.

### **PHT 207 Heating I**

*4 Credits (1 Lecture, 0 Lab, 3 Shop)  
10 Hrs/Wk (1 Lecture 9 Shop)\*15 wks*  
This course provides an introduction to oil heating systems. Students will learn industry standards, safety, and how to efficiently install fuel tanks, piping, venting systems and distribution systems. This course prepares students for Maine Journeyman 1 & 2 oils - up to 15 GPH licensure. *Corequisite: PHT 225; Prerequisite: PHT 125 or HVT 180.*

### **PHT 209 Propane and Natural Gas I**

*4 Credits (1 Lecture, 0 Lab, 3 Shop)  
10 Hrs/Wk (1 Lecture 9 Shop)\*15 wks*  
This course provides students with the basic principles and practices of working with propane and natural gas to ensure safety and provide quality service. This course will help prepare students for NPGA CETP certification. *Prerequisite: PHT 125 or HVT 180.*

### **PHT 225 Maine Oil/Solid Fuel Code**

*1 credit (1 lecture, 0 shop)  
2 Hrs/Wk (1 Lecture) \*8 wks*  
This course provides an introduction to the laws and rules governing oil and solid fuel burning appliances in Maine. *Corequisite: PHT 207.*

### **PHT 257 Heating II**

*4 Credits (1 Lecture, 0 Lab, 3 Shop)  
10 Hrs/Wk (1 Lecture 9 Shop)\*15 wks*  
This course provides advanced knowledge and skills regarding the installation, maintenance, servicing, troubleshooting and repair of oil heating systems. This course prepares students for Maine Journeyman 1 & 2 oils - up to 15 GPH licensure. *Prerequisite: PHT 207.*

### **PHT 259 Propane and Natural Gas II**

*4 Credits (1 Lecture, 0 Lab, 3 Shop)  
10 Hrs/Wk (1 Lecture 9 Shop)\*15 wks*  
This course provides students with advanced knowledge and practices



# Course Descriptions

of working with propane and natural gas applications including methods of piping and distribution. This course will help prepare students for NPGA CETP certification. Prerequisite: PHT 209.

## **PHT 297 Externship**

*3 Credits (.5 Lecture, 0 Lab, 2.5 Shop)  
8 Hrs/Wk (.5 Lecture 7.5 Shop) \*15 wks*  
The externship experience provides the student with an opportunity to explore career interests in plumbing and heating while applying knowledge and skills learned in the classroom to a work setting. Prerequisites: PHT 207, PHT 209, and successful completion of OSHA 10-hour card and Department chair approval.

## **Political Science (POS)**

### **POS 150 Introduction to American Politics**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course will introduce the student to the fundamentals of American politics. Students will study and analyze the many different aspects of United States politics, including political culture, the founding period, the constitution, the federal system, public opinion and the mass media, campaigns and elections, political parties, interest groups, Congress, the presidency, the bureaucracy, the judiciary, public policies, civil liberties, civil rights and international and defense policies. In addition, the student will study and analyze how power operates as a part of political culture, various institutions and important actors within American politics.

### **POS 151 American State and Local Government**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course is intended to introduce the student to the essentials of sub-national government in the United States. We will study and analyze many different aspects of state and local politics, including: federalism, state constitutions, citizen participation, elections, political parties, interest groups, campaigns, governors, budgeting, the bureaucracy, state legislatures, the judiciary, local government, leadership and

governance, economic development, inter-governmental relations, and various public policies. Particular attention will be paid to state and local government within Maine. In addition, the student will study and analyze how power operates as a part of political culture, various institutions and important actors within sub-national government in the United States.

### **POS 160 Introduction to International Relations**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This introductory course is about the theory and contemporary history of global politics from an international relations perspective. Subjects include: the nature of personal leadership, the environment, power and decision making; causes of terrorism, war, peace, and relations between national security and domestic political stability; economic development and trade management, technology and the global revolution in communications and interdependence and ethnic and religious identities in regional and global politics.

### **POS 170 Sports and Politics**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course will introduce the student to the relationships between sports and politics in the contemporary world. In particular, the course will analyze how politics and laws affect the structure and outcomes of sports and how sports affect the structure and content of politics and laws. Specifically, the course will focus on the following themes: civil rights and sports, the legal and fiscal environment of sports, federal and state and local government regulations of sports, commercialism in sports and the globalization of sports. Both amateur and professional sports will be analyzed. The following specific sports and sporting events will be analyzed: the Olympics, baseball, soccer, hockey, and snowmobiling. In a more general way, football and basketball will also be analyzed. Within these, the following issues will be analyzed: the legal environment of competition and antitrust law, the responsibility and rights of owners, player associations and fans, the collective bargaining process, drugs and sports,

gender equality and law, international politics and amateur sports and safety and regulation of sports. There may be some field trips to sporting events.

### **POS 205 Introduction to Comparative Politics**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course offers a broad, comparative introduction to the structure and function of national political systems, with an emphasis on the structural and function attributes that distinguish democracies from non-democracies, and that distinguish different types of democracies and nondemocracies from each other. Additional substantive areas to be analyzed include the global environment, the social sources of power, the economic sources of power, demand, support and decision-making, system maintenance, force and military intervention and violence and political change.

### **POS 296 Special Topics in Political Science**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
The students in this course will analyze selected topics in political science. These topics will analyze various controversies in contemporary political science. The topics may be found in the political institutions, social institutions and public policy of selected countries. The special topic analyzed is not a regular course offering of the Social Sciences department. Since the topic covered in this class differs from year to year, students should seek further information from the instructor before registering regarding the particular topic that will be analyzed. Possible topics to be analyzed include: US presidential elections, civil liberties, terrorism, technology and politics and political participation.



# Course Descriptions

## Precision Machining Technology (PMT)

### PMT 103 Blueprint Reading and Sketching

3 Credits (.5 Lecture 0 Lab 0 Shop)

3 Hrs/Week (3 Hrs. Lecture)

This course is designed to teach the fundamentals of blueprint reading and sketching. Students will be taught to interpret engineering drawings in order to manufacture the objects they describe. Students will be taught the terminology used on drawings, plus abbreviations and symbols used to identify features of objects described on drawings. Students will learn to interpret drawings which comply with current ANSI/ASME Y14.1-2005 standards, as well as past standards.

### PMT 111 Introduction to Lathes

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with pertinent information for operating the metal turning lathe. An emphasis will be placed on maintaining a safe work environment. The principles of Lean Manufacturing will be demonstrated and applied to this course.

### PMT 112 Introduction to Manual Milling

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with a basic understanding of vertical milling machines. Emphasis will be on nomenclature, basic functions, and safety.

### PMT 118 Introduction to CNC Milling

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with the fundamentals to program, setup and operate Computer Numerical Control(CNC) Milling Centers.

### PMT 119 Introduction to CNC Lathes

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with the fundamentals to program, setup and operate Computer Numerical Control(CNC) Turning Centers.

### PMT 121 Introduction to Threading Processes

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with information to machine internal and external degree Unified Threads. The three wire method for thread inspection will be emphasized. *Prerequisite:* PMT 111 or faculty approval.

### PMT 122 Work Holding Methods for Milling

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with information to use different types of work holding devices in milling. Emphasis will be placed on students milling and assembling completed components. *Prerequisite:* PMT 112 or faculty approval.

### PMT 124 Applied Computer Numerical Control

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students the opportunity to program, setup and operate CNC machines. Students will have the opportunity to try the NIMS level I CNC milling and turning part. *Prerequisite:* PMT 118 or faculty approval.

### PMT 125 CNC Turning Methods

2 credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students the opportunity to program, set-up and operate CNC lathes. Students will have the opportunity to try the NIMS Level 1 turning part. *Prerequisites:* PMT 119.

### PMT 209 Geometric Dimensioning and Tolerancing

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Week (3 Hrs. Lecture)

This course is designed to introduce the student to the basic principles of geometric dimensioning and tolerancing related to the precision machining industry. The theory principles will be enforced through exercises in the quality control lab. Students will also be provided the opportunity to learn the theory and application of gaging. *Prerequisites:* PMT 103 or faculty approval

### PMT 211 Advanced Threading Processes

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with information for machining multiple start transmitting screw threads. Methods of measuring tapers will also be discussed. The principles of Lean Manufacturing will be demonstrated and applied to this course. *Prerequisite:* PMT 121 or faculty approval.

### PMT 212 Circular CNC Milling Processes

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with information to use different types of CNC milling operations. Students will learn to produce threads and slots on a CNC mill. Lean manufacturing concepts will be introduced to students. *Prerequisite:* PMT 124.

### PMT 214 Advanced Computer Numerical Control

2 Credits (.5 Lecture 1 Lab .5 Shop)

4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students the opportunity to produce complex parts on the CNC mills and lathes. Students will also be introduced to multiple setups, fixtures, and MasterCam to aid with the completion of projects. *Prerequisite:* PMT 125 or faculty approval.

# Course Descriptions

## **PMT 217 Introduction to Toolmaking**

2 Credits (.5 Lecture 1 Lab .5 Shop)  
4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will introduce the student to the realm of toolmaking. While the design of jigs, fixtures and stamping dies will be studied the course will focus more on the basic tool making practices and techniques used in their construction. *Prerequisite:* PMT 123, PMT 211, PMT 212 or faculty approval.

## **PMT 221 Advanced CNC Turning Processes**

2 Credits (.5 Lecture 1 Lab .5 Shop)  
4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students an opportunity to perform a variety of complex machining tasks on CNC lathes. Emphasis will be placed on the carbide tooling identification system. *Prerequisite:* PMT 214.

## **PMT 228 Metallurgy**

1 Credit (1 Lecture 0 Lab 0 Shop)  
1 Hr/Wk (1 Lecture) \*15 wks

This course develops familiarization with various metals used in the industry both ferrous and non-ferrous. The concepts of heat treatment by various methods and their relationship to tool steels are included in this course. The history and evolution of metals and their uses will be studied.

## **PMT 229 Advanced CNC Part II**

2 Credits (.5 Lecture 1 Lab .5 Shop)  
4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students the opportunity to set-up and run multi-axis CNC milling equipment. Students will also have the opportunity to use a tool setter and probe for set-ups. Emphasis will be placed of faster set-up times and cycle time reduction. *Prerequisite:* PMT 212 or faculty approval.

## **PMT 230 Introduction to CMM's**

2 Credits (.5 Lecture 1 Lab .5 Shop)  
4 Hrs/Wk (.5 Hr. Lecture 2 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students with the theory and fundamentals to program' set-up and operate Coordinate Measuring

Machines(CMM's). *Prerequisite:* PMT 209 or 210.

## **PMT 240 2-D Cam Programming**

2 Credits (2 Lecture 0 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

This course is designed to introduce the basic aspects of CNC milling and lathe programming using MasterCam. Students will be provided the resources to create a CNC program from a blueprint. *Prerequisite:* PMT 124.

## **PMT 270 Introduction to Solid Modeling**

3 Credits (3 Lecture 0 Lab 0 Shop)

This course will provide students the opportunity to learn about three dimensional solid modeling, create a drawing from a solid model, and create an assembly from

## **PMT 272 Advanced Inspection Methods**

2 Credits (2 Lecture 0 Lab 0 Shop)

This course is designed to provide students the opportunity to learn about reading multiple level blueprints and interpret the blueprints to determine and carry out the inspection process. Knowledge and skills needed to inspect machined parts, to understand why inspection is important, and what is important about inspection. Inspection methods will range from inspection using granite plates in conjunction with indicators and digital heights gages, using snap gages, functional gages, optical comparators, and coordinate measuring machines. *Prerequisite:* PMT - 204

## **PMT 274 Advanced Cutting Tools**

1 Credit (1 Lecture 0 Lab 0 Shop)

This course is designed to give students the opportunity to learn about modern Computer Numerical Control (CNC) cutting tools. Emphasis will be placed on tool selection, insert and toolholder identification, carbide grade selection, and the theory behind cutting tools. Students will gain knowledge needed to decide which tools are best suited to machine parts on modern CNC machines most efficiently according to the part's geometry, material, and available machines. multiple solid modeling parts.

## **PMT 276 Advanced Cam Programming**

2 Credits (2 Lecture 0 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

This course will provide students the opportunity to learn the programming principles three dimensional parts for vertical milling centers, live tooling for turning centers, and spindle probing for complex parts.

## **PMT 279 Multi Axis CNC Lathe**

3 Credits (.5 Lecture 2 Lab .5 Shop)  
6 Hrs/Wk (.5 Hr. Lecture 4 Hrs. Lab 1.5 Hrs Shop) \*15 wks

This course will provide students the opportunity to learn advanced set-up and operation of CNC lathes. Students will have to complete parts using a tailstock as well as live tooling.

## **PMT 281 3-D Surface Milling**

3 Credits (.5 Lecture 2 Lab .5 Shop)  
6 Hrs/Wk (.5 Hr. Lecture 4 Hrs. Lab 1.5 Hrs Shop) \*15 wks

This course will provide students the opportunity to program, set-up and operate 3 axis CNC Milling Centers for advanced milling operations with an emphasis on three dimensional milling. Students will have to use spindle probes to pick-up work offsets and CMM's for part verification.

## **PMT 282 Multi Axis Cam Programming**

2 Credits (2 Lecture 0 Lab 0 Shop)  
2 Hrs/Wk (2 Hrs. Lecture) \*15 wks

This course will provide students an opportunity to learn the programming principals for 4 axis vertical and horizontal CNC milling centers and 5 axis vertical CNC milling centers.

## **PMT 285 4 and 5 Axis CNC Milling**

3 Credits (.5 Lecture 2 Lab .5 Shop)  
6 Hrs/Wk (.5 Hr. Lecture 4 Hrs. Lab 1.5 Hrs. Shop) \*15 wks

This course will provide students the opportunity to program, set-up and operate 4 and 5 axis horizontal and vertical CNC Milling Center. Students will be exposed to spindle probing and CMM operation to verify part dimensions.

# Course Descriptions

## Psychology (PSY)

### **PSY 101 Introduction to Psychology** 3 Credits (3 Lecture 0 Lab 0 Shop) 3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is an introduction to the scientific study of human behavior and its application to everyday life situations. Among the topics discussed are physiological foundations of behavior, altered states of consciousness, emotion, learning, and thinking. Using these topics as a basis for discussion, students will further explore the following topics: personality, interpersonal communication, conflict, group processes, behavior disorders and therapies, and industrial psychology.

### **PSY 111 Developmental Psychology** 3 Credits (3 Lecture 0 Lab 0 Shop) 3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course is a multi-disciplinary study of life span development from prenatal and postnatal stages through infancy, childhood, adolescence, adulthood, old age, and death. Included will be discussions of genetic, environmental, psychological, and sociological influences of the development of and changes in physical, cognitive and language, and psychosocial domains of individuals.

### **PSY 114 Child Development**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

Development of the young child, from conception to pre-adolescence, will be studied through presentation of theory, observation of children, and review of the current research. This will provide a holistic content for understanding the many variables that influence the on-going growth and development of young children. This course will also provide the basis for creating developmentally appropriate curriculum for children birth through age eight years.

### **PSY 116 Psychology of Group Dynamics**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will examine the theories, history, and stages of group development, group dynamics and processes, distinguish between the various types, uses and functions of groups. Identification of the

major components of groups such as roles, rules, structure, norms, cohesion, conflict, leadership roles and styles will be explored. Emphasis will be on the principle dynamics of group interaction, group decision-making, and these may be applied in the therapeutic milieu, and within organizations. Students will demonstrate a basic knowledge and demonstration of skills useful in working in and with groups, through participation in structured exercises.

### **PSY 120 Psychology in the Workplace**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course presents a framework for understanding behaviors and interactions in the workplace. Major topics include communication, structure and function of groups and organizations, employer and employee relations and maintaining physical and mental health in the workplace. Class discussions and projects will focus on helping the student apply the principles to the workplace.

### **PSY 151 Interviewing and Counseling**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

The purpose of this course will be to present an overview of the major contemporary counseling theories and various techniques of interviewing, kinds of interviewing, and issues relevant to interviewing, such as confidentiality, case recording and nonverbal communication. Students will be actively involved in the integration of theoretical concepts and practical skills. The course will include practical exercises in the various techniques and methods specifically used in the human services field. Prerequisites: Completion of HUS 112 and PSY 101, with a grade of C or better.

### **PSY 201 Social Psychology**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will examine individual human behavior in social contexts. The cognitive, symbolic interaction, exchange, role-reference group, and dramaturgical approaches are explored. An emphasis will be placed on language and communication, inter-group conflict and conflict resolution,

social judgments and decisions attitudes, perceptions of others, social influence, attraction, aggression, and group pressure.

### **PSY 202 Developmental Disabilities and Psychosocial Rehabilitation**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks

This course will present an overview of current theoretical and philosophical perspectives relating to the day-to-day problems of those with mental, physical and developmental disabilities including mental retardation, autism, cerebral palsy, epilepsy, TBI and other nervous symptom disorders. The rehabilitation process will be examined, including the history and background, legislation, basic principles and philosophy. Also considered are the steps in the rehabilitation process, historical attitudes toward people with disabilities, the medical model and independent living programs. Course content and activities will enable students to recognize ways in which disability affects individuals as members of families, groups, organizations and communities. Course focus will also be on exploring techniques used in various life stages and reviewing innovative ways to overcome apathy and discrimination in populations. Additional focus will be on developing the knowledge and basic skills necessary for rehab goal planning, functional assessment, and direct skills teaching along with job development, analysis, matching and retention. Major emphasis is given to the operation of the state vocational/federal system. Ethical and legal issues such as self-determination, strategies for independence and nondiscrimination will be addressed.

### **PSY 204 Vocational Aspects of Disability and Vocational Rehabilitation Counseling**

3 Credits (3 Lecture 0 Lab 0 Shop)  
3 hrs/wk (3 Hrs. Lecture) \*15 wks

The purpose of this course will be to present a survey of the historical, sociological, theoretical, legislative and operational foundation of vocational rehabilitation counseling and service delivery along with the vocational aspects of disability. Specifically how these issues relate to persons with disabilities, to include, physical, intellectual, behavioral and

# Course Descriptions

psychological will be addressed. Students will examine and analyze philosophical, historical, legislative and organizational structures; vocational rehabilitation and related programs; referral and service delivery systems; the vocational rehabilitation process; administration of rehabilitation programs and professional and ethical issues. *Prerequisites: PSY 101 and HUS 112 with a grade of "C" or better.*

## **PSY 210 Behavior Analysis and Management**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course presents a framework for observing, analyzing, and managing behavior. The principles of operant conditioning will be discussed, emphasizing ways the environment can be managed so that the individual's behaviors can be managed within family, school and other social services agencies, and work settings. *Prerequisite: PSY 101.*

## **PSY 212 Abuse, Trauma and Recovery**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course examines human adaptations to traumatic events including various types and sources of violence and abuse. The historical and social contexts in which abuse and trauma are identified will be explored. Stages of recovery, and an intervention framework for the human service worker with traumatized people will be examined. Topics included: domestic violence, sexual abuse, workplace violence of people over the life course.

## **PSY 296 Special Topics in Psychology**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
Students in this course will analyze selected topics focused on various individual and social patterns in contemporary psychology. The special topic analyzed is not a regular course offering of the social sciences department. Topics covered are frequently changed, so students should seek further information from the instructor before registering. Possible areas to be

analyzed include: counseling, industrial organizational, professional issues and ethics, research methods, cognitive, developmental, family, social, and general. Possible topics to be addressed include: close relationships, personality, abnormal psychology and diagnosis, and persuasion.

## **Real Estate (REE)**

### **REE 101 Sales Agent Course**

*4 Credits (4 Lecture 0 Lab 0 Shop)  
4 Hrs/Wk (4 Hrs. Lecture) \*15 wks*  
This course provides students with sufficient competency in real estate to sit for the Maine Real Estate Commission Sales Agent Exam. Students who complete this course can apply for the exam. Topics include license and contract law, the listing process, types of mortgages, real estate math, and the negotiating and closing process. This course is subject to annual review and approval by the Maine Real Estate Commission.

## **Religion (REL)**

### **REL 101 Comparative Religion**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
Are religious beliefs vastly different from one another? Are they a major cause of strife or a source of peace? What are the similarities? Can science and religion coexist? Does God even exist? The course seeks answers by examining the major religious traditions of the world. From the West – Christianity, Judaism, Islam. From the East – Hinduism, Buddhism, Taoism. In addition, lesser known beliefs such as Paganism, Wicca, Scientology, and those of Native Americans may be explored. A textbook, primary sources, and religious documents will enable a more comprehensive understanding. *Prerequisites: SAT ERW score of 420 or higher or Reading Accuplacer score of 68 or higher and Writeplacer Accuplacer score of 5 or higher or completion of ENG 090 or ESL 101 with a C or better.*

## **Social Science (SSC)**

### **SSC 110 Occupational Health and Safety in American Society**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course is designed to introduce students in disciplines other than Occupational Health and Safety to the fundamentals of workplace health and safety. Development of workplace health and safety programs, concepts of health and safety hazards and their control and the legal framework of occupational health and safety will be covered. The economic, social, psychological and historical impact of Occupational Health and Safety will be discussed.

### **SSC 296 Independent Study in Social Science**

*3 Credits - Number of hours per week to be determined by Advisor*  
This course is designed to allow students to work on a semester long project in one of the social sciences. The project will be developed by the student in conjunction with the instructor of the course. The student will meet with the instructor periodically through the semester to ensure the project objectives are being met. *Prerequisites:* The student must have completed (12) credit hours in a catalog program, be in good academic standing, be recommended by his or her advisor, and meet with the course instructor.

## **Sociology (SOC)**

### **SOC 101 Introduction to Sociology**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course is an introduction to the study of influences of social and cultural factors on human behavior. Among topics discussed are culture; conformity/non-conformity; equality/inequality of different races, sexes, and ages; social institutions; group processes; and how change occurs in society.

### **SOC 200 Issues in Diversity**

*3 Credits (3 Lecture 0 Lab 0 Shop)  
3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*  
This course will examine issues related to



# Course Descriptions

diversity between families, in workplaces and schools, and other societal settings. Topics related to race, age, gender, disability, and cultural background will be explored and how these affect minority and majority relations in the United States. Appreciation for different cultural backgrounds and how the global nature of business is affected by diversity today.

## **SOC 201 Sociology of Aging**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course surveys the biological, social psychological, and social aspects of the aging process. Students study aging as a developmental stage and explore current issues such as ageism, mandatory retirement, sex, crime, and intergenerational communications. Topics covered include social conditions, economics, and politics as they affect the aged, as well as community responses to problems confronting the elder population. Students examine public, voluntary, and self-help (advocacy) programs and assess their ability to meet the needs of aging adults in such areas as recreation, income maintenance, retirement, housing, transportation, mental and physical health.

## **SOC 210 Crime and Deviance**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will examine delinquency and crime in society. Discussions will include critical analysis of theories, causes, and treatment of delinquents and criminal offenders. Crime associated with modern technology and other white collar crime and their effect on society will be explored.

## **SOC 215 Sociology of Gender**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will examine gender from a sociological perspective. Factors that affect gender relations, inequality and communication will be discussed, with special emphasis given to theoretical approaches, socialization, and power differentials. How gender is implicated in our social institutions such as the educational system, workplace, family, criminal justice system, and government will be explored. How gender shapes more

micro interactions and the relationship between gender in the macro setting of social institutions and micro setting of personal interactions will also be addressed. Topics will include: gender in education and work; gender in intimate relationships; and gender, crime and justice.

## **SOC 220 Sociology of the Family**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course will examine traditional and current trends in families. The dynamics of social interactions within the family will be presented. The diversity of the modern family will be discussed. Further examination of how this diversity of families affects other social institutions, such as the economy (via business and workplaces) and education (via schools and other community agencies).

## **SOC 230 Human Sexuality**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course deals with sex as it relates to the individual, family, group and society. Historical and cultural perspectives on contemporary American sexuality; knowledge, attitudes, and practices; sexuality over the life cycle, socialization; affection, interpersonal attraction; marriage, law, other institutions will be addressed.

## **SOC 296 Special Topics in Sociology**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

The students in this course will analyze selected topics in sociology. These topics will analyze various social patterns in contemporary society. The special topic analyzed is not a regular course offering of the social sciences department. Since the topic covered in this class differs from year to year, students should seek further information from the instructor before registering regarding the particular topic that will be analyzed. Possible areas to be analyzed include: family and life course, research methods, social change and development, social deviance and mental health, social organization, social psychology, social inequality, and general. Possible topics to be addressed include: gender roles, race and ethnic relations, aging, deviance and criminology.

## **Spanish (SPA)**

### **SPA 101 Beginning Spanish I**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

An introductory course in Spanish with emphasis on development of listening comprehension, speaking, reading and writing skills. For students who have had no Spanish or one year of high school Spanish.

### **SPA 102 Beginning Spanish II**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

Continuation of SPA 101. Emphasis on development of listening comprehension, speaking, reading and writing skills.

*Prerequisite: SPA 101 or 2 years of high school Spanish.*

## **Theater**

### **THE 101 Introduction to Theater**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hr/Wk (3 Hr. Lecture) \*15 weeks*

This course introduces students to theater as a collaborative, multi-disciplinary art form. It examines the nature of theater, its origins, its position in our culture and the basic elements that come together in modern theater practice: performance, directing, design and playwrighting. The course will also give students guiding principles for viewing and responding to the theater they see. Students can expect to participate in theater exercises to learn about performance, to read plays, to do small design projects, and to see at least one professional theater production. A research project with a partner will culminate with in-class performances. There may be modest expense for tickets. No previous theater experience necessary.

### **THE 102 Introduction to Acting**

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hr/Wk (3 Hr. Lecture) \*15 weeks*

This is an active hands-on course that introduces students to the basics of stage acting including voice production, physical expression, stage conventions, character development and text interpretation.



# Course Descriptions

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Group exercises will be interspersed with discussion, viewing and responding to student performances, the occasional brief lecture and video. The class will attend and write about one professional show\* (required). Students will present rehearsed, fully memorized, in-class performances of one monologue and two scenes. While there will be class time dedicated to rehearsals, at least half of the rehearsals for the in-class performances must take place outside of class meeting time. Assigned reading will include chapters from the required text, one play and miscellaneous brief articles. Written work will include weekly e-journal entries, monologue and scene script scores, a written response to a professional production and a final scene project portfolio. We will attend a professional theater production. Ticket price and transportation are the responsibility of the student.

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## Women's Studies (WST)

### WST 101 Women's Studies

*3 Credits (3 Lecture 0 Lab 0 Shop)*

*3 Hrs/Wk (3 Hrs. Lecture) \*15 wks*

This course employs a range of interdisciplinary sources in order to examine women's positions in and contributions to society. This course covers a broad scope of issues in Women's Studies, including definitions of feminism, the role of gender in social interaction, women of color, women's sexuality, health and the female body, women in mythology, women in the workplace, violence against women, images of women/women's self-image, and women and aging. Students will be asked to explore their own beliefs and attitudes, as well as the attitudes of societies. The course will look at commonalities and differences among women, and investigate the multiple dimensions of women's experiences. Part of the course will be to consider the ways in which institutions (education, the workplace, family) influence women's lives. Weekly assignments require writing and reading a variety of texts.

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# Administration and Faculty

**Abbott, Develan, Librarian**

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B.A., Saint Joseph's College of Maine

**Alexander, Donna, Retention & Transfer Coordinator**

TRIO

A.S., Central Maine Community College; B.S., University of Maine  
Augusta

**Arienti, Rosalie, Department Chairperson**

Life Sciences and Allied Health

B.A., Boston University; M.S., Tufts University

**Ayotte, Crystal, Instructor**

Nursing

M.S.N., University of South Alabama

**Barth, Barbara, Gender Equity Coordinator**

Student Services

B.S., Niagara University; M.A., University of Connecticut;

Master of Divinity, Lutheran School of Theology

**Berg, Eric, Admissions Representative**

Student Services

A.A.S., Central Maine Community College

B.S. University of Maine at Augusta

**Bernier, Dennis, Instructor**

Graphic Communications

A.A.S., Central Maine Community College

**Blais, Jean, Student Services Representative**

Student Services

Cert., Washington County Community College

A.A., Central Maine Community College

**Blois, John, Instructor**

Humanities

B.A., M.A., Salem State College

**Bolding, Richard, Department Chairperson**

Precision Machining Technology

A.A.S., Central Maine Community College

**Bolduc, Stephen, Instructor**

Precision Machining Technology

A.A.S., Central Maine Community College;

B.S., University of Southern Maine

**Bolstridge, Ronald, Director of Institutional Research**

Planning and Public Affairs

B.S., University of Maine;

M.B.A., Southern New Hampshire University

**Bonney, Meridith, Assistant Director of Registration & Records**

Administration

A.S., A.A.S., Central Maine Community College

**Boucher, Robert R., Dean of I.T. and Chief Information Officer**

Information Technology

A.S., A.A.S., Central Maine Community College; B.S. University of  
Southern Maine; MCP; A+ Certified

**Bouttenot, Denis, Department Chairperson**

Mathematics and Physical Science

B.S., Lowell Technological Institute;

M.B.A., University of Southern Maine

**Bowden, Ethel, Department Chairperson**

Humanities

B.A., Colby College; M.S., University of Southern Maine

**Bowie, John, Director of Financial Aid and Student Information Services**

Student Services

B.A., University of Maine

**Brewer, Margaret, Department Chairperson**

Business Administration and Management

B.S., St. Joseph's College; M.S., Southern New Hampshire University;

Grad Cert., Kaplan University

**Charlton, Terry, Director**

TRIO

B.A. Boston College; M.Ed. Emmanuel College

**Cook, Kevin V., Instructor**

Computer Technology

B.A., University of Maine at Farmington; A+ Certified; Net+ Certified

**Crossley, Todd, Evening Administrator & Assistant to the Deans**

Administration

B.S., Bentley College

**Daigle, Tina, Instructional Designer**

Academic Affairs

B.A., SUNY Potsdam; M.S. College of Saint Rose M.S. Ed.D., University  
of Phoenix

**Daniels, Alyson, Events Coordinator**

Workforce Development

B.A., M.S., Southern New Hampshire University

**Daye, Dawn, Financial Aid Representative**

Student Services

B.A., University of Southern Maine

**Dionne, Catherine, Instructor**

Humanities

B.S., Massachusetts Institute of Technology; M.A., Boston College

**Doak, Stephen, Instructor**

Business Administration and Management

B.S., University of Maine; M.S., Husson College

**Doyle, Brianna, Librarian**

Learning Commons

B.A., Hannibal-LaGrange University; M.S., Simmons College

**Drown, Diana, Instructor**

Life Sciences and Allied Health

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**Dundore, Daniel, Director Learning and Advising Center**

Student Services

B.A., Baptist Bible College; M. Div. Grand Rapids Theological Seminary

# Administration and Faculty

**Durr, Jannie**, *Academic and Transfer Advisor*  
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B.A., Bethany College

M.B.A., Southern New Hampshire University

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B.A., M.A., Bloomsburg University of Pennsylvania

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Student Services

A.A., University of Southern Maine

**Griffin, Richard T.**, *Dean of Finance and General Services*

B.S., University of Southern Maine

M.S., Husson University

**Hamel, Nicholas**, *Dean of Student Services*

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A.S., Central Maine Community College; B.S., University of Southern Maine; M.B.A., Thomas College

**Hawley, Michelle**, *Dean of Workforce & Professional Development*  
Workforce & Professional Development

A.A.S., Central Maine Community College; B.S., M.S. Ed., University of Southern Maine

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**Holt, Frankie**, *Department Chairperson*

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**Hughen, Andrew**, *Instructor*

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**Iadonisi, Carmin**, *Instructor*

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B.S., University of Massachusetts; N.D., University of Bridgeport College

**Joiner, Jeff**, *Instructor*

Electromechanical Technology

A.S., Vermont Technical College; B.S., University of Southern Maine

**King, David**, *Instructor*

Criminal Justice

B.A., University of Southern Maine; M.S., Southern New Hampshire University

**Kinney, Sharon**, *Instructor*

Nursing

M.S., St. Joseph's College

**Knapp, Scott E.**, *President*

Administration

B.A., The University of Wisconsin; M.A., Kutztown University of Pennsylvania; Ed.D., Temple University

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**Lee, Christine**, *Learning & Advising Specialist*

B.S. University of Maine Augusta

**Libby, Betsy**, *Dean of Academic Affairs*

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B.A., University of Maine Orono; M.A., Ball State University

Ed.D., NorthCentral University

**Lopez, Laurie**, *Instructor*

Business Administration and Management

B.S., Northeastern University; M.S.A., Boston University

**Lyons, Jennifer**, *Assistant to the Academic Dean/Disability Services Coordinator*

Academic Affairs

A.A.S., Westbrook College

**Maalim, Abdimalik**, *Learning and Advising Representative*

A.A.S. Central Maine Community College

**Madawala, Rathnayaka**, *Instructor*

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B.S., University of Kelaniya; Ph.D., Western Michigan University

**Matzinger, Michael**, *Department Chairperson*

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B.A., Southwestern University; M.F.A., University of Alaska

**McManus, Kathleen**, *Department Chairperson*

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B.S.N., M.S.N., University of Southern Maine; Registered Nurse; COHN-S

**Meador, Eric**, *Learning and Advising Specialist*

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**Miller, Peter**, *Instructor*

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M.S., University of Southern Maine

**Millett-Cordwell, Chyanna**, *Admissions Representative*

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M.S., Southern New Hampshire University



# Administration and Faculty

**Montegut, Kathleen**, *Instructor*

Nursing  
B.S., Salve Regina University; M.S.N., University of Maine

**Moreno, Daniel C.**, *Department Chairperson*

Architectural and Civil Engineering  
A.A.S., Central Maine Community College; Registered/Licensed Architect, ME; B.A., University of Maine Augusta

**Moreno, Judith L.**, *Director*

Library Services  
B.A., St. Michael's College; M.L.I.S., University of South Carolina; C.A.S., University of Southern Maine.

**Morong, Andrew**, *Director of Admissions and High School Relations*

Student Services  
B.A., University of Maine M.A. Southern New Hampshire University

**Morris, Jesse**, *Department Chairperson*

Human Services  
B.A., Shepherd College; M.S., Duquesne University; Ph.D., Walden University

**Nadeau, Maurice J.**, *Department Chairperson*

Electromechanical and Telecommunications Programs  
A.A.S., Central Maine Community College; B.S., University of Southern Maine; Licensed Journeyman Electrician, State of Maine

**Oken, Elizabeth**, *Director of Placement and Transfer Services*

Student Services  
B.A., Regis College; M.Ed., American International College

**Ordway, Lester**, *Instructor*

Automotive Technology - Ford ASSET  
A.S.E. Master Certified, Automotive, L1 Advanced Engine Performance; EPA Automotive Emission Trainer; A.S.E. Air Conditioning Certification; FMC Master Technical

**Owen, Barbara**, *Dean of Human Resources & Chief of Staff to the President*

Administration  
A.A., Thomas Edison State College; B.A., University of Maine at Augusta  
H.R. Certification, University of Maine Augusta

**Paradis, Christopher**, *Training Coordinator*

Workforce Development  
B.S., University of Maine; M.S., Husson University

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Culinary Arts  
A.A.S. Central Maine Community College; B.A., Le Cordon Bleu College of Culinary Arts

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B.S., University of Maine; M.S. Ed., University of Southern Maine

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**Rayburn, Casey**, *Instructor*

Automotive  
A.A.S., Central Maine Community College

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**Sampson, Sonya**, *Director of Registration & Records*

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**Seymour, Heather**, *Director of Communications*

B.S., University of Maine; M.S., Lasell College

**Sheehy, Connor**, *Admission Representative*

Student Services  
B.S., Franklin Pierce University

**Smith, Jessica**, *Instructor*

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B.A., SUNY Fredonia; M.F.A., Minnesota State University at Mankato

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Business Office

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Registrar's Office

**Charest, Lenore**, Information System Support Specialist II  
Information Technology Services

**Daigle, Robert**, Food Service Manager  
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Business Office

**Gervais, Dan**, Facilities Maintenance Specialist I  
Maintenance Department

**Graham, Dan**, Facilities Supervisor  
Maintenance Department

**Groleau, Paul**, Facilities Maintenance Specialist I  
Maintenance Department

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Maintenance Department

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Maintenance Department

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Central Services

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Information Support Specialist II

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# Directions to the College

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## ***From Maine Turnpike Exit 75, Auburn***

From the exit turn left on to Route 4 following signs toward Auburn (and directional signs for Central Maine Community College). Go north for about 6 miles which takes you to Center Street. Continue on Center Street through town, past fast food restaurants, etc. Just under the overpass and before the Auburn Mall, turn left at the signal on to Mt. Auburn Avenue. At the next traffic light bear right on to Turner Street. Bear left to stay on Turner Street after you pass St. Mary's health facility. The campus is about ½ mile ahead on your left.

## ***From Maine Turnpike Exit 80, Lewiston***

Go left on Alfred Plourde Parkway about .4 miles before taking the second exit onto Lisbon Street (Rt 196 West). Go toward Lewiston on Lisbon Street 1.2 miles to the 4th light and turn right on to East Avenue. Go about 1.4 miles and turn left at the 6th light on to Russell Street. Continue on Russell Street to the overpass. Take the overpass into Auburn and continue to the first traffic light (do not exit before the end). At the traffic light bear right on to Turner Street. Bear left to stay on Turner Street after you pass St. Mary's health facility. The campus is about ½ mile ahead on your left.