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Academic Calendar 2009-10

FALL 2009

Thursday, August 20	Faculty and Staff Meetings
Monday, August 24	First Day of classes
Monday, August 31	Last day to add courses without permission from instructor
Monday, September 7	Labor Day (no classes)
Tuesday, September 8	Last day to drop or challenge courses
Saturday, October 10	Fall recess (begins after all classes)
Wednesday, October 14	Classes resume
Friday, October 23	Mid-semester and last day to drop courses without academic penalty
Wednesday, November 11	Veterans Day (no classes)
Tuesday, November 24	Thanksgiving recess (begins after all classes)
Monday, November 30	Classes resume
Wednesday, December 16	End of Semester (after all classes)

SPRING 2010

Wednesday, January 6	Faculty and Staff Meetings
Thursday, January 7	Faculty and Staff Meetings
Monday, January 11	First day of classes
Monday, January 18	Martin Luther King, Jr. Day (classes in session)
Monday, January 25	Last day to add classes without permission from instructor
Monday, February 15	Last day to drop classes and challenge courses
Monday, February 15	President's Day (no classes)
Friday, March 12	Mid-semester and last day to drop courses without academic penalty
Saturday, March 13	Spring recess (begins after all classes)
Monday, March 22	Classes resume
Monday, April 19	Patriots Day, (classes in session)
Monday, May 3	End of Semester (after all classes)
Wednesday, May 5	Commencement (tentative)

Summer I 2010

Monday, May 10	First day of classes
Monday, May 17	Last day to drop classes and challenge courses
Monday, May 31	Memorial Day (no classes)
Monday, July 5	Independence Day observed (no classes)
Monday, August 9	End of Semester (after all classes)

Summer II 2010

Monday, May 10	First day of classes
Monday, May 17	Last day to drop classes and challenge courses
Monday, May 31	Memorial Day (no classes)
Monday, June 21	End of Semester (after all classes)

Summer III 2010

Monday, June 28	First day of classes
Monday, July 5	Independence Day observed (no classes)
Tuesday, July 6	Last day to drop classes and challenge courses
Monday, August 9	End of Semester (after all classes)

Please note: Central Maine Community College reserves the right to revise, amend or change this calendar without prior notice.

Notice of Non-Discrimination

Central Maine Community College does not discriminate on the basis of race, color, national origin, sex, disability, or age 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, 1250 Turner Street, Auburn, ME, 04210, 207-755-5233, bowen@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, e-mail OCR.Boston@ed.gov, internet <http://www.ed.gov/about/offices/list/ocr/index.html?src=oc>; 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/>. The College also does not discriminate on the basis of sexual preference or marital, parental, or veteran's status. Inquiries about the College's policies that prohibit discrimination on these bases may be directed to the Affirmative Action Officer or MHRC identified above.

General Information

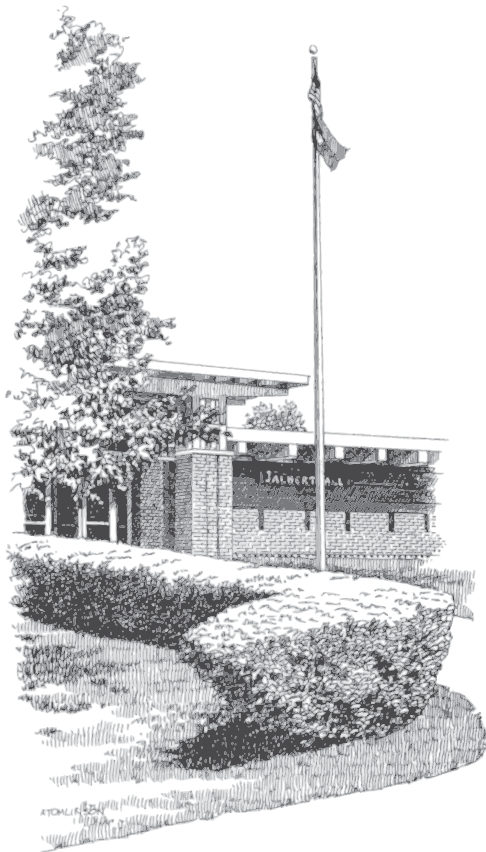
A Message from the President

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 job placement coordinator will help you find the job that will launch your new career and advisors will help you decide how and 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 Association of Schools and Colleges, Inc., a non-governmental, nationally-recognized organization, which certifies public and private colleges and universities throughout New England that meet its standards.

An accredited school or college is one that 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 New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality 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 status of the institution's accreditation by the New England Association should be directed to the President of the College. Individuals may also contact the Association:

New England Association of Schools and Colleges
209 Burlington Road
Bedford, Massachusetts 01730-1433
Tel: (617) 271-0022
Fax: (617) 271-0950

General Information

About Central Maine Community College

Established by the 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 are located at Bangor, Calais, Fairfield, Presque Isle, South Portland, and Wells.

Governance

The Maine Community College System is governed by a Board of Trustees appointed by the Governor. Policies and decisions of the Board are implemented through the President of the System, 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.

Mission

Central Maine Community College provides quality, accessible college education and lifelong learning opportunities. Therefore, we provide career and technical education; education for transfer to baccalaureate programs; and services to support economic development and community vitality.

To achieve the mission, Central Maine Community College offers:

- quality career and technical education that prepares graduates for immediate employment and continued education
- quality transfer programs that prepare graduates for continued education at the baccalaureate level
- quality lifelong learning opportunities to area residents to improve their workplace skills, enhance their job and career prospects, and enrich their lives as members of the community
- services to support economic development and community vitality
- all of its services with the twin goals of providing the highest quality and maintaining the broadest accessibility

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 and educational opportunities and serve as an important communications link with industry and the community.

CM Education Foundation and Executive 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 \$600,000 to CMCC for scholarships, program improvements and capital projects.

The Foundation Board of Directors also serves as the Executive 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 Executive 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 collaboratively with their academic advisor and the Director of Transfer/Advising 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. A complete listing of transfer agreements may be found on the College web-site at: http://www.cmcc.edu/admissions/transfer_programs.asp

History and Growth of Central Maine Community College

Central Maine Community College (CMCC) 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, Lewiston.

In 1965 the State Board of Education renamed the institution Central Maine Vocational Technical Institute 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 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 transfer 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 more than 2500 students enrolled in Central Maine Community College courses. In addition, an estimated 2,000 area residents participate each year in conferences, courses and programs offered through the Corporate and Community Services Division of the College. The students are served by approximately 150 faculty and staff members. Each

General Information

year approximately 300 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 degree, 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. granted Central Maine Community College initial accredited status (effective 10-8-76). Continued accreditation was voted in 2008. 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 bachelor's degree programs, was authorized.

Several programs have received special recognition for their quality. The Graphic Arts/Printing Technology program first earned national accreditation in 1993 and meets the PrintEd accreditation standards of the Graphic Arts Education and Research Foundation (GAERF), 1899 Preston White Drive, Reston, Virginia 20191-4367, telephone (703) 264-7200. The program was reaccredited in January 2006.

The Technology Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, Maryland 21202-4012, telephone, (410) 347-7700, granted initial accreditation to the Architectural and Civil Engineering Technology Associate Degree program in 1984. The Program was reaccredited in August 2004.

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.

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, 161 Capital Street, Augusta, Maine 04333-0158, telephone (207) 2871133. In addition, the Associate Degree option was granted continuing accreditation in 1996 by the Associate Degree Nursing program was granted initial accreditation by the National League for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York City, NY 10006, telephone (212) 363-5555. The Program was reaccredited in July 2004.

The Machine Tool Technology Program was granted re-accreditation through 2013 by the National Institute for Metalworking Skills (NIMS), 10565 Fairfax Boulevard, Suite 203, Fairfax, VA 22030, telephone (703) 352-4971.

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.

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, Allied Health and Occupational Health and Safety programs; science laboratories; fitness and recreation facilities, including a gymnasium; and the Corporate and Community Services 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, CMCC constructed a new residence hall which opened in the fall of 2007.

A new nursing simulation lab was completed in the fall of 2008, and the Jalbert lecture hall was completely renovated in the spring of 2009.

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, Auburn-Lewiston 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.

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In Oxford County, the College offer courses at the Western Maine University and Community College Center in South Paris. Courses are also offered at other sites in Oxford County.

In Lincoln County, courses are delivered at the CMCC/Lincoln County Healthcare Education Center in Damariscotta. On-site courses are offered at several locations in Franklin County including the Foster Technical Center, Mt. Abram High School, the Adult Learning Center in Farmington, and Franklin Memorial Hospital.

**Western Maine University
and Community College Center**

232 Main Street
South Paris, ME 04281
(207) 743-9322 ext. 204

**CMCC/Lincoln County
Healthcare Education Center**

66 Chapman Street
Damariscotta, ME 04543
(207) 563-4820

College Facilities

In addition to the classrooms, lecture halls, library, gymnasium, dining facilities, shops and laboratories and administrative offices in Jalbert and Kirk Halls, the Lapoint Center and the Culinary Arts Center, Central Maine Community College offers residence halls on campus that provide housing for 260 students. In addition to a lounge, resident students have access to a recreation area furnished with games and a study room with instructional equipment and furniture. Snack machines and laundry equipment are also available for residents. Each room is cable-ready and wired for both telephone and computer.

Non-residents have access to lounges, dining facilities that are open from 7:15 am in the morning until 8:00 pm in the evening during the week and for brunch on weekends, vending machines and recreational areas. The campus also has an athletic field for baseball, softball and soccer games.

Trails through nearby woods offer excellent cross-country running and skiing opportunities, depending on the season. Lake Auburn provides good sailing, boating, and fishing, although swimming is not permitted.

Corporate & Community Services Division

Corporate & Community Services at Central Maine Community College provides a broad range of educational and training services tailored to meet specific business and community training needs. The Division offers seminars, workshops and specialized education and training programs that can be delivered at businesses or other off-campus locations as well as at the College. Corporate and Community Services offers organizations and residents of Androscoggin, Oxford, Franklin and Lincoln counties a broad range of traditional and non-traditional courses, programs and workshops to prepare them for the workplace of the future through customized training.

As a member of the National Coalition of Advanced Technology Centers, the Division offers a commitment of people and resources in an effort to reach, enhance and add value to business. We bring together the resources of the College in order to meet the training needs of area employers. Corporate Training Coordinators also aid employers with locating potential sources of public support for customized training.

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. Graduation from an approved high school or passing scores on the General Educational Development (GED) Examination 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.

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 Admissions Office for more details.

*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 January 31st**, and selection decisions are made beginning in February and ongoing until the program is full.*

*Note to Radiologic Technology Applicants: Students for this program are selected on a competitive basis once per year, to begin each fall semester. Application materials must be received by Central Maine Community College and The Clark F. Miller School of Radiologic Technology at Central Maine Medical Center by **December 31st**.*

Admissions Process

All applications will be evaluated for admission as soon as possible 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.

3. If applicable, 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 Admissions Office to discuss alternatives and may start in General Studies.

5. For Nursing Program applicants only: results of the Nurse Entrance Test (NET) must be submitted to the Admissions Office by the January 31 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.

or
Central Maine Community College Accuplacer Placement Assessment in reading, writing, math and algebra or English as a Second Language (ESL). Please call the Admissions Office to schedule an assessment session.

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
SAT results, Placement Assessment, and college level course work are used for academic counseling and course placement. Results are analyzed and applicants may be advised to enroll in preparatory courses or receive assistance at an adult education center in the region.

Testing Services

Applicants who do not have SAT scores of 480 or better or have not completed college level course work in English and Mathematics with a grade of C or better are required to complete placement tests in reading, writing, math, and basic algebra.

Central Maine Community College evaluates basic academic skills using the College Board's Accuplacer® computer based test series. The tests evaluate basic skills in reading, writing,

Central Maine Community College uses the following guidelines for academic advisement and placement:

Test	Score	Placement Recommendation
Reading	40th percentile or better	Standard college courses
Reading	39th through 27th percentile	ENG 050 Intro to Academic Reading
Reading	26th through 11th percentile	ENG 030 Reading Workshop
Reading	10th percentile or less	Basic Reading/Literacy - Adult Education
Writing	A score of 7 or better	ENG 101
Writing	A score of 6 or less	ENG 021
LOEP	Combined score of 196-279	Level 1 ESL
LOEP	Combined score of 280-326	Level II ESL
Mathematics	4th percentile or less	Basic Mathematics - Adult Education

Placement guidelines for Mathematics courses are located on page 126 in the Course Descriptions section of this catalog.

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mathematics, and elementary algebra, using a series of standardized examination questions. Test results are reported using percentile scores. Course level placement and scores from the various tests are used to assess a student's basic academic skills and assist with academic advising and placement in appropriate courses or services.

Admissions Prerequisites

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

Accounting - *Algebra I*

Applied Technical Studies - *significant occupational training and experience*

Architectural & Civil Engineering Technology - *grade C or better in Algebra I & II, Geometry, Physics, basic computer skills*

Automotive (Ford ASSET) - *Algebra I*

Building Construction Technology - *Algebra I and Geometry*

Computer Technology - *Algebra I, basic computer software skills*

Early Childhood Education - *basic computer skills*

Electromechanical Technology - *Algebra I, (Algebra II preferred)*

Graphic Arts/Printing Technology - *basic computer skills*

Human Services - *Algebra I*

Liberal Studies - *Algebra I, Algebra II*

Machine Tool Technology - *Algebra I*

Medical Assistant - *Biology with laboratory*

Nursing - *Algebra I, Chemistry with laboratory, Biology with laboratory, completed application process and results of the Nurse Entrance Test (NET) by January 31st each year for competitive review process*

Occupational Health and Safety - *(Certificate) current occupational experience or post-secondary degree or equivalent*

Radiologic Technology - *Acceptance to Central Maine Medical Center (CMMC) School of Radiology, "C" or better in Algebra I and another college preparatory math, "C" or better in college preparatory Biology with laboratory and*

Chemistry with laboratory. Submit a completed application and required testing by December 31st each year to both CMMC and Central Maine Community College for competitive review process.

Trade and Technical Occupations - *Algebra I, current Registered Apprenticeship or journeyman status*

Tour and Campus Interviews

All applicants are strongly encouraged to contact the Admissions Office 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 Director of Finance 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 at 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 Director of Finance's 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 Director of Finance 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 Director of Finance's 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 need to submit official college transcripts from all colleges attended for both placement and transfer credit purposes before they will be admitted.

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 college. Additional testing may be necessary. Students without a TOEFL score may arrange to take CMCC's ESL Accuplacer Placement Assessment. In countries where English is a primary language, students

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may provide evidence of substantial program coursework in English.

International students must provide:

- Application for Admission
- Admission Fee.
- Financial Certification (original) indicating sufficient funds to meet educational and living expenses for a minimum of program length.
- Copy of valid Passport.
- TOEFL score or CMCC ESL 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.

Conditional Acceptance - Applicant has completed the admissions process and is admitted with an academic condition(s), which must be successfully completed prior to or during the first semester(s) to maintain accepted status.

Deferred* - Applicant has met the requirements within the admissions process and has requested a deferred acceptance to another 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:

- A confirmation card, confirming acceptance, along with a \$75.00 nonrefundable tuition deposit that will be credited to the first semester bill. The tuition deposit may be submitted online at www.cmcc.edu/admissions/tuition_deposit/.
- A Central Maine Community College Health and Immunization Form, documenting emergency information and two doses of measles, mumps, and rubella immuniza-

tions for any students born after 1956, plus a tetanus immunization within 10 years for all students. Students accepted into allied health programs will be required to provide additional health data. Maine State law requires Central Maine Community College to collect this immunization information.

- 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 residence hall & meal plan deposit that will be credited toward the first semester bill. Space is assigned on a first deposit, first assigned basis, with preference given to first year, full-time students. The deposit may be submitted online at www.cmcc.edu/admissions/tuition_deposit/.

After Acceptance to the College

New students will be signed up for a Registration Day to learn important policies, meet advisors, aid, and get their college photo ID. Registration Day info is mailed to new students after they submit the \$75.00 tuition deposit. Students are expected to be at the college for their assigned Registration Day.

Financial Aid award packages will be processed and communicated to students by the Central Maine Community College Financial Aid Office upon a student's acceptance to the college. Processing can take 4-6 weeks from the time the student has been accepted. For students beginning in the fall semester, awards will be processed beginning in the late 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 Admissions Office 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 Devel-

opment (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 48 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 Central Maine Community College Admissions Office and/or their high school guidance counselors for complete details.

BATH REGIONAL VOCATIONAL CENTER
Automotive Technology, Business Administration and Management, Culinary Arts, Building Trades

BIDDEFORD REG. CENTER OF TECH.
Automotive Technology

BONNY EAGLE HIGH SCHOOL
Automotive Technology

CAPITAL AREA TECH. CENTER, AUGUSTA
Automotive Technology, Computer Technology, Culinary Arts, Graphic Arts/Printing Technology, Machine Tool Technology, Building Trades

CARIBOU REG. TECHNOLOGY CENTER
Automotive Technology, Building Trades

KENNETH FOSTER APPLIED TECHNOLOGY CENTER, FARMINGTON
Automotive Technology, Business Administration and Management, Computer Technology, Building Trades, Graphic Arts

HANCOCK COUNTY TECHNICAL CENTER, ELLSWORTH
Automotive Technology, Culinary Arts, Building Trades

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

Admissions

LEWISTON REGIONAL TECH. CENTER

Automotive Technology, Business Administration and Management, Computer Technology, Culinary Arts, Early Childhood Education, Machine Tool Technology, Building Trades, Speech

MAINE VOCATIONAL REGION #10, BRUNSWICK

Automotive Technology, Building Trades, Culinary Arts, Early Childhood Education, Building Trades

MID COAST SCHOOL OF TECHNOLOGY, MVR #8, ROCKLAND

Automotive Technology, Computer Technology, Culinary Arts

NORTHERN PENOBSCOT TECH. CENTER

Automotive Technology, Culinary Arts, Building Trades

OXFORD HILLS TECHNICAL SCHOOL

Automotive Technology, Business Administration and Management, Computer Technology, Culinary Arts, Building Trades, Graphics

PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL, PORTLAND

Automotive Technology, Culinary Arts, Electro-mechanical Technology, Building Trades

PRESQUE ISLE REGIONAL TECH. CENTER

Building Trades, Computer Technology, Business Administration and Management

SANFORD REGIONAL VOC. CENTER

Automotive Technology, Machine Tool Technology, Computer Technology, Building Trades, Graphic Arts

SCHOOL OF APPLIED TECHNOLOGY, REGION 9, RUMFORD

Computer Technology, Machine Tool Technology, Building Trades

SKOWHEGAN REGIONAL VOC. CENTER

Automotive Technology, Building Trades, Computer Technology

ST. JOHN VALLEY TECHNOLOGY CENTER

Automotive Technology, Building Trades

ST. CROIX REGIONAL TECHNICAL CENTER

Automotive Technology, Building Trades

TRI-COUNTY TECH. CENTER, DEXTER

Automotive Technology, Culinary Arts, Building Trades, Machine Tool

UNITED TECH. CENTER, MVR #4, BANGOR

Automotive Technology, Building Trades, Culinary Arts

WALDO COUNTY TECHNICAL CENTER

Automotive Technology, Culinary Arts, Building Trades

WESTBROOK REGIONAL VOC. CENTER

Automotive Technology, Early Childhood Education, Building Trades

Out-of-State

ASSABET VALLEY REGIONAL VOCATIONAL SCHOOL, MARLBORO, MA

Automotive Technology, Culinary Arts, Building Trades, Machine Tool Technology, Graphics

BAY PATH REGIONAL VOCATIONAL HIGH SCHOOL, CHARLTON, MA

Automotive Technology, Machine Tool Technology, Building Trades, Culinary Arts

BLUE HILLS TECHNICAL HIGH SCHOOL, CANTON, MA

Automotive Technology, Building Trades, Culinary Arts, Graphic Arts

C.H. McCANN TECHNICAL HIGH SCHOOL, NORTH ADAMS, MA

Automotive Technology, Culinary Arts, Building Trades, Machine Tool Technology

GREATER LAWRENCE TECHNICAL CENTER, LAWRENCE, MA

Automotive Technology, Culinary Arts, Building Trades, Machine Tool Technology

LOWELL HIGH SCHOOL, LOWELL, MA

Computer Technology, Culinary Arts

NORTH SHORE TECHNICAL CENTER, MIDDLETON, MA

Automotive Technology, Culinary Arts, Building Trades, Machine Tool Technology

NASHOBA VALLEY TECHNICAL CENTER, WESTFORD, MA

Automotive Technology, Culinary Arts, Building Trades, Machine Tool Technology, Graphics

PATHFINDER REGIONAL VOCATIONAL/ TECHNICAL HIGH SCHOOL, PLAMER, MA

Automotive Technology, Culinary Arts, Building Trades

RINDGE SCHOOL OF TECHNOLOGY ARTS, CAMBRIDGE, MA

Automotive Technology, Building Trades, Culinary Arts, Graphics

SHAWSHEEN VALLEY TECHNICAL CENTER, BILLERICA, MA

Automotive Technology, Culinary Arts, Building Trades, Machine Tool Technology, Graphics

SMITH VOCATIONAL/AGRICULTURAL HIGH SCHOOL, NORTHHAMPTON, MA

Graphics

SOUTHEASTERN REGIONAL VOC. TECH. HIGH SCHOOL, SOUTH EASTON, MA

Automotive Technology, Building Trades, Culinary Arts, Graphic Arts, Machine Tool Technology

SOUTH SHORE VOCATIONAL TECHNICAL HIGH SCHOOL, HANOVER, MA

Automotive Technology, Building Trades, Culinary Arts, Graphic Arts, Machine Tool Technology

WALTHAM HIGH SCHOOL, WALTHAM, MA

Automotive Technology, Building Trades, Graphics

WEYMOUTH HIGH SCHOOL, WEYMOUTH, MA

Automotive Technology, Building Trades, Computer Technology, Culinary Arts, Graphic Arts

WHITTIER REGIONAL VOCATIONAL HIGH SCHOOL, HAVERHILL, MA

Automotive Technology, Business Administration/Management, Computer Technology, Machine Tool Technology, Graphics

WORCESTER TECHNICAL HIGH SCHOOL, WORCESTER, MA

Automotive Technology, Building Trades, Computer Technology, Culinary Arts, Graphic Arts, Machine Tool Technology

BERLIN HIGH SCHOOL, BERLIN NH

Automotive Technology, Culinary Arts, Building Trades, Machine Tool

HUOT TECHNICAL CENTER, LACONIA, NH

Automotive Technology, Culinary Arts, Building Trades

MASCENIC REGIONAL HIGH SCHOOL, NEW IPSWICH, NH

Automotive Technology

MANCHESTER SCHOOL OF TECHNOLOGY, MANCHESTER, NH

Automotive Technology

MOUNT WASHINGTON VALLEY CAREER TECHNICAL CENTER, NORTH CONWAY, NH

Automotive Technology, Building Trades, Machine Tool Technology

R.W. CRETEAU TECHNICAL CENTER, ROCHESTER, NH

Graphic Arts, Machine Tool Technology

SOMERSWORTH REGIONAL VOCATIONAL CENTER, SOMERSWORTH, NH

Automotive Technology

GREEN MOUNTAIN TECHNICAL CAREER CENTER, HYDE PARK, VT

Automotive Technology, Building Trades, Culinary Arts

NORTHWEST TECHNICAL CENTER, ST. ALBANS, VT

Automotive Technology, Building Trades, Culinary Arts

Tuition and Fees

Estimated Costs, 2009-2010 ***(Subject to change without notice)***

The following table summarizes estimated expenses for Central Maine Community College students during the 2008-2009 academic year. Because charges are subject to change, applicants are advised to inquire about charges beyond the 2010-2011 academic year.

Application Fee (non refundable)	\$20.00
Tuition:	
Maine Residents	\$84.00 per credit hour
New England RSP Participants	\$126.00 per credit hour
Non-Resident	\$168.00 per credit hour
Room & Board:	
All Programs (except Ford ASSET)	\$7,765 - \$8,505 full academic yr.
Other Fees:	
Comprehensive Fee	\$8.40 per credit hour
Student Services Fee	\$8.00 per credit hour
Accident Insurance	\$25.00 per year
(Required of students carrying 12 or more credit hours)	
Technical Course Fees	\$16.80 per credit hour
Non-technical Course Fees	\$8.40 per credit hour
Culinary Arts Fee	\$50.00 per semester
Key and Damage Deposit	\$200.00
(Required for Resident Students)	
Residential/Communications Fee	\$185.00 per semester
(Required for Resident Students)	
*Tool Box Rental	\$50.00/semester
*Tool Deposit	\$100.00
*(Required of Machine Tool, Automotive and Parts & Services Management majors)	
Liability Insurance	\$15.00
(Required for ECE, CLS, HUS, MEA and NUR majors)	
Health and Accident Insurance	\$220.00
(Extended Coverage) - Optional	
Testing Fee (Required for NUR Majors)	\$60.00/semester

Tools, uniforms, etc. ~ Some programs require tools and/or uniforms.

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 Mustang Bookstore 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 (207) 755-5328.

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

Tuition for coursework is eighty-four dollars (\$84.00) 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 five hundred and twenty dollars (\$2,520) for tuition. However, student course loads and required credit hours vary with each program.

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 2009-2010, the amount is \$126.00 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 \$8.40 per credit provides for up to 10 transcripts, graduation registration, security orientation, etc.

Student Services Fee

A student services fee of \$8.00 per credit covers student activities and parking.

Course Fees

Course fees are charged on a credit basis. Technical courses at \$16.80 per credit and non-technical courses at \$8.40 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

Tuition and Fees

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

Recording Fee for Portfolio Assessment and/or Challenge Examinations

The evaluation of learning acquired outside a sponsored collegiate setting thru portfolio assessment, standardized examinations (e.g., CLEP, etc.) or Central Maine Community College course challenge examinations are sometimes utilized in the administration of Central Maine Community College Associate Degree programs.

Central Maine Community College administered portfolio assessment and/or course challenge examinations usually take significant amounts of administrative time and paperwork. The Recording Fee for prior learning evaluation (e.g. portfolio assessments or course challenge examinations, etc.) is equal to one credit hour tuition charge (\$84.00)

The Recording Fee is non-refundable. However, a refund of pre-paid tuition will be authorized if a course is successfully challenged within the Add/Drop schedule.

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 December 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 which the fee is \$35.00 and \$50.00 if the account is delinquent.

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 part-time 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.

Refund Policy - Matriculated Students

The Board of Trustees of the Maine Community College System has established the following schedule as policy (No. 402) for refunding tuition and room and board payments to full and part-time matriculated students who withdraw from the College 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 and Room and Board Refunds*

Official withdrawal from College within 10 class days of semester:	80% refund
Official withdrawal from College within 11-20 class days:	50% refund
Official withdrawal from College after 20 class days:	NO refund
Course canceled by College:	100% refund

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.

**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

Non-matriculated students who officially withdraw (drop) from a course within the first ten class days of the semester or term will be entitled to a full refund of tuition and course fees. 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.

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 finance their education. A basic principle of financial aid-programs is that the student and his/her family are expected to contribute, when able, from income and assets to meet college costs. However, approximately two thirds of our students receive financial assistance to help them meet these costs in the form of grants, scholarships, loans and work opportunities. The Office of Financial Aid exists to advise and assist students. Counselors are available to help with financial aid problems. Students are encouraged to make use of the office whether or not they are receiving direct financial aid assistance. If funds are not available from Central Maine Community College, the Office of Financial Aid helps students explore other potential sources of aid.

Eligibility

While students and their parents share the primary responsibility for financing a post-secondary education, a number of federal, state and institutional financial aid programs are available to supplement the family contribution where need exists. Within the limits of its resources, Central Maine Community College awards financial assistance to students with need in the form of federal grants, state, institutional, and privately funded scholarships, federal work-study and loans. To receive financial assistance, a student must be admitted to the College and, in most instances, must be enrolled for at least six credit hours. The majority of financial assistance provided by the college is awarded on the basis of financial need. Students apply for financial aid by submitting a Free Application for Federal Student Aid (FAFSA) electronically through the web site at www.fafsa.ed.gov.

Students will be offered financial aid subject to the availability of funds. Review of student aid applications begins in early spring. THE IMPORTANCE OF FILING THE FAFSA EARLY CANNOT BE OVER EMPHASIZED. THE FAFSA SERVES AS THE BASIS FOR ALL FINANCIAL AID DECISIONS MADE AT THE COLLEGE.

PRIORITY DEADLINE:

May 1st

CMCC FINANCIAL AID APPLICATION DEADLINE:

August 1st*

CMCC School Code: 005276

*Students who do not meet this deadline may be required to arrange a payment plan with the Business Office.

Satisfactory Academic Progress (SAP)

In order to receive financial aid under Title IV of the Higher Education Act as amended, a student must maintain satisfactory academic progress (SAP) in her or his course of study according to the standards and practices of the College described below. Student academic records will be reviewed at the end of each semester to determine that each student is making satisfactory academic progress. Two measures will be used, each bearing equal weight in determining the student's status.

Qualitative Measure

This is a measure of the student's grade point average and it is reviewed at the conclusion of each semester. The qualitative measure is not affected by full or part-time enrollment status. **See Academic Policies on page 22-24 of this catalog.**

Financial Aid Probation

See Table 3 - Academic Standards on page 25.

Financial Aid Suspension

See Table 3 - Academic Standards on page 25.

Quantitative Measure

The maximum time for matriculated students to complete a program and receive financial aid must be no more than 150% of the length of their academic program. Students who continually withdraw from classes after the drop period may be negatively impacted by this measure.

In order to meet this measure, the student should successfully complete 66% of the "Attempted Credits" in each semester. For example, if you attempt 15 credits in the Fall semester and receive aid, you should pass 10 of the 15 credits.

Certificate (15-45 credit hrs.)
3 semesters

Associate Degree (15-90 credit hrs.)
6 semesters

Students who continually withdraw from classes after the drop period may be negatively impacted by this measure. If a student plans to drop a class, to avoid a penalty, they should do so during the drop period as published in the academic calendar.

Students will be evaluated at the end of each semester to determine if they are making satisfactory academic progress (SAP). SAP will be applied to all students, regardless of full-time or part-time status. A credit is defined as attempted when it is on the student's enrollment schedule at the end of the official Add/Drop period.

Transfer credits, advanced placement credits and credit by examination will be included in the cumulative quantitative total calculations when the credits are officially transferred to fulfill the College's requirements. These credits do not carry quality points and are not included in the qualitative analysis of SAP. An "incomplete" grade will be monitored by the SAP process once a letter grade has been established. Remedial work in developmental courses may qualify for financial aid if the courses are measured in credit hours and required as part of the student's planned program.

Appeals

Appeals for reinstatement of financial aid eligibility lost by students not meeting satisfactory academic progress requirements may be made by students. Appeals must be received in writing to the Director of Financial Aid, within ten working days of the date of written notification to the student.

Mitigating circumstances which a student believes to have affected his or her ability to maintain satisfactory academic progress should be documented as part of the student's appeal. The following mitigating circumstances that will be considered will include, but are not limited to:

- Illness or injury to the student or a close relative
- Death of a relative or associate
- Family emergency

Please provide documentation for the circumstances that you state.

NOTE: If a student withdraws from the College in an academic term during which they are in-

Financial Aid

eligible for financial aid due to not maintaining satisfactory academic progress, they remain ineligible for financial aid until such time that he or she once again makes satisfactory academic progress. In other words, you may not re-enter the College with new financial aid eligibility if at the time you withdrew you were not meeting satisfactory academic progress requirements.

Types of Aid Available

Academic Competitiveness Grant (ACG)

A new student aid grant program that builds on the Pell Grant program to provide increased funds for students who complete a rigorous high school program of study. Awards are \$750 for first year students who qualify and \$1,300 for second year students who qualify and have a GPA of 3.0 or better.

Federal Pell Grants

The Federal Pell Grant program is designed to provide financial assistance to high need students attending post secondary educational institutions. Federal Pell Grants do not have to be repaid. Annual awards range from \$400 to \$4,800, as determined by the cost of education, need and credit hours enrolled.

Federal Supplemental Education Opportunity Grants (SEOG)

This is a federally funded program to assist needy students. SEOG grants do not have to be repaid. Grants vary between \$200 and \$500 per academic year.

Federal Work-Study Program (FWS)

Federal work study is an award given to students based on financial need as determined by the FAFSA. Students may indicate they are interested in federal work study on their FAFSA. If awarded, the student is responsible to find a position listed on our website that interests them and to contact the supervisor listed. These are part-time positions with the expectation that students work no more than 20 hours per week. There are on-campus positions listed and off-campus positions listed at local community sites. Most positions pay minimum wage. This award is not applied to your bill; students will receive a paycheck from the Business Office every two weeks.

Maine State Grant Program

The Maine State Grant Program is designed to provide financial assistance to undergraduate Maine students. Eligible students will receive up to \$1,100 for the 2009-2010 academic year. All Maine students should apply annually by submitting the Free Application for Federal Student Aid (FAFSA) prior to the May 1 deadline.

CM Foundation Scholarships

Central Maine Community College is able to offer scholarships and emergency loans made possible through the fund raising efforts of the community-based CM Foundation, a private, non-profit corporation organized for the purpose of supporting Central Maine Community College programs and students. Foundation scholarships and emergency loans are available to Central Maine Community College students through the College's Financial Aid Office.

Bernard Osher Foundation Scholarships

Scholarship awards ranging from \$500 to \$1,000 for eligible students enrolled in the General Studies Associate in Arts degree program.

The Osher Scholarship for Associate in Arts Students

Scholarship awards for students who have been out of high school or college for at least one year and are enrolled in the Associate in Arts program.

CMCC Scholarships

The Board of Trustees of the Maine Community College System allocates scholarship funds from biennial legislative appropriations to each Community College. During the 2008-2009 academic year, eligible students will receive awards in amounts ranging from \$200 to \$500.

Native American Program

Central Maine Community College will waive tuition for qualified Native Americans residing in Maine. 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.

Children of Law Enforcement Officials and Fire Fighters Killed in the Line of Duty

Central Maine Community College will waive tuition, fees and room and board charges for qualifying students.

Canada Student Loan Program

Central Maine Community College has been approved for designation as a specified institution under the Canada Student Loans Program.

Veteran's Administration Assistance Program

Central Maine Community College is an approved institution for the training of veterans and their dependents. Under the various veterans educational assistance acts (more commonly known as the GI Bill), eligible individuals qualify for financial assistance according to their form of military service. Anyone requesting veterans educational assistance is required to have all previous post-secondary educational experience evaluated for possible transfer credit in order to be eligible for benefits. To receive additional information, a prospective student should contact the Veterans Administration Center, Togus, Maine 04330, (1-800-827-1000) or the Veterans Certification Officer at Central Maine Community College (207-755-5328) or call 1888-442-4551 (1-888-GIBILL-1) or visit their web site at www.GIBILL.VA.GOV.

Veteran's Dependents and Survivors

Education benefits for up to 45 months may be paid to a student whose parent was permanently disabled or died from service connected disabilities. These benefits are also extended to the wives, widows or widowers of such veterans. Similar allowances are granted to dependents of veterans with non-service connected disabilities. For additional information, students should contact the Veterans Administration Center, Togus, Maine 04330 (1-800-827-1000).

Financial Aid

Federal Family Education Loan (FFEL) Programs

Federal Stafford Loan Program

Through a loan, students are in effect, investing their future earnings in their education. Loan eligibility is determined when the student files the FAFSA and is initially reviewed for financial aid by the College's Financial Aid Office. The U.S. Government will pay the interest during a student's enrollment and deferment periods. Repayment of the principal and interest begins six months after the student graduates. Students may borrow up to a maximum of \$3,500 in their first year of study and up to \$4,500 in their second year. An Unsubsidized Federal Stafford Loan is available with the same terms and conditions as Stafford Loans, except that the borrower is responsible for interest that accrues while he/she is in school.

Federal Parent Loans (PLUS)

This program allows parent(s) to secure relatively low-cost loans. Contact the Financial Aid office for assistance.

Title IV Funds

Title IV Financial Aid Refund Procedures

Students who receive Title IV funding are subject to mandated federal refund procedures upon withdrawal from the College. A portion of Title IV grant or loan funds (not including Federal Work Study Program) must be returned to the Title IV programs for a student who officially withdraws before the 60 percent point in the payment period or period of enrollment. Up through the 60 percent point in time, the percentage of Title IV aid earned is equal to the percentage of the period of enrollment for which it was awarded and that was completed as of the day the student withdrew. If the student withdrawal occurs after the 60 percent point in the period of enrollment, then they have earned 100 percent of their Title IV aid assistance. The date the student withdraws (as determined by

the school), is the date that the student returns a completed withdrawal form to the Registrar's office or otherwise provides official notification to the institution of his or her intent to withdraw. If the student does not notify the institution of the intent to withdraw, then the official withdrawal date will be considered to be the midpoint of the enrollment period.

Offers of financial aid are conditional upon receipt of funds from all funding sources. The Financial Aid Director reserves the right to revise offers of financial aid at any time during the year based on availability of funds and/or changes in regulation or procedures mandated by the College, State, or Federal authorities.

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, copies of which are available in the Student Services office and online at www.cmcc.edu. Students are encouraged to become familiar with the Handbook and with other publications issued periodically, and to stay abreast of any changes in policy.

Course Registration

The official registration process for catalog programs and courses is conducted by the Registrar's Office in cooperation with Department Chairpersons, the Division of Academic Affairs, the Division of Student Services and the Business Office. It includes selection of courses, completion of proper forms, and payment of College charges. The Division of Student Services provides newly admitted (matriculated) students with registration details.

The Division of Academic Affairs, with the assistance of Department Chairpersons and advisors from the Learning Resource Center, coordinates academic advising and initiates the registration procedure by approving course schedules prior to processing by the Registrar and the Business Office. Matriculated students may register near the end of each semester for the following semester.

New and returning matriculated students must obtain advisor approval prior to registration. Non-matriculating students pursuing credit courses must meet published prerequisites prior to registration and may register only during the open registration period through the Registrar's Office. A student may not register for more than eighteen (18) credits in one semester without the permission of the Academic Advisor and the Dean of Academic Affairs. A student registration is not complete unless all related financial obligations to the College are satisfied.

Bookstore

The bookstore sells required textbooks, course tools and supplies, and novelty items. The bookstore, 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. After two weeks, books are considered used. For more information, see the bookstore web page at www.cmcc.edu/BookStore/

Housing

Four residence halls provide on-campus accommodations for Central Maine Community College students. Our newest building, opened in the fall of 2007, 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, with preference given to first-year students, and selected second-year students on a space-available basis.

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 hall 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 hall is open seven days a week.

Student Health Services

A clinic, staffed by qualified health care professionals, is located off campus and is available to students. In addition to diagnosing and treating minor medical problems, the clinic provides counseling to students on health related matters. A resident student requiring healthcare

services must set up an appointment through the Dean of Student Services Office.

When the clinic is not open, students have access to medical care through either of the two excellent hospitals located in Lewiston, minutes away from Central Maine Community College.

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 (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 Director 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 major. 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. With support from the Dean

Student Services

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 e-mail to students who have an e-mail address on record. The College provides full-time students with free memberships to the YMCA and students may participate regularly in the activities of that facility.

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 that have been available from year to year for students include an Outing Club; Lakeside Players (Central Maine Community College's own Drama Club); Women in Technology; American Society of Safety Engineers; Intramural activities; Video Gaming Club; and Mixed Nuts - a publication of creative works by and for students.

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 are enrolled in an associate degree program, 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. We offer women's softball and basketball, men's baseball, basketball and soccer as well as men's and women's volleyball and co-ed golf. 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. We offer open gym whenever the teams are not in

season. Students must meet athletic and academic eligibility requirements to participate in intercollegiate sports.

Motor Vehicles

Students wishing to use a motor vehicle on campus must register the vehicle with the college receptionist and obtain a parking decal. (There is no charge to students.) 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: www.cmcc.edu/student_resources.

Student Counseling

Student counseling is available during the week by seeing the Dean of Students. 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 Student Services personnel offer academic advising. The Dean of Academic Affairs is also available to assist students with academic issues.

Career Planning, Counseling and Placement Services

Career counseling in areas of career exploration, career planning, and choice of major is provided. A variety of assessment instruments are offered along with computerized career guidance software to provide additional career exploration assistance. Placement Services are provided for students through consultation with program chairpersons. CMCC staff works closely with business and industry to develop opportunities for positions throughout the state. Assistance in developing a resume, cover letter and preparing for a job interview can be accessed through Student Services in Jalbert Hall.

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 www.cmcc.edu and the College job board.

Gender Equity Coordination

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 student-run Women in Technology club, organizes the Central Maine Coalition for Women in Trades and Technology 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 or Certificate), students may change their goal from one award to another through the Add/Drop 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

Student Services

and other non-academic information. If a student wishes to withhold this information, he/she may indicate so by checking the directory exclusion box on the Central Maine Community College application form or 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 Association of Schools and Colleges, Inc. Because of this accreditation, most academic credits will transfer to other colleges and universities. Liberal Arts (general education) courses usually 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 "Request for Official Academic Transcript", also available at <https://www.cmcc.edu/registrar/documents/transcriptrequest.pdf>.

For further assistance in transferring from Central Maine Community College, contact the Center for Retention and Transfer at (207) 755-7286.

Students Called to Military Service

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

In the event that 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.

Non-Academic Conflict Resolution/Grievance Procedures

Whenever a non-academic question or difference arises between a CMCC employee and a student, the following procedure shall apply:

1. Depending on the nature of the grievance, the student may discuss the issue with the CMCC employee, or
2. May discuss the matter, confidentially, with the employee's supervisor, seeking resolution.
3. If the issue is still unresolved, the matter may be referred to the Dean of Student Services for a final decision.

Academic Policies and Procedures

General

Academic Amnesty

Students who have had a break in enrollment from the College for at least two calendar years may, upon application for admission, file a written petition for academic amnesty. The Dean of Academic Affairs in consultation with the Department Chair, to which application is being made, will make the final determination. When students are granted academic amnesty, all grades from Central Maine Community College credit course work completed at an earlier date are eliminated from computation of the grade point average and will not be applied to a Certificate or Degree program at Central Maine Community College. Previous credit coursework at Central Maine Community College will not be removed from the student's scholastic records and transcripts. However, these records will clearly indicate that academic amnesty has been granted and the date that amnesty was approved.

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 Certificate or Degree and an auditor may not change his/her status after the second class meeting. Auditors must attend class regularly, participate in class discussion, 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 complete and submit an audit form by the end of the add/drop 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: using unauthorized aids; copying another person's work on exams, quizzes, or assignments; or taking language, information or ideas from another person or source without attributing the appropriate ref-

erence. 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 consultation with other College officials takes place, or refer the incident to the College Discipline Officer for review and action.

Attendance Policy

Students are expected to attend all classes and arrive to class on time. If an absence is necessary due to an illness or emergency, the student is responsible for notifying the instructor prior to class and arranging for any missed assignments. The instructor can file a recommendation to the Department Chair for student dismissal from a course attributed to excessive absenteeism. In addition, excessive absenteeism from all courses may result in student dismissal from a program of study. Athletes must notify their instructors one week prior to any absence due to their scheduled practice or competition and are responsible for all course work. Absences are excused for participating in varsity athletic contests only. The instructor will make reasonable efforts to establish an acceptable make up time period for assignments and examinations. If no reasonable alternative for make-ups is possible, academic standing should have priority over athletic participation. Sponsored students (VA, TRA, etc.) will be responsible for getting course attendance verification from instructors. Upon registration, each student's name is placed on the official class roster. The student's name remains on the list, and he/she assumes financial obligation for the course, unless the course is officially "dropped" in accordance with the "Add/Drop" procedure.

Add/Drop Procedures

For Degree, and Certificate Students

To Add a Course:

1. Discuss your plans with your Academic Advisor, complete the Add form and obtain appropriate approval signatures on the form;
2. Submit the completed and dated Add form to the Registrar's Office during the Add/Drop period.

To Drop a Course:

1. Discuss your plans with your Academic Advisor, complete the Drop form and ob-

tain appropriate approval signatures on the form;

2. Submit the completed and dated Drop form to the Registrar's Office during the Add/Drop period.

For Non matriculated Students (Not Enrolled in a Catalog Program)

To Add a Course:

1. Discuss your plans with a Counselor in Student Services or the Academic Affairs Office, complete the Add form, and obtain appropriate approval signatures on the form.
2. Submit the completed and dated Add form to the Registrar's Office during the Add/Drop period.

To Drop a Course:

1. Discuss your plans with your Academic Advisor, complete the Drop form and obtain appropriate approval signatures on the form.
2. Submit the completed and dated Drop form to the Registrar's Office during the Add/Drop period.

Add/Drop Policies for Catalog Courses

Students should submit an add/drop form or withdrawal form to the Registrar's Office. Central Maine Community College reserves the right, without notice, to extend the Add/Drop period of 10 class days because of weather related cancellations or other extraordinary circumstances. Student Add/Drop requests for courses scheduled to meet for less than a full academic semester will be considered on an individual, case by case basis by the Registrar.

Adding a Course: Courses may be added only during the first 10 class days of the fall and spring semesters and during the first 5 days of a summer session. A student whose name is not included in the instructor's official class list after the Add/Drop period should immediately consult the Registrar's Office to inquire as to the reason for the omission and remedy.

Dropping a Course: Courses may be dropped during the first 10 class days of the fall and spring semesters and during the first 5 days of a summer session. Tuition is fully refunded during these times. After 10 days, no refund. Properly completed Add/Drop forms are received by the

Academic Policies and Procedures

Registrar's Office shall be date stamped and considered official. Students who do not officially drop courses before the end of the Add/Drop period assume all financial obligations for tuition and fees. Matriculated students who drop from all classes are subject to the Maine Community College System (MCCS) Board of Trustees refund policy—see page 10 for details.

Course Withdrawal: After the first 10 class days and up to mid-semester: a student may withdraw from class. A "W" will appear on the transcript and will not be factored into the GPA. 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. Matriculated students who withdraw from all classes are subject to the Maine Community College System (MCCS) Board of Trustees refund policy—see page 10 for details.

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.

Withdrawal from the College

A student must officially withdraw from the College by completing a form from the Registrar's Office. During the first ten (10) days of a semester (5 days during the summer session), no grades will be recorded on the transcript. Students who do not officially withdraw from the College will receive grades of "F." Students receiving financial aid may be subject to Federal fund obligations or conditions and should contact the Financial Aid Office prior to withdrawal. Matriculated students who drop/withdraw from all classes are subject to the Maine Community College System (MCCS) Board of Trustees refund policy - see page 10 for details. Withdrawal forms are available from the Registrar's Office. 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 completed "Change of Major" form with the Registrar's Office. The student's Academic Advisor,

the Department Chairperson of the program the student is leaving, and the Department Chairperson of the program in which the student wants to enroll, should all sign and date the form. Forms are available from the Registrar's Office.

Course Enrollment

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.

Course work at other Institutions

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 regionally 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 of the credit options that CMCC has available to them. It is possible to earn credit through CLEP examinations, Portfolio Assessment (PA), CMCC course challenge examinations, credit for college level learning gained through paid or unpaid employment and/or internship or independent study, on a limited basis. For further details regarding prior learning options, students should contact their Academic Advisor or the Academic Affairs Office.

Students who seek credit for prior learning must be formally admitted (matriculated) into a Central Maine Community College program in order to earn credit through these options. In addition, students who are admitted to the College must earn a minimum of 25% of their program course requirements from CMCC. 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.

Articulation Agreements with High Schools

Central Maine Community College has established articulation agreements with several Maine high schools and vocational/ technical centers, for the purpose of awarding academic credit for prior learning, which is equivalent to select Central Maine Community College course work. Additional details are found in the Tech Prep section of this catalog.

DANTES (Defense Activity for Non-Traditional Education Support)

The DANTES College Credit Examination Program is a testing service conducted by the Educational Testing Service (ETS) and is available to all qualified students. The DANTES Subject Standardized Tests offer a wide range of introductory college-level, vocational/technical, and business subjects. For test scores to be considered for credit, students should have official DANTES test results sent directly to the Registrar's Office at Central Maine Community College. <http://www.dantes.dodeded.com>

Credit by Examination 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 in a calendar year and may not be taken for courses in which a CLEP examination exists. 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 available through the Registrar's Office but are encouraged to consult their Academic Advisor first. The fee for the exam is equal to the cost of one credit hour and, if applicable, the cost of laboratory supplies and materials. Payment to the Business Office is required prior to taking the exam. Challenge exams will be administered during the drop/add period of a semester, unless otherwise approved by the Department Chair.

Academic Policies and Procedures

CLEP Examination

(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 various times throughout the year at colleges and university locations conveniently located in Maine or across the country. Students must make their own arrangements to take the CLEP exam(s) and have official scores sent directly to the Registrar's Office at Central Maine Community College. For minimum CLEP score acceptance relative to the subject examination, contact the Registrar's Office. Acceptable CLEP examination scores will be recorded as a "P" on the student's transcript and will not be calculated in the GPA. <http://www.collegeboard.com/student/testing/clep/about.html>

Military Service Experience

College credit based on the American Council on Education's Guide to the Evaluation of Education Experiences in the Armed Services is the basis of this option. A DD214 form, a DD295, and/or other appropriate documentation must be provided by the student to the Registrar.

ACE Credit Evaluation Service

Matriculants who have participated in programs and courses (e.g., National Joint Apprenticeship and Training Committee for the Electrical Industry, I.B.E.W. and NECA) offered by non-collegiate organizations may qualify for credit evaluations through the ACE Credit Evaluation Service. Details are available from the Registrar or Office of Academic Affairs. <http://www.acenet.edu>

Portfolio Assessment

Portfolio Assessment offers matriculated students in some programs the opportunity to demonstrate learning gained through relevant work and life experiences which convert to course credits toward a college degree. Students develop an extensive portfolio which is evaluated by professional assessment under the direction of the Academic Affairs Office, faculty members, and in some cases, outside professionals from industry-specific fields. Successful completion of courses in College Writing and/or Technical Writing must be completed before students are permitted to initiate the Portfolio Assessment option. The student should first also meet with his/

her Academic Advisor and the Dean of Academic Affairs. Students are encouraged to successfully complete ENG 296, Portfolio Preparation Seminar, a 1 credit hour course, to learn how to prepare a portfolio for evaluation. The portfolio includes several major sections including a thorough resume, a narrative summary of relevant work and learning experiences, demonstrated skills and certified extensive training in specialized areas, and applied knowledge and competencies in a focused area for which Central Maine Community College credit is available. The portfolio assessment process may take up to an entire semester for development, evaluation, review, and approval. Applicable academic credit is assigned to the student's degree program with a grade of "P" for each 3 credit hour course earned. Note that students receiving Portfolio Assessment for credit must still earn a minimum of 25% of their degree coursework at Central Maine Community College.

SOC (Servicemembers Opportunity Colleges)

As a member of SOC, Central Maine Community College is committed to providing educational opportunities for all military personnel who can profit from our courses and programs. Servicemembers Opportunity Colleges is a consortium of over 1100 colleges and universities who have pledged to assist servicemembers and veterans who are in pursuit of college degrees. Additional details are available from military training and education officers or the Central Maine Community College Admissions Office. <http://www.soc.aascu.org/>

Transfer Credit from Colleges and Universities

Students may transfer course credit earned from other regionally accredited institutions into Central Maine Community College with a grade of C or higher. In some cases, course descriptions and/or syllabi may be required for transfer credit evaluation and acceptance. Institutions that do not have regional accreditation but to have other non-regional accreditation may be looked at on a case by case basis. Students who attended institutions with only non-regional accreditation are responsible for supplying course descriptions, syllabi, and instructor credentials for each class they would like transferred to CMCC. Students are responsible for ordering official transcripts from their former college or university

and have them directly sent to the attention of the Registrar at CMCC.

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, for example, where a grade of C or higher is required. The student's Academic Advisor, Department Chair, and the Registrar will work with the student to ensure appropriate transition. The Registrar will determine which courses are transferable and will consult faculty members, when appropriate. Transfer credit application forms are available from the Registrar's Office.

Note: Students requesting Veteran's Educational Assistance are required to have all previous post-secondary education or experience evaluated for possible transfer credit in order to be eligible for benefits.

Matriculation Policy

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 for ten calendar years from the first enrolled semester. One, three credit hour course, with a passing grade, must be taken annually or an application for re-admission must be submitted to the Admissions Office to regain matriculated status.

Non-Matriculated Students

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.

Evaluations

CMCC is committed to the improvement of student learning. The College routinely conducts internal audits and assessments during the year. Students also participate in class and 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. Graduate surveys are also conducted following May graduation.

Academic Policies and Procedures

Distance Learning

Central Maine Community College offers some courses for academic credit via the Internet. Students communicate with their instructors through electronic mail and receive their assignments through course materials posted on the Web. Some courses may require a textbook and/or materials on CD.

Course Numbering

001-050 General and ESL 070-075 developmental courses credit may not be applied towards a Certificate or Degree (the one exception is that MAT 050 may meet the math requirement for the OHS Certificate program);

051-099 limited to Certificate credit;

100-299 Certificate and Associate Degree credit.

Note: Students pursuing an Associate Degree should not register for courses with numbers less than 100 unless meeting prerequisite or specific major program requirements.

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 embossed with 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 against his or her account with the Business Office. Transcript applications are available from the Registrar's Office. The first 10 requests are free.

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; if still unresolved,

3. The matter may be appealed to the Dean of Academic Affairs for a final decision.

Appeal procedures have also been developed for resolving conflicts relating to affirmative action and discipline matters.

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 our 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. This information is also available on the college website and in the student handbook.

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:

1. Diagnosis must be described from Diagnostic and Statistical Manual of Mental Disorders IV or latest edition (if appropriate).
2. Date first diagnosed and beginning treatments or services. A general history and clinical interview should be included.
3. A description of the comprehensive diagnostic tests/methods used, including specific test scores (The report should contain raw scores, converted standard scores, index scores as applicable, including standard test scores and age equivalents) and examiner's narrative interpretation. This description should rule out other disability areas.
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.

Academic Policies and Procedures

5. 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.
6. 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.
7. A description of the expected progression of symptoms, especially during college years.
8. A history of previous accommodations and their impact.
9. 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)

1. Cognitive Component (WAIS III, preferred, other comparable accepted)
2. Achievement Component (WAIT II, preferred, other comparable accepted)
3. Information Processing Component (WMSIII, 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.

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 CMCC offers. Any modification of that requirement would substantially alter the nature of the educational preparation at CMCC. 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.

Procedure for Substitution/Waiver

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 CMCC'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:

1. Make the initial assessment of the relationship between the requested substitution and the disability; and
2. 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:

1. Meet and engage in a deliberative process to review the program requirements and why CMCC has the requirement at issue;
2. 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

3. 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:

1. 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
2. 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:

1. 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:
 - a. This will be indicated on the student's transcript;
 - b. All other degree requirements, such as the total number of credits required for the degree, must be met; and
 - c. 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:

1. 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 num-

ber 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. 227 or the Maine Relay at 1-800-457-1220.

Withdrawal from the College

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

Academic Support

Central Maine Community College is committed to a student's academic success. Some students arrive at college and find they are unprepared for academic work, some have not been to school for many years, others have a poor high school record, and some 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 goal and meet 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. CMCC 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 meet with the student periodically to review his/her academic status and progress, and 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 Studies

Developmental Studies is formal course work designed to improve study and learning habits, reading skills, writing competence, and math-

Academic Policies and Procedures

ematics abilities. Basic skills are expected to be developed to satisfactory levels within two academic semesters. Developmental courses (ENG 021, ENG 030, ENG 050, ESL 070-075; MAT 030, MAT 050; and LER 010, LER 011, LER 025) are listed in the Course Descriptions section of this catalog and do not apply toward degree completion.

Library

The Library supports the mission and curriculum of the College and works in partnership with the faculty, staff and students to create lifelong learners and experienced information users. Recognizing the vital role the Library plays in the educational development of the student, the Librarians acquire, store, disseminate, and interpret information in multiple formats to support the academic goals of the college.

Center for Retention and Transfer

The Center for Retention and Transfer, located in Jalbert 409, offers a variety of support services to students enrolled in General and Liberal Studies. For first-year students, the Center offers a one credit course entitled "First-Year Seminar," designed to assist new students with the successful adjustment to college academic and social life. For all students interested in transferring into other programs at CMCC, or to other colleges or institutions to pursue a baccalaureate degree, the Center offers resources to identify academic programs, articulation agreements to guide course selection, assistance in the application process, and opportunities to network with representatives of four-year institutions. Students interested in learning more about the First-Year Seminar should contact its Coordinator at (207) 755-5355. Students interested in learning more about transfer options should contact the Director of Transfer at (207) 755-5239. For general information about the Center, contact the Center's Director at (207) 755-7286 or visit the Center for Retention and Transfer in Jalbert Hall, Suite 409. A complete list of transfer agreements is also on the CMCC website (www.cmcc.edu).

Learning and Advising Center

The Learning and Advising Center located in Jalbert 400 is a study area open to all Central Maine Community College students. The LAC

offers academic resources such as computers, learning carrels, adaptive equipment, tutoring and special programs. Accuplacer testing is ongoing, and general advising is available. The Writing Center is adjacent to the Learning and Advising Center.

Writing Center

The Writing Center provides supplemental individualized 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. The Writing Center is staffed by professional writers, qualified peer tutors and experienced writing instructors. Students are encouraged to make appointments, but drop-in service is also available. The Writing Center is a program of the Humanities Department.

TRiO Student Support Services

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.

Success Center

The Success Center located in J-415 is a quiet study area offering academic resources such as computers, learning carrels, and assistive technology.

Transfer Agreements (from Central Maine Community College to Other Colleges and Universities)

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 upper-level 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. Refer to the Maine Community College System website for more information on the AdvantageU program (<http://advantageu.me.edu/>) or contact the Center for Retention and Transfer 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 offering distance learning degree programs, providing the convenience of on-line courses.

For a complete list of current Central Maine Community College transfer agreements, refer to: http://www.cmcc.edu/admissions/transfer_programs.asp.

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

For further information on the transfer of CMCC credit to other institutions, contact the Center for Retention and Transfer and/or the Admissions Office of the college/university where transferring.

Satisfactory Academic Progress

Academic Progress Reports

During the semester, when faculty deems it appropriate, notice is issued to students whose performance is unsatisfactory. The notice is in the form of a written report which describes deficiencies and suggests appropriate remedial action. Students who receive such notices should meet with their instructor(s) and academic advisor to discuss the problem(s) in more detail. Progress reports calling attention to outstanding, or satisfactory achievement are also issued by faculty.

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
A	Excellent Achievement	4.00
A-	3.67	
B+	3.33	
B	Good	3.00
B-	2.67	
C+	2.33	
C	Satisfactory	2.00
C-	1.67	
D+	1.33	
D	Poor/Low level achievement	1.00
F	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 Head, 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."

P Pass; used to designate satisfactory performance in certain courses open to the Pass - Fail option. Also used to indicate that a student has successfully challenged (tested out of) a course. Academic credit is awarded, but grade points are not calculated when a "P" is issued.

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 "Dropping." The grade of L will be computed as an F.

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, F, or P, the initial grade remains on the transcript but only the highest grade is used in computing the grade point average. .

AW Administratively Withdrawn. Authorized by the Dean of Academic Affairs, usually for compelling personal and/or confidential circumstances.

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

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

M Grade omitted from the student's official record because Academic Amnesty has been granted.

(207) 755-5292. Final grades cannot be secured in advance from the Registrar. Failure to pay a bill for fees and charges within the prescribed period may keep a student from receiving grades. For an explanation of Grades, Symbols and Codes, see Table 1. For an explanation of GPA, see Table 2 (page 25).

Unsatisfactory Progress

A student who is a matriculant in a catalog program is expected to complete and pass the courses for which he or she is registered during a given semester. A student who fails or withdraws from more than two courses during a semester may be placed on academic probation or suspended by the Dean of Academic Affairs.

Repeated Courses

Any course may be repeated for an improved grade. The initial grade remains on the transcript but the highest grade is used in computing the grade point average. No course may be repeated more than once without written approval of the Dean of Academic Affairs or designee.

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" and no "P" grades may be counted toward the minimum 6 credit hours carried. 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.

Academic Probation

At the end of each semester, students must achieve the cumulative grade point average listed in Table 3 (page 25) in order to remain in good academic standing. Students with grade point averages below good academic standing as shown on Table 3 will be placed on academic probation, suspension or dismissed from the College. A semester grade point average falling below 1.500 will, at a minimum, place the student on academic probation.

A student on probation must achieve a semester grade point average of at least 2.000 or risk academic suspension or dismissal.

Grade Reports

Printed grade reports are not mailed to students unless specifically requested. As of the spring 2004 semester, students can login to view and print their grades. Students who want to access

their academic transcript should go to 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 logon problems contact the Registrar's Office at

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
GAT 104 Copy Preparation Theory	1	F	0.00	0	0.00
GAT 105 Copy Preparation Operations	2	A	4.00	2	8.00
GAT 111 Offset Preparation	3	B-	2.67	3	8.01
GAT 121 Copy Center Management	1	L	0.00	0	0.00
GAT 131 Duplicator & Finishing Ops	3	A	4.00	3	12.00
MAT 101 Business Mathematics	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

Academic Standards

Minimum cumulative grade point averages for all catalog programs of the College are as follows:

For Students Pursuing The Award of	For Probationary Standing	For Good Academic Standing
<i>a Certificate</i>		
0 - 15 credit hours attempted	1.500 - 1.799	1.800 or higher
16 - 36 credit hours attempted	1.800 - 1.999	2.000 or higher
<i>an Associate Degree</i>		
0 - 36 credit hours attempted	1.500 - 1.799	1.800 or higher
37 - 72 credit hours attempted	1.800 - 1.999	2.000 or higher

Academic Suspension

Students who have two consecutive semesters of probationary standing may be suspended at the discretion of the Dean of Academic Affairs. In addition, a student may be suspended by the Dean if the semester grade point average falls below 1.500 or if the cumulative grade point average falls below probationary standing as listed in the Academic Standards Table 3. While under suspension students may not take course work at Central Maine Community College. Academic suspensions are imposed for a length of one academic semester.

Re-enrollment after Academic Suspension

Students who have been matriculated in catalog programs are eligible for re-enrollment at the College in accordance with the conditions out-

lined in their letters of suspension. Unless noted otherwise in the letter of suspension, the student may request reinstatement after one academic semester. Reinstatement is at the discretion of the Academic Dean.

Academic Dismissal

Students faced with academic suspension for a second time are dismissed from the College. In rare cases, students may be readmitted after being dismissed if they can provide evidence of significant academic improvement to the Dean of Academic Affairs. Such evidence would normally include high quality academic course work at another institution.

Academic Appeal

Students wishing to appeal the basis for the Academic Suspension or Academic Dismissal must do so, in writing, to the Dean of Academic

Affairs. If the appeal is not granted, or no appeal is filed, the student may apply for reinstatement to the Dean of Academic Affairs after meeting the terms or conditions of the suspension or dismissal.

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 an 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), and Associate in Applied Science degrees (AAS). Certificate programs are also granted. 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 CMCC 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 CMCC catalog.
5. Fulfill all financial obligations to the College in order to receive a degree or certificate.

Minimum Course Requirement for Program Completion

All Associate degree and Certificate programs require a minimum of twenty-five percent (25%) of degree credit coursework must be completed at Central Maine Community College.

Academic Policies and Procedures

Graduation Procedure

1. Students must complete an Application to Graduate from Central Maine Community College. Forms are available from the Registrar's Office and must be approved by the student's academic advisor, the Registrar, and the Academic Dean.
2. The College holds an annual Graduation Ceremony each May. Students wishing to participate in commencement ceremony must have completed and submitted their Application to Graduate to the Registrar's Office no later than the last Friday in March. Requests for graduation participation received after this deadline will be considered only under unique circumstances.
3. It is recommended that transfer credit be completed and approved by the College prior to the last semester of enrollment. Transfer credit acceptance after this period will likely result in a delay of degree or certificate award.
4. All degree requirements must be completed and approved for graduation, including the courses in which the student is currently enrolled to ensure graduation requirements are met.
5. Students with no more than 3 credit hours remaining for degree or certificate completion are allowed to participate in graduation ceremony if the student is enrolled in the next, immediate available term. The degree or certificate will be awarded after all credits have been earned.

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.

Multiple Degrees

Central Maine Community College students may earn multiple degrees but only one degree and major may be pursued at a time. Further details are available from the Registrar's Office.

Prerequisites for Mathematics Courses

Prerequisites courses from Central Maine Community College or other institutions must be at a grade of C (not C-) or higher. A mathematics SAT score of 480 or higher will serve as a prerequisite for any CMCC math course and takes the place of all prerequisites below. If a SAT score or prior CMCC course is not on record, both the applicable high school course(s) AND the CMCC Assessment and Placement percentiles in arithmetic and algebra must be met. These prerequisites may only be waived by full time Mathematics/Science faculty.

Course Number and Title	CMCC Course Prerequisites		ALL EQUIVALENTS ARE REQUIRED		
			High School Course Equivalents	CMCC Assessment and Placement Tests Minimum Percentiles	
				Arithmetic	Algebra
MAT 030 Basic Math				5%ile	
MAT 050 Algebra I	MAT 030	- or -		40%ile	20%ile
MAT 100 Intermediate Algebra	MAT 050	- or -	Algebra I	40%ile	40%ile
MAT 101 Business Math	MAT 030	- or -	Algebra I	40%ile	
MAT 102 Numbers and Logic	MAT 050	- or -	Algebra I	40%ile	40%ile
MAT 105 Geometry and Trigonometry	MAT 100	- or -	Algebra I Algebra II	50%	50%ile
MAT 122 College Algebra	MAT 100	- or -	Algebra I Algebra II	75%ile	75%ile
MAT 130 Technical Mathematics I Matriculant	TTV			(ACT Math 34)	
MAT 132 Pre-Calculus	MAT 122				
MAT 135 Statistics	MAT 100	- or -	Algebra I Algebra II	50%ile	50%ile
MAT 230 Technical Mathematics II	MAT 130				
MAT 280 Calculus	MAT 132				

AdvantageU

Enroll in a Maine Community College Liberal Studies Program, and sign up for AdvantageU!

- Experience a streamlined transfer process from a Community College to a public University
- Receive early advising toward your University major
- Transfer with junior standing and enjoy advanced registration with continuing students at your University

Maine's Community Colleges and public Universities are now offering a seamless pathway to a baccalaureate degree. Earn your Associate in Arts in Liberal Studies at one of Maine's seven Community Colleges, and you will receive guaranteed admission and a smooth transfer to any University in the University of Maine System.

A minimum GPA of 2.0 is required for guaranteed admission (2.5 at UMaine). The University of Maine at Farmington is subject to an enrollment cap.

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 competencies:

- Competency in Critical Thinking and the Scientific Method of Reasoning
- Competency in Communication
- Competency in Social responsibility
- Competency in Lifelong Learning and Self Growth Skills
- Competency in Information Literacy

General Education Core Curriculum

ENG 101 College Writing	3 credits
Communication Elective or Program Specific	3 credits
Social Science Elective or Program Specific	3 credits
Humanities Elective or Program Specific	3 credits
Mathematics or Science Elective or Program Specific	6 - 7 credits
General Education Elective or Program Specific	3 credits

Total Core Requirements

21 - 22 credits

Graduates of the Associate Degree Programs will meet the General Education Outcomes through the sum of their individual experiences at the College.

General Education Elective Courses by Abbreviation

Communications Electives - COM 100, 101, 121, 151; ENG 131, 201, 211, 220, 221.

Humanities Electives -ART, ASL, COM, ENG, ESL, FRE, HUM, INS, MUS, PHI, SPA, WST

Social Science Electives - ECO, GEY, HIS, POS, PSY, SOC, SSC

Math/Science Electives-AST, BIO, CHY, GEO, MAT, 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.

Programs and Course Abbreviations and Titles

AA = Associate in Art	INS = Interdisciplinary Studies
AAS = Associate in Applied Science	
AS = Associate in Science	LER = Learning Resources
ACC = Accounting	LS = Liberal Studies
ACET = Architectural & Civil Engineering Technology	
ART = Art	MAT = Mathematics
ASL = American Sign Language	MCO = Medical Coding
AST = Astronomy	MEA = Medical Assistant
ATS = Applied Technical Studies	MET = Medical Transcription
AUT = Automotive Technology	MTT = Machine Tool Technology
	MUS = Music
BCA = Business and Computer Applications	
BCT = Building Construction Technology	NUR = Nursing
BIO = Biology	
BUS = Business (Administration and Management)	OHS = Occupational Health and Safety
CAD = Computer Aided Drafting	PHI = Philosophy
CHY = Chemistry	PHY = Physics
COM = Communication	POS = Political Science
CPT = Computer Technology	PSM = Parts and Service Management (Automotive)
CRJ = Criminal Justice	PSY = Psychology
CSH = Construction Safety	
CUA = Culinary Arts	RAT = Radiologic Technology
	REE = Real Estate
ECE = Early Childhood Education	
ECO = Economics	SCI = Science
EDU = Education	SOC = Sociology
ELT = Electromechanical Technology	SPA = Spanish
ENG = English	SSC = Social Science
ESL = English as a Second Language	SPE = Speech
FOA = Ford ASSET (Automotive Technology)	TET = Telecommunications Technology
FRE = French	THE = Theater
	TTO = Trade and Technical Occupations
GAT = Graphic Arts/Printing Technology	TTV = Telecommunications Technology (Verizon)
GEO = Geology	
GEY = Human Geography	WST = Women's Studies
GS = General Studies	
HIS = History	
HUM = Humanities	
HUS = Human Services	

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 located on pages 5 through 8.

Accounting (ACC)

Program Description

The Accounting program provides 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 Associate in Science in Accounting 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.

Students may enroll on a full or part-time basis and may take courses in the day, evening, or both, depending upon availability. Full-time students who begin their studies in the fall semester can expect to complete the degree requirements in four semesters. Students not starting in the fall may need more than two years to complete the program. Part-time students may need several years to complete the program requirements. Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and Business Communication (ENG 220) in order to meet the degree requirements of this program.

Career Opportunities

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

Program Educational Outcomes

Upon completion of the Associate in Science Degree in the Accounting Program, 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.
3. Demonstrate oral and written presentation skills unique to the financial community.
4. Utilize technology to assess, evaluate, and apply information.
5. Employ analytical and problem-solving skills, quantitative reasoning, and ethical standards to the work setting.
6. Demonstrate proficiency in the preparation of, the analysis of, and use of financial statements and other financial reporting tools.
7. Demonstrate skills in reading, writing, communication, critical thinking, reasoning, as well as knowledge and use of terminology of an accounting professional who would deal with various businesses and non-business constituencies.
8. Utilize knowledge of the practice of transferring accounting theory into actual practice.
9. Demonstrate commitment to the concept of life-long learning to keep current with practices and technology in the field and/or join professional associations and/or enroll for BS Degree.

Associate in Science Degree Requirements

Semester I		Credit Hours
ACC 210	Principles of Accounting I	3
BUS 100	Understanding Business	3
ENG 101*	College Writing**	3
MAT 101*	Business Mathematics	3
— —	Elective - BCA Computer Applications	3
	BCA 120 Intro to Computer Applications	
	BCA 241 Spreadsheets	
	BCA 246 Database Management	
*Course placement determined by assessment test scores and/or prior college course work.		
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
	PSY 101 Intro to Psychology	
	PSY 116 Psychology of Group Dynamics	
	PSY 120 Psychology in the Workplace	
	PSY 201 Social Psychology	
	SOC 101 Intro to Sociology	
	or Advisor approved	
Semester III		
ACC 240	Intermediate Accounting I	3
ACC 246	Tax Accounting	3
BUS 110	Principles of Supervision	3
ECO 201	Macroeconomics	3
MAT 135	Statistics	3
— —	Elective - Communications	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 225	Managerial Accounting	3
ACC 248	Payroll Accounting	3
— —	Elective - Mathematics/Science - Advisor approved	3-4
Total Credit Hour Requirements		63-64

Distribution of A.S. Credit Hour Requirements

Humanities and Social Sciences - 21 (35%)

ECO 201; ENG 101, 220; PHI 101; one Communications elective; and one Humanities elective.

Mathematics and/or Science - 12 (20%)

MAT 101, MAT 122, MAT 135 and one Math/Science elective.

Concentration - 27 (45%)

ACC 210, 212, 225, 240, 242, 244, 246, 248; BUS 100, 110; and one BCA elective.

Prerequisites: H.S. diploma or GED, Algebra I

Applied Technical Studies (ATS)

Program Description

The purpose of this Associate in Applied Science degree program is 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 occupational experience which exhibits both breadth and depth. This experience will be documented in a portfolio which may potentially award students up to 24 credits upon assessment by a portfolio review committee. 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 post-secondary 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 of the Applied Technical Studies Program, 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
ATS 199 Prior Learning - Portfolio Assessment - Advisor approved	24
ENG 101* College Writing	3
ENG 201 Technical Writing	3
ENG 296 Portfolio Development Seminar	1
___ ___ Elective: Communication - Select one of the following:	3
COM 100 Public Speaking	
COM 101 Interpersonal Communication	
___ ___ Elective: Humanities - Advisor approved	3
___ ___ Electives: Mathematics (100 or higher) - Advisor approved	6
___ ___ Elective: Science - Advisor approved	3-4
___ ___ Elective: Social Science - Advisor approved	3
___ ___ Elective: General Education - Advisor approved	3

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

Related Courses

___ ___ Elective: BCA Advisor approved	3
___ ___ Elective: OHS Advisor approved	3
___ ___ Electives:	9
Selected from catalog courses provided that prerequisites are met and Advisor approval is obtained.	

Total Credit Hour Requirements 67-68

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 16 (24%)

COM 100 or COM 101; ENG 101, 201, 296; one Social Science elective; and one Humanities elective.

Mathematics and/or Science - 9 (13.4%)

Two MAT electives; one Science elective.

Concentration - 39 (58.2%)

ATS 199; BCA elective; OHS elective; and three electives.

Elective - General Education elective - 3 (4.4%)

Prerequisites: H.S. diploma or GED, Significant occupational training and experience

Architectural and Civil Engineering Technology (ACET)

Program Description

The Architectural and Civil Engineering Technology Program prepares individuals to become technicians who are capable of translating the innovative concepts of the professional designer or engineer into functioning systems and structures. In this translation the language of codes, working drawings, specifications, and construction are used. Through a combination of classroom study, assigned projects in the CAD lab and field activities, students become skilled in the Architectural and Civil Engineering Technology field. Focusing upon commercial structures and industrial buildings, students develop a familiarity with materials and the basic concepts of structural design, mechanical systems for buildings, cost estimating and surveying. The application of computers to the design field is an integral part of the curriculum.

The Architectural and Civil Engineering Technology Program provides students with the opportunity to earn an Associate in Applied Science Degree.

The Architectural and Civil Engineering Technology Program is accredited by the Technology Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 Telephone 410-347-7700 and has been since the initial accreditation in 1984.

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 of the Associate in Applied Science Degree in Architectural and Civil Engineering Technology Program, the graduate is prepared to:

1. Integrate knowledge, skills and tools with a commitment to quality, timeliness & continued improvement
2. Apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology
3. Conduct, analyze and interpret experiments and apply experimental results to improve processes
4. Apply creativity in the design of systems, components or processes appropriate to program objectives
5. Function effectively on teams
6. Identify, analyze and solve technical problems
7. Communicate effectively
8. Recognize the need for lifelong learning
9. Understand professional, ethical and social responsibilities
10. Respect diversity through a knowledge of current professional, societal and global issues.

Associate in Applied Science Degree Requirements

Semester I Credit Hours

ACET 113 Architecture and Design	3
ACET 121 Structures I	3
ACET 115 Building and Site Pre-design	3
ENG 101* College Writing	3
MAT 122* College Algebra	3
___ ___ Elective: Humanities - Advisor approved	3

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

Semester II

ACET 114 Construction and Materials	4
ACET 122 Structures II	3
ACET 131 Surveying I	3
MAT 132 Pre-Calculus	3
PHY 142 Physics I (Lec.)	3
PHY 143 Physics I (Lab)	1

Semester III

ACET 132 Surveying II	3
ACET 204 Building Systems	3
ACET 261 Civil Technology	3
ACET 285 Civil Site Design CAD	3
PHY 242 Physics II (Lec.)	3
___ ___ Elective: Social Science - Advisor approved	3

Semester IV

ACET 234 Legal Aspects of Surveying	3
ACET 242 Independent Project	1
ACET 262 Soils and Foundations	1
ACET 274 Project Management	3
ENG 201 Technical Writing	3
MAT 280 Calculus	3
___ ___ Elective - Advisor approved	3

Total Credit Hour Requirements **70**

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 12 (17%)

ENG 101, 201; one Humanities elective; and one Social Science elective

Mathematics and/or Science - 16 (23%)

MAT 122, 132, 280; PHY 142, 143, 242

Concentration - 39 (56%)

ACET 113, 114, 115, 121, 122, 131, 132, 204, 234, 242, 261, 262, 274, 285

Elective - 3 (4%)

Prerequisites: H.S. diploma or GED, "C" or better in Algebra I & II, Geometry, Physics, basic computer skills

Automotive Technology (AUT)

Program Description

The Automotive program 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 2004.

You can now choose between two program options to better match your specific needs. Our traditional *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. Our *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.

Students have the opportunity to earn a degree and may enroll on a full or part-time basis and may take courses in the day, evening, or both, depending upon availability. Students enrolled for full-time course work usually need two academic years to complete the Associate Degree. Part-time students may need several years to complete the program requirements.

Today, 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.

Career Opportunities

Upon graduation, 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.

Program Outcomes

Upon completion of the Associate in Applied Science Degree in the Automotive Technology Program, 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.

(Continued on next page.)

Automotive Technology (AUT)

Select an area of Specialization (Advisor approved)

Semester I	Credits
AUT 100 Introduction to Automotive Technology	1
AUT 110 Brakes	2
AUT 120 Suspension and Steering I	2
AUT 150 Electric Systems I	3
AUT 170 Engine Performance I	3
ENG 101* College Writing	3
MAT 100* Intermediate Algebra	3

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

<i>In-House Campus Concentration</i>	
Semester II	Credits
AUT 130 Introduction to Engine Repair (Lec.)	1
AUT 131 Engine Repair (Lab)	3
AUT 155 Electric Systems II (Lec.)	1
AUT 156 Electric Systems II (Lab)	4
AUT 160 Air Conditioning	1
AUT 175 Alternate Fuels	1
MAT 105 Geometry and Trigonometry	3
___ ___ Elective: Humanities - Advisor approved	3
Semester III	
AUT 200 State Inspection	1
AUT 240 Automatic Transmission	6
AUT 270 Engine Performance II	4
ENG 201 Technical Writing	3
PHY 121 Technical Physics I (Lec)	3
PHY 122 Technical Physics I (Lab)	1
Semester IV	
AUT 245 Manual Drive Train/Axles	4
AUT 275 Engine Performance III	3
AUT 290 Advanced Chassis Systems (Lec)	1
AUT 291 Advanced Chassis Systems (Lab)	3
___ ___ Elective: Advisor approved	3
___ ___ Elective: Social Science - Advisor approved	3
Total Credit Hour Requirements	69
Distribution of A.A.S. Credit Hour Requirements	
<i>Humanities and Social Sciences - 12 (17%)</i>	
ENG 101, 201; one Humanities elective; and one Social Science elective	
<i>Mathematics, Science - 10 (15%)</i>	
MAT 100, 105, PHY 121, 122	
<i>Concentration - 44 (64%)</i>	
AUT 100, 110, 120, 130, 131, 150, 155, 156, 160, 170, 175, 200, 290, 291, 240, 245, 270, 275	
<i>Elective - 3 (4%)</i>	

<i>Dealer TraX Concentration</i>	
Semester II	Credits
AUT 180 Field Experience for (AUT 110,120,150,170)	4
AUT 159 Electrical Systems II and Air Conditioning	5
ENG 201 Technical Writing	3
___ ___ Elective: Social Science - Advisor approved	3
Summer Session	
AUT 181 Field Experience for (AUT 159)	2
AUT 130 Introduction to Engine Repair (Lec.)	1
AUT 131 Engine Repair (Lab)	3
___ ___ Elective - Advisor approved	3
Semester III	
AUT 182 Field Experience for (AUT 130, 131, 241)	4
AUT 241 Automatic/Manual Transmission	5
MAT 105 Geometry and Trigonometry	3
___ ___ Elective: Humanities - Advisor approved	3
Semester IV	
AUT 184 Field Experience for (AUT 271)	4
AUT 271 Electronic Engine Control	5
___ ___ Elective: Math/Science - Advisor approved	3-4
<i>PHY121/122 Technical Physics recommended</i>	
Total Credit Hour Requirements	68-69
Distribution of A.A.S. Credit Hour Requirements	
<i>Humanities and Social Sciences - 12 (17%)</i>	
ENG 101, 201; one Humanities elective; and one Social Science elective	
<i>Mathematics, Science - 9-10 (15%)</i>	
MAT 100, 105; and one Math/Science elective	
<i>Concentration - 45 (64%)</i>	
AUT 100, 110, 120, 130, 131, 150, 159, 170, 180, 181, 182, 184, 241, 271	
<i>Elective - 3 (4%)</i>	

Automotive Technology Ford ASSET (FOA)

Program Description

The ASSET (Automotive Student Service Educational Training) 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.

Today, 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.

Program Outcomes

Upon completion of the Associate in Applied Science Degree in the Automotive Technology Program - Ford ASSET (FOA), 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 101* College Writing	3
FOA 100 Dealer Practices	2
FOA 151 Field Experience	5
FOA 152 Auto Electrical Systems	3
MAT 100* Intermediate Algebra	3

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

Semester II	Credit Hours
ENG 201 Technical Writing	3
FOA 190 Brakes, Steering, Suspension and Drivelines	5
FOA 191 Field Experience	5
_____ Elective: Social Science - Advisor approved	3

Summer Session	Credit Hours
FOA 130 Engine Repair/Climate Control	4
FOA 131 Field Experience	2
_____ Elective - Advisor approved	3

Semester III	Credit Hours
FOA 232 Field Experience	4
FOA 270 Computer Controlled Systems, Engine Performance, Fuels and Emissions	5
MAT 105 Geometry and Trigonometry	3
_____ Elective: Humanities - Advisor approved	3

Semester IV	Credit Hours
FOA 240 Automatic/Manual Transmissions	5
FOA 271 Field Experience	5
_____ Elective: Math/Science - Advisor Approved	3-4
<i>PHY121/122 Technical Physics recommended</i>	

Total Credit Hour Requirements 69-70

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 12 (17%)

ENG 101, 201; one Humanities; and one Social Science elective

Mathematics and/or Science - 9-10 (14%)

MAT 100, 105; and one Math/Science elective

Concentration - 45 (65%)

FOA 100, 130, 131, 151, 152, 190, 191, 232, 240, 270, 271

Elective - 3 (4%)

Prerequisites: H.S. diploma or GED, Algebra I

Automotive Technology Parts and Service Management (PSM)

Program Educational Outcomes:

Upon completion of the Associate in Applied Science in Automotive Technology - Parts & Service Management Program, the graduate is prepared to:

1. Perform all NATEF (P-1) tasks to diagnose and repair systems associated with automotive chassis components.
2. Locate and identify all assemblies and components associated with automotive engine, power transmission, and electrical/electronic controls of all accessory and ergonomics systems.
3. Communicate clearly using written, verbal, and electronic means.
4. Apply safety standards related to the Automotive Industry.
5. Utilize management and supervisory skills needed while working in the business environment.
6. Utilize technology to analyze business problems and construct appropriate solutions.
7. Diagnose marketing and management related issues and plan future actions.
8. Utilize appropriate technology and critical thinking skills to assess, evaluate, and apply information.

Certificate Requirements

Suggested Sequence of Courses

Semester I Credit Hours

AUT 100	Introduction to Automotive	1
AUT 110	Brakes I	2
AUT 120	Suspension and Alignment	2
AUT 150	Electrical Systems I	3
AUT 170	Engine Performance I	3
ENG 101*	College Writing	3
MAT 101*	Business Mathematics	3

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

Semester II

BUS 110	Principles of Supervision	3
PSM 100	Parts/Service Management Field Experience I	3
PSM 101	Fundamentals to Advanced Automotive Systems	3
— —	Elective: BUS Select one of the following:	3
	BUS 100 Understanding Business	
	BUS 101 Small Business Management	
— —	Elective: Mathematics - Advisor approved	3

Total Credit Hour Requirements 32

Building Construction Technology (BCT)

Program Description

With a focus on residential dwellings and light commercial structures, the Building Construction Technology Program provides comprehensive training in the development of carpentry and related skills. Through a combination of classroom study and assigned shop activities, students obtain practical experience and become broadly familiar with methods and standards commonly associated with the construction industry. In addition to the emphasis on trade skills, students receive instruction in computer aided drafting, surveying, and cost estimating. Safety and health standards as they relate to the tools, materials, supplies and equipment of the building construction industry are included in all course instruction.

The Building Construction Technology program offers students the opportunity to earn a Certificate or an Associate in Applied Science degree.

Career Opportunities

Graduates of this program typically accept employment with residential contractors, light commercial, institutional and heavy construction; building materials suppliers; manufacturers of prefabricated modular units; and in cabinet shops. With additional experience, graduates also become self-employed as contractors. Building inspection and code enforcement are also career possibilities.

Program Educational Outcomes

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

1. Construct a site plan through lot and building layout.
2. Design a complete set of working drawings for a residential structure.
3. Estimate costs of projects from a set of working drawings.
4. Construct and remodel residential structures within safety and building code guidelines.
5. Design supports by determining strengths of materials through standard architectural procedures.
6. Communicate with manufacturers and suppliers via oral, written, and electronic methods.
7. Assemble masonry chimneys, walls, and hearths.
8. Build a complete residential structure from start to finish.

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Science - 12 (19%)

ENG 101, 201 and two electives

Mathematics and/or Science - 9 - 10 (14 %)

MAT 100, 105 and one Math/Science elective

Concentration - 40 (62%)

BCA 120; BCT 101, 106, 107, 108, 126, 127, 128, 133, 134, 135, 136, 138, 202, 203, 235, 236, 237, 240; OHS 115

Elective - 3 (5%)

Prerequisites: Algebra I, Geometry

Associate in Applied Science Degree Requirements

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

Semester I Credit Hours

BCA 120	Introduction to Computer Applications	3
BCT 101	Introduction to Hand and Power Tool Safety	1
BCT 106	Concrete Forms	2
BCT 107	Floor Framing	2
BCT 108	Wall Framing	2
BCT 126	Construction Site Surveying	2
BCT 127	Introduction to Residential CAD	3
MAT 100*	Intermediate Algebra	3

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

Semester II

BCT 128	Basic Strength of Materials	2
BCT 133	Roofing	1
BCT 134	Siding	1
BCT 135	Roof Framing	2
BCT 136	Exterior Roof Trim	2
BCT 138	Doors and Windows	2
BCT 240	Construction Drafting	3
MAT 105	Geometry and Trigonometry	3

Semester III

BCT 202	Construction Estimating	3
BCT 203	Interior Trim	2
ENG 101	College Writing	3
OHS 115	Basic Principles of Construction Safety and Health	3
___ ___	Elective: General Education - Advisor approved	3
___ ___	Elective: Mathematics/Science - Advisor approved	3-4

Semester IV

BCT 235	Cabinets	2
BCT 236	Finished Stairs	2
BCT 237	Masonry	2
ENG 201	Technical Writing	3
___ ___	Elective: Humanities - Advisor approved	3
___ ___	Elective: Social Science - Advisor approved	3

Total Credit Hour Requirements 66-67

(Continued on next page.)

Building Construction Technology (BCT)

Certificate Requirements

Suggested Sequence of Courses

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

Semester I		Credit Hours
BCA 120	Introduction to Computer Applications	3
BCT 101	Introduction to Hand & Power Tool Safety	1
BCT 106	Concrete Forms	2
BCT 107	Floor Framing	2
BCT 108	Wall Framing	2
BCT 126	Construction Site Surveying	2
BCT 127	Introduction to Residential CAD	3
MAT 100*	Intermediate Algebra	3
Semester II		
BCT 128	Basic Strength of Materials	2
BCT 133	Roofing	1
BCT 134	Siding	1
BCT 135	Roof Framing	2
BCT 136	Exterior Roof Trim	2
BCT 138	Doors and Windows	2
ENG 101*	College Writing	3
MAT 105	Geometry and Trigonometry	3

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

Total Credit Hour Requirements **34**

Business Administration and Management (BUS)

Program Description

The Business Administration and Management program offers full or part time students the opportunity to earn a Certificate or an Associate in Applied Science degree by taking day and/or evening courses. The program of study includes activities found in a modern business or industrial organization including accounting, marketing, customer relations and strategic planning. Concentrations are offered in Business Administration, Supervision & Management, Sales Administration & Management, Sports Management and Hospitality Management (See Page 52).

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

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 1996, the Business program was granted accreditation status by the Association of Collegiate Business Schools and Programs (ACBSP), 7007 College Boulevard, Suite 420, Overland Park, Kansas 66211, telephone (913) 339-9356. The College remains an active member of the Association.

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.).

Occupational Health and Safety (OHS)

The College is in the process of transitioning the Associate Degree in Occupational Health and Safety to an Option in the Business Administration and Management Degree. During this transition period, OHS courses may be used to satisfy the concentration course requirement in the Business Program. OHS courses may also be used to satisfy the elective course requirements in the General Studies Program.

Program Educational Outcomes

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

1. Utilize effective management and supervisory skills needed for working in a business environment.
2. Organize teams, groups, and individuals in business situations.
3. Demonstrate oral and written presentation skills unique to the business community.
4. Utilize technology to analyze business problems and construct appropriate solutions.
5. Use analytical and problem solving skills, quantitative reasoning, and ethical standards in a business environment.
6. Diagnose marketing and management related issues and plan future actions.
7. Incorporate appropriate business terminology into effective communication (reading, writing, and graphics).
8. Utilize appropriate technology and critical thinking skills to assess, evaluate, and apply information.
9. Demonstrate commitment to the concept of life-long learning to keep current with practices and technology in the field and/or join professional associations and/or enroll for B.S. degree.

Distribution of A.A.S. Degree Credit Hour Requirements

Humanities and Social Science - 18 (30%)

COM 100, 101 or 121; ECO 201; ENG 101; one Social Science elective; and one Humanities elective.

Mathematics and/or Science - 9-10 (15%)

MAT 101, 122 and one Math/Science elective

Specialty/Concentration - 33 (55%)

ACC 210, 212; BCA 120 and one BCA elective; BUS 100, 110, 120 or 122, 150, 215, 260 and one business related elective.

(Continued on next page.)

Business Administration and Management (BUS)

Associate in Applied Science Degree

Suggested Sequence of Courses*

Semester I Credit Hours

BCA 120	Introduction to Computer Applications	3
BUS 100	Understanding Business	3
BUS 110	Principles of Supervision	3
___	Elective: Business - select one of the following:	3
	BUS 120 Employment Law	
	BUS 122 Business Law	
ENG 101*	College Writing**	3

Semester III

ACC ___	Concentration course (see below)	3
BUS 215	Principles of Marketing	3
ENG 220	Business Communications**	3
MAT 122	College Algebra	3
___	Elective: Business related - Advisor approved	3

Semester II

BUS 150	Effective Customer Relations	3
MAT 101*	Business Mathematics	3
___	Elective: Communication - select one of the following:	3
	COM 100, COM 101 or COM 121	
___	Concentration course (see below)	3
___	Elective: Humanities - Advisor approved	3

Semester IV

___	Concentration course (see below)	3
___	Concentration course (see below)	3
ECO 201	Introduction to Macroeconomics	3
___	Elective: Social Science - Advisor approved	3
___	Elective: Mathematics/Science - Advisor approved	3-4

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

**Note: Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and, if applicable, Business Communication (ENG 220) in order to meet Certificate or Associate Degree requirements of this program.

Concentrations (approved by Advisor)

In addition to the core requirements, students must complete all courses in the concentration prior to graduation.

	Credit Hours				
Supervision and Management		Sports Management			
ACC 208	Financial Accounting	3	ACC 208	Financial Accounting	3
BCA ___	Elective - Advisor approved	3	BUS 140	Introduction to Sports Management	3
BUS 115	Leadership and Interpersonal Relations	3	BUS 145	Facilities Management	3
BUS 220	Managing People and Organizations	3	BUS 230	Internship (see Advisor)	3
				(fulfills one of the BCA electives listed above)	
Sales Administration and Management		Business Administration and Management			
ACC 208	Financial Accounting	3	ACC 210	Principles of Accounting I	3
BCA ___	Elective - Advisor approved	3	ACC 212	Principles of Accounting II	3
BUS 155	Retail Merchandising Management	3	BCA ___	Elective - Advisor approved	3
BUS 160	Introduction to Sales and Sales Management	3	BUS 260	Finance	3
			Total Credit Hour Requirements		60-61

Certificate Requirements

Suggested Sequence of Courses*

Semester I

BCA 120	Intro to Computer Applications	3
BUS 100	Understanding Business	3
BUS 110	Principles of Supervision	3
ENG 101*	College Writing**	3
___	Elective: BUS - select one of the following:	3
	BUS 120 Employment Law	
	BUS 122 Business Law (ENG 101)	

Semester II

BUS 115	Leadership and Interpersonal Relations	3
BUS 150	Effective Customer Relations	3
BUS 180	Managing Office Procedures	3
MAT 101*	Business Mathematics	3

Total Credit Hour Requirements **27**

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

**Note: Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and, if applicable, Business Communication (ENG 220) in order to meet Certificate or Associate Degree requirements of this program.

Business Administration and Management (BUS)

Hospitality Management Concentration

Program Description

The Hospitality Management concentration is designed for those who have an interest in pursuing a career in the hospitality 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.

Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and Business Communication (ENG 220) in order to meet the Degree requirements of this program.

Program Educational Outcomes

Upon completion of the Concentration in Culinary Arts/ Hospitality Management, the graduate is prepared to:

1. Develop or implement inventory and sanitary procedures for a food service enterprise.
2. Plan food service events, given time and cost constraints.
3. Evaluate customer service, marketing, and operational procedures of a small to medium size food service/lodging enterprise.
4. Understand the related food service/lodging legal and regulated environment.
5. Diagnose financial performance of a small to medium size food service/lodging enterprise.

Distribution of A.A.S. Degree Credit Hour Requirements

Humanities and Social Sciences - 15 (23%)

COM 100; ENG 101, 220; one Humanities; and one Social Science elective

Mathematics and/or Science - 9-10 (14%)

MAT 101, MAT 122 and one Math/Science elective

Specialty/Concentration - 40 (63%)

ACC 208; BCA 120; BUS 110, 150, 270; CUA 101, 111, 121, 153, 163, 171, 179

Associate in Applied Science Degree Requirements

Suggested Sequence of Courses

Semester I		Credit Hours
CUA 101	Principles of Cooking	4
CUA 111	Introduction to Baking	4
CUA 121	Food Preparation	3
ENG 101*	College Writing**	3
_____	Elective: Humanities - Advisor approved	3
Semester II		
CUA 153	Quantity Food Production	5
CUA 163	Desserts and Pastries	5
CUA 171	Nutrition and Food Quality	3
CUA 179	Food Purchasing	1
MAT 101*	Business Mathematics	3
<i>*Course placement determined by assessment test scores and/or prior college course work.</i>		
Semester III		
ACC 208	Financial Accounting	3
BCA 120	Introduction to Computer Applications	3
BUS 110	Principles of Supervision	3
COM100	Public Speaking	3
MAT 122	College Algebra	3
Semester IV		
BUS 150	Effective Customer Relations	3
BUS 270	Hospitality Management	3
ENG 220	Business Communication**	3
_____	Elective: Mathematics/Science - Advisor approved	3-4
_____	Elective: Social Science - Advisor approved	3
Total Credit Hour Requirements		64-65

****Note:** Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and Business Communication (ENG 220) in order to meet Associate Degree requirements of this program.

Business and Computer Applications (BCA)

Program Description

The Business and Computer Applications program provides students with a choice of educational goals. The Certificate curriculum offers the opportunity to acquire skills in integrating and managing information, document management and Internet research. The purpose of the Associate in Applied Science degree program is to prepare individuals to organize and supervise a contemporary business, industrial or professional office. Instructors use the latest in software and hardware.

Students may enroll on a full-time or part-time basis and may take courses in the day, evening or both depending upon availability. Students enrolled for full-time course work usually need one academic year to complete the requirements of a certificate and two academic years to complete the associate degree. Part-time students may need several years to complete program requirements. Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and, if applicable, Business Communication (ENG 220) in order to meet certificate or degree requirements of this program.

Career Opportunities

Graduates of the Certificate program will be prepared to accept positions such as application support specialists or office information specialists in business, industry and government. Graduates of the Associate Degree program will be prepared to accept positions such as data analysts, office managers, and administrative assistants or in software sales in business, industry and government. Additional education and experience can lead the graduate to advanced administrative and supervisory positions.

Special Admission Requirements

In addition to meeting the general admission requirements of the College, applicants to this program must have average or better skills in mathematics and English. Central Maine Community College will be pleased to help under prepared applicants develop a plan to meet admission requirements.

Program Educational Outcomes

Upon completion of the Associate in Applied Science Degree in Business and Computer Applications Program, the graduate is prepared to:

1. Demonstrate speed and accuracy in keyboarding and computer application skills that will meet current industry standards.
2. Generate complex and integrated documents using current word processing, spreadsheet, database, and presentation graphic software appropriate for the office environment.
3. Demonstrate the ability to read, understand, and prepare standard types of business communications.
4. Evaluate how business processes change with the use of the Internet.
5. Evaluate data and information as applied to Business and Office Administration.
6. Manage various automated office systems.
7. Demonstrate commitment to the concept of life-long learning to keep current with practices and technology in the field and/or join professional associations and/or enroll for B.S. degree.

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 15 (25%)

COM 100; ENG 101, 220; one Humanities elective; and one Social Science elective

Mathematics and/or Science - 9 - 10 (15%)

MAT 101, MAT 122 and one Math/Science elective

Concentration - 36 (60%)

ACC 208; BCA 120, 121, 125, 241, 246, 250; BUS 100, 110, 150, 180 and 255 and one BUS related elective

(Continued on next page)

Business and Computer Applications (BCA)

Associate in Applied Science Degree Requirements

Suggested Sequence of Courses

Semester I	Credit Hours
BCA 120 Introduction to Computer Applications	3
BUS 100 Understanding Business	3
BUS 110 Principles of Supervision	3
ENG 101* College Writing**	3
MAT 101* Business Mathematics	3

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

Semester II	Credit Hours
BCA 121 Word Processing	3
BCA 125 Navigating the Net	3
BUS 150 Effective Customer Relations	3
COM 100 Public Speaking	3
MAT 122 College Algebra	3

Semester III	Credit Hours
ACC 208 Financial Accounting	3
BCA 241 Spreadsheet	3
____ Elective: Business related or Applied Visual Basic - Advisor approved	3
BUS 255 Electronic Commerce	3
ENG 220 Business Communication**	3

Semester IV	Credit Hours
BCA 246 Database Management	3
BUS 180 Managing Office Procedures	3
____ Elective: Humanities - Advisor approved	3
____ Elective: Mathematics/Science - Advisor approved	3-4
____ Elective: Social Science - Advisor approved	3

Total Credit Hour Requirements 60-61

***Note: Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and, if applicable Business Communication (ENG 220) in order to meet certificate or degree requirements of this program.*

Certificate Requirements

Suggested Sequence of Courses

Semester I	Credit Hours
BCA 120 Introduction to Computer Applications	3
BCA 121 Word Processing	3
BCA 125 Navigating the Net	3
BUS 100 Understanding Business	3
BUS 150 Effective Customer Relations	3

Semester II	Credit Hours
ACC 208 Financial Accounting	3
BUS 180 Managing Office Procedures	3
ENG 101* College Writing**	3
MAT 101* Business Mathematics	3
Elective: BCA - select one of the following:	3
BCA 241 Spreadsheet	
BCA 246 Database Management	

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

Total Credit Hour Requirements 30

***Note: Students must earn a grade of C (not C-) or better in College Writing (ENG 101) and, if applicable, Business Communication (ENG 220) in order to meet Certificate or Associate Degree requirements of this program.*

Computer Technology (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 award while the Associate in Applied Science degree has as its focus, 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. Graduates will be expected to exhibit an in-depth understanding of PCs and demonstrate the ability to install software and hardware, provide maintenance, troubleshoot, evaluate PCs, train new users, and work with networks. In addition, because this work is service oriented, graduates will be expected to demonstrate positive customer relation skills.

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

Students may enroll on a full or part-time basis and may take courses in the day, evening, or both, depending upon availability. Students enrolled for full-time course work usually need two academic years to complete the associate degree. Part-time students may need several years to complete the program requirements.

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.

Prerequisites: H.S. diploma or GED, Algebra I, basic computer software skills

Note: Students must earn a grade of C or better in College Writing (ENG 101), College Algebra (MAT 122), Interpersonal Communication (COM 101), and all CPT core courses in order to meet the degree requirements of this program.

***Note to Electives: Electives offered vary year by year; please see your advisor for the most current list.**

(Continued on next page.)

Other Department Electives

BUS 101	Small Business Management
ELT 111	Electricity I
ELT 153	Digital Logic
ELT 167	Data Telecommunications
GAT 108	Introduction to Acrobat Professional
GAT 176	Photoshop I
GAT 177	Photoshop II
LER 150	Information Technology

Computer Technology Electives (Con't.)

CPT 271	Network Security
CPT 272	Exchange/IIIS
CPT 285	Senior Networking Capstone Project
CPT 296	Topics in Information Technology

Associate in Science Degree Requirements

Semester I		Credit Hours
BCA 152	Integrated Software Applications	3
CPT 147	Introduction to PC Repair/OS	3
ENG 101*	College Writing	3
MAT 102	Numbers and Logic	3
MAT ___*	Select one of the following:	3
	MAT 122 College Algebra	
	MAT 125 Finite Mathematics	

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

Semester II		Credit Hours
CPT 130	Introduction to Visual BASIC	3
CPT 201	Linux	3
CPT 235	Introduction to Networking	3
ENG 201	Technical Writing	3
PHI 101	Critical Thinking	3

Semester III		Credit Hours
CPT 225	Advanced PC Repair	3
CPT 266	Server Administration	3
INS 101	Technology and Society	3
MAT 135	Statistics	3
___ ___	Elective: CPT or other Dept. - Advisor approved	3

Semester IV		Credit Hours
BCA 246	Database Management	3
COM ___	Select one of the following:	3
	COM 101 Interpersonal Communication	
	COM 121 Group Process	
___ ___	Electives: CPT or other Dept. (choose from list below) - Advisor approved	3
___ ___	Electives: CPT or other Dept. (choose from list below) - Advisor approved	3
___ ___	Elective: Mathematics/Science - Advisor approved	3-4
___ ___	Elective: Social Science - Advisor approved	3

Total Credit Hour Requirements 63-64

Computer Technology Electives

CPT 166	Fundamentals of Structured Query Language
CPT 202	Advanced Linux
CPT 208	Routers for Beginners
CPT 210-213:	Cisco Articulation Agreements
CPT 230	Field Experience (Internship)
CPT 236	Introduction to TCP/IP
CPT 238	Network Support and Trouble Shooting
CPT 240	Advanced Visual Basic
CPT 245	Introduction to Java Programming
CPT 248	Introduction to PERL/CGI Programming
CPT 250	Programming in "C"
CPT 253	Advanced Web Development
CPT 256	Introduction to Game Level Design
CPT 257	Advanced Level Design

Computer Technology (CPT)

Program Educational Outcomes

Upon completion of the Computer Technology program, the graduate of either the Associate in Science or the Associate in Applied Science is prepared to:

1. Demonstrate sufficient understanding of computing technologies and terminology for entry level employment.
2. Communicate clearly using written, verbal, and electronic means.
3. Practice good work habits and attitudes which include responsibility, cooperation, and teamwork.
4. Analyze problems and take corrective action to maintain information technology systems.
5. Continue their education either formally through upper division classes or through other educational opportunities.
6. Realistically analyze career opportunities vs. individual strengths and make sound career path decisions.
7. Define and develop an "area of expertise" within the context of information technology.

Distribution of A.S. Degree Credit Hour Requirements

Humanities and Social Science - 18 (29%)

COM 101 or 121; ENG 101, 201; INS 101; PHI 101; and one Social Science elective

Mathematics/Science - 12 (19%)

MAT 102, 122 or 125, 135 and one elective

Concentration - 33 (52%)

BCA 152, 246; CPT 130, 147, 201, 225, 235, 252, 266 and three CPT/other department electives

Distribution of A.A.S. Degree Credit Hour Requirements

Humanities and Social Science - 15 (24%)

COM 101 or 121; ENG 101, 201; HUM elective; and one Social Science elective

Mathematics/Science - 9 (15%)

MAT 102, 122, or 125 and one Math or Science Elective

Concentration - 39 (61%)

BCA 152; CPT 130, 147, 201, 236, 266, 272 and five CPT/other department electives

Other Department Electives

BCA 246 Database Management
 BUS 101 Small Business Management
 ELT 111 Electricity I
 ELT 153 Digital Logic
 ELT 167 Data Telecommunications
 GAT 108 Introduction to Acrobat Professional
 GAT 176 Photoshop I
 GAT 177 Photoshop II
 LER 150 Information Technology
 PHI 101 Critical Thinking

Computer Technology Electives (Con't.)

CPT 271 Network Security
 CPT 285 Senior Networking Capstone Project
 CPT 296 Topics in Information Technology

Associate in Applied Science Degree Requirements

Semester I

BCA 152	Integrated Software Applications	3
COM ____	Select one of the following:	3
	COM 101 Interpersonal Communication	
	COM 121 Group Process	
CPT 147	Introduction to PC Repair/OS	3
CPT 252	Web Development	3
ENG 101*	College Writing**	3

Semester II

CPT 130	Introduction to Visual BASIC	3
CPT 201	Linux	3
CPT 235	Introduction to Networking	3
MAT 102*	Numbers and Logic	3
____	Elective: CPT or other Dept. (<i>choose from list below</i>) - Advisor approved	3

Semester III

CPT 266	Server Administration	3
ENG 201	Technical Writing	3
MAT ____	Select one of the following:	3
	MAT 122* College Algebra	
	MAT 125 Finite Mathematics	
____	Elective: CPT or other Dept. - Advisor approved	3
____	Elective: CPT or other Dept. - Advisor approved	3

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

Semester IV

CPT 272	MS Exchange/IIS	3
____	Electives: CPT or other Dept. (<i>choose from list below</i>) - Advisor approved	3
____	Electives: CPT or other Dept. (<i>choose from list below</i>) - Advisor approved	3
____	Elective: Humanities - Advisor approved	3
____	Elective: Mathematics/Science - Advisor approved	3
____	Elective: Social Science - Advisor approved	3

Total Credit Hour Requirements 63

Computer Technology Electives

CPT 166 Fundamentals of Structured Query Language
 CPT 202 Advanced Linux
 CPT 208 Routers for Beginners
 CPT 210-213: Cisco Articulation Agreements
 CPT 230 Field Experience (Internship)
 CPT 236 Introduction to TCP/IP
 CPT 238 Network Support & Trouble Shooting
 CPT 240 Advanced Visual Basic
 CPT 245 Introduction to Java Programming
 CPT 248 Introduction to PERL/CGI Programming
 CPT 250 Programming in "C"
 CPT 256 Introduction to Game Level Design
 CPT 257 Advanced Game Level Design

Construction Safety and Health (CHS)

Program Description

The certificate program in Construction Safety and Health will prepare graduates for employment in the construction safety and health field. These graduates will work independently or as part of a team to make the construction workplace safer and healthier by identifying workplace hazards and possible ways to address these hazards through engineering solutions, administrative work practices, and the training and education of workers in safe and healthy work practices.

Career Opportunities

Employment opportunities are also found in areas such as insurance companies, government agencies, as well as with consulting firms.

Certificate Requirements

Semester I		Credit Hours
ENG 101*	College Writing	3
OHS 101	Basic Principles of Occupational Health	3
OHS 115	Basic Principles of Construction Safety and Health	3
Semester II		
OHS 126	Legal Rights and Responsibilities	3
OHS 216	Worksite Evaluation	3
— —	Elective: Mathematics	3
	MAT 050* - Algebra I <u>or</u>	
	MAT 122* - College Algebra or Advisor approved	
Semester III		
OHS 221	Emergency Planning and Response	3
— —	Elective - Advisor approved	3
Semester IV		
OHS 293	Construction Safety and Health Management	3
— —	Elective - Advisor approved	3
*Course placement determined by assessment test scores and/or prior college course work.		
Total Credit Hour Requirements		30

Criminal Justice (CRJ)

Program Description

The Associate in Applied Science (AAS) 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 detectives and criminal investigators, correctional officers and jailers, 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, jail transport officers.

Program Educational Outcomes

Upon completion of the Associate in Applied Science Degree in the Criminal Justice Program, 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.
6. Be a responsible member of society and the workforce, applying knowledge skills and abilities, ultimately, for the betterment of one's local community.

(Continued on next page.)

Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ENG 101*	College Writing	3
CRJ 101	Introduction to Criminal Justice	3
COM 101	Interpersonal Communication	3
MAT 100*	Intermediate Algebra <u>or</u> MAT 102 Numbers and Logic <u>or</u> MAT 135 Statistics	3
POS 150	American Politics <u>or</u> POS 151 American State and Local Government	3
<i>*Course placement determined by assessment test scores and/or prior college course work.</i>		
Semester II		
BIO 101	General Biology (Lec.)	3
BIO 102	General Biology (Lab)	1
PSY 101	Introduction to Psychology	3
CRJ 110	Introduction to Corrections	3
CRJ 122	Criminal Law	3
PHI 101	Critical Thinking	3
Semester III		
POS 2XX	Criminology	3
PHI 111	Ethics	3
CRJ 2XX	Criminal Investigation and Report Writing	3
CRJ 296	Special Topics	3
CRJ 2XX	Police Operations	3
Semester IV		
CRJ 2XX	Constitutional Law	3
CRJ 2XX	Race and Ethnicity Issues in Law Enforcement	3
CRJ 2XX	Independent Study <u>or</u>	3
CRJ 2XX	Internship <u>or</u> CRJ 296 Special Topics	3 or 6
CRJ 2XX	Criminalistics	3
___ ___	Open Elective	3
Total Credit Hour Requirements		61

**MAT 135 is a preferred transfer requirement.

Distribution of A.A.S. Credit Hour Requirements: Criminal Justice

Math/science - 7 (11%)

Social science/humanities - 18 (30%)

Prerequisites: H.S. diploma or GED

Criminal Justice Computer Forensics Option

Associate in Applied Science Degree Requirements ~ Computer Forensics Option

Semester I	Credit Hours
ENG 101* College Writing	3
CRJ 101 Introduction to Criminal Justice	3
COM 101 Interpersonal Communication	3
MAT 100* Intermediate Algebra <u>or</u>	3
MAT 102 Numbers and Logic <u>or</u>	
MAT 135** Statistics	
CPT 147 Personal Computer Repair	3

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

Semester II	Credit Hours
BIO 101 General Biology (Lec.)	3
BIO 102 General Biology (Lab)	1
PSY 101 Introduction to Psychology	3
CPT 225 Advanced PC Repair	3
CRJ 122 Criminal Law	3
CPT 235 Introduction to Networking	3

Semester III	Credit Hours
POS 2XX Civil Liberties	3
PHI 111 Ethics	3
SOC 210 Crime and Deviance	3
CPT 271 Network Security	3
CPT 266 Server Administration	3

Semester IV	Credit Hours
CPT 238 Network Trouble Shoot 3	
_____ Open Elective	3
CRJ/CPT Elective: Restricted	3
CRJ/CPT Elective: Restricted	3
CRJ/CPT Elective: Restricted	3

Total Credit Hour Requirements **61**

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

Distribution of A.A.S. Credit Hour Requirements: Criminal Justice/Computer Forensic Option

Math/science - 7 (11%)

Social science/humanities - 12 (20%)

Option - 18 (30%)

Culinary Arts (CUA)

Program Description

The Culinary Arts Program is a one year Certificate program that prepares students for employment in a variety of commercial food preparation positions in the food service, resort or hospitality industries. Through a combination of classroom instruction and assigned experiences in the program's kitchen and dining room facilities, students acquire fundamental skills in food preparation, kitchen sanitation, food presentation and good service practice. In addition, they gain knowledge about proper nutrition, menu planning, food purchasing and safe food storage techniques.

Students may enroll on a full or part-time basis and may take some courses in the day, evening, or both, depending upon availability. Students enrolled for full-time course work usually need one academic year to complete the Certificate. Part-time student may need several semesters to complete the program requirements.

Students who successfully complete the CMCC Certificate curriculum have the opportunity to earn an Associate in Applied Science Degree in the Business Administration and Management program with a concentration in Hospitality Management. All academic credit earned in the Certificate program will transfer into the Associate Degree program. Students who successfully complete the course Food Preparation Sanitation are eligible to sit for the National Restaurant Association Educational Foundation's (NRAEF) certification examinations (Serve Safe).

Career Opportunities

Graduates of the program typically obtain employment as cooks, cook's helpers and assistant bakers in restaurants or other institutions where operations include food service, such as schools, hospitals, and nursing homes.

Program Educational Outcomes

Upon completion of the Culinary Arts Program, the graduate is prepared to:

1. Recognize the importance of keeping the facilities clean and sanitized according to Maine and National Sanitation Safety Codes.
2. Apply safety standards related to the food service industry.
3. Prepare and present with knowledge, varied formulas covering soups, sauces, meats, vegetables, breakfast and bakery items.
4. Demonstrate knowledge and understanding of weights and measures, equipment usage and cooking terminology.
5. Assume professional and ethical responsibility in the food service industry.
6. Collaborate with other members and staff in planning and providing service in the food industry.
7. Recognize, evaluate and solve problems within the delivery of food service.
8. Communicate effectively in the practice of the food service industry.
9. Recognized the importance for continued education growth in the food service industry such as participation in a related professional organization.

Certificate Requirements

Semester I		Credit Hours
BUS 100	Understanding Business	3
CUA 101	Principles of Cooking	4
CUA 111	Introduction to Baking	4
CUA 121	Food Preparation Sanitation	3
ENG 101*	College Writing**	3
Semester II		
CUA 153	Quantity Food Production	5
CUA 163	Desserts and Pastries	5
CUA 171	Nutrition and Food Quality	3
CUA 179	Food Purchasing	1
MAT 101*	Business Mathematics**	3

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

Total Credit Hour Requirements 34

**Note: Students who successfully complete the Certificate requirements may transfer all credit hours into the Business Administration and Management program and earn an Associate in Applied Science Degree with a concentration in Hospitality Management provided that they earn a grade of C (not C-) or better in College Writing (ENG 101) and Business Mathematics (MAT 101).

Early Childhood Education (ECE)

Program Description

The Early Childhood Education (ECE) 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.

Currently, there are three ECE program options: Certificate, Associate in Science, and Associate in Applied Science (this option is for individuals who are participating in the Maine DOL Apprenticeship Program). Students take a combination of ECE courses and General Education courses to meet the requirements of any of the program options. Students may enroll on a part or full time basis, taking the amount of time they need to complete the program requirements. Students should meet with their Academic Advisor prior to the start of each semester to set up a schedule that realistically meets their time and commitment capabilities.

ECE courses combine the understanding and application of theory to practical experiences working directly with young children, ages newborn through early school age. Students in degree programs must successfully complete all supervised practicum work in approved early childhood settings.

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

As a result of these requirements, students may be required to have a record of SBI (State Bureau of Identification) and a child protective report 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.

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:

Upon completion of either the Associate in Science or Associate in Applied Science Early Childhood Education Program, the graduate is prepared to:

1. Recognize and maintain all required health and safety policies and practices in programs for young children.
2. Apply theories of child development to plan inclusive, developmentally appropriate curriculum and environments for children in care who are between 6 weeks - 8 years.
3. Demonstrate positive, supportive interactions with young children that clearly reflect the student's understanding of their social-emotional development and well-being.

(Continued on next page)

Associate in Science Degree Requirements

Semester I	Credit Hours
ECE 100 Introduction to Early Care and Education	3
ENG 101* College Writing	3
PSY 114 Child Development	3
SOC 220 Sociology of the Family	3
___ ___* Elective: Mathematics - Advisor approved	3

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

Semester II	Credit Hours
ECE 105 Infant and Toddler Curriculum	3
ECE 107 Infant and Toddler Practicum	1
ECE 150 Language and Literacy for Young Children	3
PSY 101 Introduction to Psychology	3
___ ___ Elective: Communication - select one of the following:	3
COM 100 Public Speaking	
COM 101 Interpersonal Communication	
___ ___ Elective: Mathematics - Advisor approved	3

Semester III	Credit Hours
ECE 113 Curriculum & Environments for Young Children	3
ECE 114 Young Children Practicum	2
ECE 205 Education of Children with Special Needs	3
___ ___ Elective: Laboratory Science - Advisor approved	4
PSY 210 Behavior Analysis and Management	3

Semester IV	Credit Hours
ECE 210 Issues in Early Care and Education	3
ECE 230 Practicum Capstone	6
___ ___ Elective: Humanities - Advisor approved	3
___ ___ Elective: Mathematics/Science - Advisor approved	3-4
___ ___ Elective: Advisor approved	3

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.

Total Credit Hour Requirements 64-65

Distribution of A.S. Degree Credit Hour Requirements

Humanities and Social Science - 21 (33%)

COM 100 or 101; ENG 101; PSY 101, 114, 210; SOC 220, one Humanities elective

Mathematics and/or Science - 13-14 (20%)

Mathematics - 2 electives, 1 Lab Based Science, and one Math/ Science elective

Concentration - 27 (43%)

ECE 100, 105, 107, 113, 114, 150, 205, 210, 230

Electives -3 (4%)

Prerequisites: H.S. diploma or GED, basic computer skills.

Early Childhood Education (ECE)

4. Describe the benefits of positive, respectful partnerships with diverse families.
5. Understand and demonstrate commitment to NAEYC's code of ethical conduct, and to standards of professional practice with children and adults.
6. Begin to assess young children's ongoing developmental and cultural needs to be able to individualize curriculum and teaching strategies.
7. Articulate a professional philosophy of early childhood education, using appropriate terminology and respect for diversity.
8. Work as part of an early childhood education team, using clear communication and professional skills to plan and manage programs for young children.

Practicum Requirements

In addition to meeting the admission requirements of the College, Early Childhood students must provide the following before the start of their first Practicum course:

1. A signed CMCC Student Disclosure and Consent form.
2. Demonstration of social and emotional stability and maturity.
3. Arrangements for providing one's own transportation to and from practicum settings that take place in a wide geographic area and in a variety of settings.

Certificate Requirements

Semester I	Credit Hours
ECE 100 Introduction to Early Care and Education	3
ECE 105 Infant and Toddler Curriculum	3
ECE 107 Infant and Toddler Practicum	1
ECE 113 Curriculum and Environments for Young Children	3
ECE 114 Young Children Practicum	2
Semester II	
ENG 101* College Writing	3
___ ___ Elective: Mathematics	3
PSY 114 Child Development	3
___ ___ Elective: Social Science - select one	3
of the following:	
PSY 101 Introduction to Psychology	
SOC 220 Sociology of the Family	
___ ___ Elective: Communication - select one	3
of the following:	
COM 100 Public Speaking	
COM 101 Interpersonal Communication	
___ ___ Elective: Humanities - Advisor approved	3

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

Total Credit Hour Requirements 30

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.

Associate in Applied Science Degree Requirements

Semester I	Credit Hours
BUS 101 Small Business Management	3
ECE 100 Introduction to Early Care and Education	3
ENG 101* College Writing	3
PSY 114 Child Development	3
___ ___* Elective: Mathematics - Advisor approved	3
Semester II	
ECE 105 Infant and Toddler Curriculum	3
ECE 107 Infant and Toddler Practicum	1
ECE 150 Language and Literacy for Young Children	3
MAT 101* Business Mathematics	3
___ ___ Elective: Communication - Select one	3
of the following:	
COM 100 Public Speaking	
COM 101 Interpersonal Communication	

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

Semester III	Credit Hours
ECE 113 Curriculum & Environments for Young Children	3
ECE 114 Young Children Practicum	2
ECE 205 Education of Children with Special Needs	3
___ ___ Elective: Mathematics/Science - Advisor approved	3-4
___ ___ Elective: Social Science - select one	3
of the following:	
PSY 101 Introduction to Psychology	
SOC 220 Sociology of the Family	

Semester IV	Credit Hours
ECE 230 Practicum Capstone	6
ECE 199 Apprenticeship (Documented and Evaluated)	12
___ ___ Elective: Humanities - Advisor approved	3

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.

Total Credit Hour Requirements 63-64

Distribution of A.A.S. Degree Credit Hour Requirements

Humanities and Social Science - 15 (24%)

COM 100 or 111; ENG 101; PSY 101 or SOC 220, PSY 114; and one Humanities elective

Mathematics and/or Science - 9-10 (14%)

MAT 101; one Math elective and one Math/Science elective

Concentration - 39 (62%)

ECE 100, 105, 107, 113, 114, 150, 199, 205, 230.

Education (EDU)

Program Description

The Education program at Central Maine Community College is designed to prepare graduates to work in educational support positions under the supervision of professional educators. The **Associate in Applied Science in Education** prepares graduates for employment as Ed Techs (as defined by the State of Maine, Department of Education). Under the supervision of other professionals, graduates will be able to implement, evaluate and modify academic support activities for children.

The **Associate in Science in Education** prepares graduates for educational support positions. Graduates will be prepared to work in learning environments supporting professional educators in the teaching/ learning process. Under the supervision of other professionals, graduates will be able to implement, evaluate and modify academic support activities in learning environments.

The **Certificate in Education** prepares graduates for entry level employment as an Ed Tech I (as defined but the State of Maine, Department of Education). Graduates will be prepared to work in learning environments providing limited support to the teaching/ learning process. Under the supervision of other professionals, graduates will be able to implement, academic support activities. Academic instruction will prepare graduates to meet minimum professional standards and authorization requirements.

Course Requirements

Graduates are required to achieve a grade of "C" or better in all education courses.

Program Educational Outcomes

Upon successful completion of the Education program graduates will be able to:

1. Describe the role, career path and regulations governing education professionals.
2. Demonstrate the interpersonal and communication skills required for successful employment in public and private schools.
3. Analyze data and contextual information to achieve desired educational outcomes.
4. Apply critical thinking and problem solving techniques to educational environments.

Program Notification

All applicants are advised that graduates seeking employment in this field may be required to meet additional licensing requirements, which may include, but are not limited to, background checks, finger printing and an SBI (State Bureau of Identification) record on file with the employer or appropriate agency.

Pre-Registration Requirements

In addition to meeting the general admission requirements of the College, applicants to this program may be asked to submit three references, written by non-family members, documenting ability, character and suitability to work with children and/or young adults.

Associate in Science Degree Requirements

Semester I		Credit Hours
EDU 101	Introduction to Education	3
ENG 101*	College Writing	3
___ ___	Elective: Science - Advisor approved	3
___ ___*	Elective: Mathematics - 100 level or higher - Advisor approved	3
PSY 111	Developmental Psychology	3
<i>*Course placement determined by assessment test scores and/or prior college course work.</i>		
Semester II		
EDU 155	Psycho/Social Needs of Students	3
EDU 185	Fundamentals of Educating Students with Special Needs	3
PSY 101	Introduction to Psychology	3
___ ___	General Elective - Advisor approved	3
___ ___	Elective: Communication - select one of the following: COM 100 Public Speaking COM 101 Interpersonal Communication	3
Semester III		
EDU 161	Technology in Education	3
EDU 261	Fundamentals of Literacy Education	3
___ ___	General Elective - Advisor approved	3
___ ___	Elective: Mathematics - Advisor approved	3
___ ___	Elective: Science (with lab) - Advisor approved	4
Semester IV		
EDU 271	Fundamentals of Mathematics Education	3
EDU 285	The Theory and Practice of Educational Support	3
SOC 200	Issues in Diversity	3
SOC 220	Sociology of the Family	3
___ ___	Elective: Humanities - Advisor approved	3
Total Credit Hour Requirements		61

Distribution of A.S. Degree Credit Hour requirements

Humanities and Social Science - 21 (34.4%)

COM 101 or 111; ENG 101; PSY 101, 111; SOC 200, 220; and one Humanities elective

Mathematics and/or Science - 13 (21.2%)

Two Math electives and two Science electives

Concentration - 21 (34.4%)

EDU 101, 155, 161, 185, 261, 271 and 285

Elective - 6 (10%)

Two General Education electives

(Continued on next page.)

Education (EDU)

Associate in Applied Science Degree Requirements

Semester I	Credit Hours
BCA 120 Introduction to Computer Applications	3
EDU 101 Introduction to Education	3
ENG 101* College Writing	3
___ ___ Elective: Psychology - select one of the following:	3
PSY 111 Developmental Psychology	
PSY 114 Child Development	
___ ___* Elective: Mathematics - 100 level or higher - Advisor approved	3
<i>*Course placement determined by assessment test scores and/or prior college course work.</i>	
Semester II	
EDU 185 Fundamentals of Educating Students with Special Needs	3
PSY 101 Introduction to Psychology	3
___ ___ General Elective - Advisor approved	3
___ ___ Elective: Communication - select one of the following:	3
COM 100 Public Speaking	
COM 101 Interpersonal Communication	
___ ___ Elective: Mathematics - 100 level or higher - Advisor approved	3
Semester III	
EDU 155 Psycho/Social Needs of Students	3
EDU 261 Fundamentals of Literacy Education	3
PSY 210 Behavior Analysis and Management	3
SOC 200 Issues in Diversity	3
___ ___ Elective: Humanities - Advisor approved	3
Semester IV	
EDU 161 Technology in Education	3
EDU 271 Fundamentals of Mathematics Education	3
EDU 285 The Theory and Practice of Educational Support	3
SOC 220 Sociology of the Family	3
___ ___ Elective: Science - Advisor approved	3-4
Total Credit Hour Requirements	60-61

Certificate Requirements

Semester I	Credit Hours
EDU 101 Introduction to Education	3
ENG 101* College Writing	3
EDU 271 Fundamentals of Mathematics Education	3
___ ___* Elective: Mathematics - 100 level or higher - Advisor approved	3
PSY 111 Developmental Psychology	3
<i>*Course placement determined by assessment test scores and/or prior college course work.</i>	
Semester II	
EDU 185 Fundamentals of Educating Students with Special Needs	3
EDU 261 Fundamentals of Literacy Education	3
EDU 285 The Theory and Practice of Educational Support	3
SOC 220 Sociology of the Family	3
___ ___ Elective: Communication - select one of the following:	3
COM 100 Public Speaking	
COM 101 Interpersonal Communication	
Total Credit Hour Requirements	30

Distribution of A.A.S. Degree Credit Hour requirements

Humanities and Social Science - 21 (35%)

COM 101 or 111; ENG 101; PSY 101, PSY 111 or 114, 210; SOC 200, 220;
one Humanities elective; and one Social Science elective

Mathematics and/or Science - 12-13 (20%)

Two Math electives and one Science elective

Concentration - 24 (40%)

BCA 120; EDU 101, 155, 161, 185, 261, 271 and 285

Elective - 3 (5%)

One Elective

Electromechanical Technology (ELT)

Program Description

The Electromechanical Technology program 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 program has been approved by the State of Maine Electricians' Licensing Board to provide courses that meet the requirements of the Master, Journeyman, and Limited licensing law. The award of a Certificate may be earned with program concentrations in Electromechanical Technology, Electrician Licensing, Electronics, Industrial Electricity, Instrumentation and Robotic Technology (see details on the pages that follow). Students may enroll on a full or part-time basis and may take some courses in the day, evening, or both, depending upon availability. Students enrolled for full-time course work usually need one academic year to complete the Certificate. Part-time students may need several semesters to complete the program requirements.

Upon graduation, students qualify for entry level positions as: electro-mechanical technicians, electrical/electronic technicians, electricians, engineering assistants, instrument technicians, maintenance 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.

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.

(Continued on next page)

Associate in Applied Science Degree Requirements

Semester I		Credit Hours
ELT 111	Electricity I	4
ELT 123	Electrical Controls I	3
ELT 153	Digital Logic	3
MAT ____	MAT 100* Intermediate Algebra <u>or</u> MAT 122 College Algebra	3
____	Elective: Humanities - Advisor approved	3
Semester II		
ELT 112	Electricity II	4
ELT 145	Electronic Devices I	3
ENG 101*	College Writing	3
TET 201	Telecommunications I	3
____	Elective: (MAT 105 or higher) - Advisor approved	3
____	Elective - Advisor approved	3
<i>*Course placement determined by assessment test scores and/or prior college course work.</i>		
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 - Advisor approved	3-4
Semester IV		
ELT 222	Programmable Controls	3
ELT 232	Process Control	3
ELT 246	Linear Integrated Electronics	3
ELT 275	Robotics and Control Systems	2
ENG 201	Technical Writing	3
____	Elective: Social Science - Advisor approved	3
<i>ELT 296 Independent Study (in place of applicable ELT course requirements) is an option available for up to 6 credit hours in the second year, subject to approval by the Department Chairperson and the Faculty Advisor. See Course Description section of this catalog.</i>		
Total Credit Hour Requirements		67-68

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 12 (18%)

ENG 101, 201, one Humanities elective and one Social Science elective.

Mathematics and/or Science - 9 (14%)

MAT 100 or 122, MAT elective (105 or above), MAT/SCI elective.

Concentration - 43 (64%)

ELT 111, 112, 123, 145, 153, 221, 222, 231, 232, 245, 246, 271, 275 and TET 201.

Elective - 3 (4%)

Prerequisites: Algebra I (Algebra II preferred)

Electromechanical Technology (ELT)

- | | |
|---|---|
| <p>5. Compute operating voltages and currents for electrical and electronic circuits.</p> <p>6. Select and utilize test equipment to measure electrical quantities and troubleshoot circuits.</p> <p>7. Design and hook up control systems found in Process Control</p> | <p>8. Employ personal computer skills to operate technical application software and set up networking.</p> <p>9. Demonstrate a commitment to life-long learning through formal education, on-the-job inservice or through independent participation in other technical/trade resources.</p> |
|---|---|

Certificate Requirements

Core Requirements

	Credit Hours
BCA 120 Introduction to Computer Applications	3
ELT 111 Electricity I	4
ENG101* College Writing	3
MAT 100* Intermediate Algebra	3
ELT 245 Electronic Devices I	3

Total Core Credit Requirements **13**

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

Certificate Concentrations

Concentrations include Core Requirements above as well as one of the following selections:

Concentration in Electrician Licensing

These courses have been approved by the State of Maine Electricians' Licensing Board to meet the requirements of the Master, Journeyman, and Limited licensing law.

ELT 102 Electric Motors	2
ELT 103 Residential Controls	2
ELT 104 Blueprint Reading and Estimation	2
ELT 105 Commercial Wiring and Transformers	2
ELT 107 Industrial Motor Controls	2
ELT 108 Basic Electronics	2
ELT 109 National Electrical Code I	2
ELT 112 Electricity II	4

Total Credit Hour Requirements (core plus concentration courses) **31**

Concentration in Industrial Electricity

ELT 112 Electricity II	4
ELT 123 Electrical Controls I	3
ELT 126 Electrical Controls II	2
ELT 153 Digital Logic	3
ELT 221 Industrial Controls	3
ELT 222 Programmable Controls	3

Total Credit Hour Requirements (core plus concentration courses) **31**

Concentration in Electronics

ELT 112 Electricity II	4
ELT 145 Electronic Devices I	3
ELT 153 Digital Logic	3
ELT 245 Electronic Devices I	3
ELT 246 Linear Integrated Circuits	3

Total Credit Hour Requirements (core plus concentration courses) **29**

Concentration in Instrumentation

ELT 112 Electricity II	4
ELT 145 Electronic Devices I	3
ELT 153 Digital Logic	3
ELT 231 Process Management	3
ELT 232 Process Control	3
ELT 245 Electronic Devices II	3
ELT 246 Linear Integrated Circuits	3

Total Credit Hour Requirements (core plus concentration courses) **35**

Concentration in Robotics

CPT 130 Introduction to Visual BASIC	3
ELT 153 Digital Logic	3
ELT 211 Control Systems	3
ELT 271 Industrial Robotics	3
ELT 275 Robotics and Control Systems	2
SCI 151 Hydraulics and Pneumatics Theory (Lec.)	2
SCI 152 Hydraulics and Pneumatics (Lab)	2

Total Credit Hour Requirements (core plus concentration courses) **31**

Concentration in Electromechanical Technology

_____ Technical Elective: Electromechanical	18
- Advisor approved	

Total Credit Hour Requirements (core plus concentration courses) **35**

General Studies (GEN)

Program Description

The Associate in Arts in General Studies degree program is designed for individuals who wish to explore different programs before deciding on a specific field of study. In addition, this program prepares students 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. Six additional credit hours selected from one of the core areas allows for the acquisition of further skills in a concentrated area. Courses taken as electives afford individuals an opportunity to explore a variety of academic disciplines or career fields.

In order to ensure optimal transfer of credits to upper division programs, students should work collaboratively with their academic advisor and the Director of Transfer/Advising 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 of the Associate in Arts in General Studies degree program the 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. Understand and utilize fundamental mathematical concepts.
4. Appreciate self as an individual in interaction with a biological/physical environment.
5. Think critically and link concepts across a variety of disciplines.
6. Conceptualize society as being culturally diverse within a global community.
7. Evaluate personal values, interests and education/career goals.

Associate in Arts Degree Requirements

Upon successful completion of the curriculum requirements (6061 credit hours), at a minimum cumulative grade point average (GPA) of 2.00, the student shall be awarded the Associate in Arts in General Studies degree.

Communication	9 Credit Hours
Required: ENG 101 College Writing	3
Select one course among the following:	3
ENG 131, 201, 211, 220, 221	
Select one course among the following:	3
COM 100, 101, or 121	
Mathematics and Science	10 Credit Hours
Required: MAT 132, 135, or 280	3
Select one course among the Lab Sciences:	4
BIO 101/102, BIO 115/116	
CHY 101/102	
PHY 121/122, PHY 142/143	
Select one Math or Science course at the 101 level or higher among the following:	3
AST 101	
BIO 105, 121, or 122	
GEO 101, 102	
MAT 101, 102, 105, 122, 125, 132, 135, or 280	
Humanities	9 Credit Hours
Select three courses (other than those listed in Communications area) among the following:	9
ART; ASL; ENG; ESL 102*; FRE; HUM; INS;	
MUS; PHI; SPA; or WST	
<i>Note: INS 101 Technology and Society fulfills Humanities or Interdisciplinary requirement</i>	
Social Science	9 Credit Hours
Select three courses listed among the following:	9
9 ECO; ESL 103*; GEY 101; HIS; POS; PSY; SOC; SSC	
Interdisciplinary	3 Credit Hours
Select one course among the following:	3
INS 101, INS 211, INS 251, INS 296	
MAT 102	
Core Concentration	6 Credit Hours
Select two courses from one of the following core areas:	6
Communication; Mathematics and Science; Humanities;	
Social Science; Technical	
Elective Courses (w/Advisor Endorsement)	14-15 Credit Hrs
Total Credit Hour Requirements	60-61

**For International Students Only*

Graphic Arts/ Printing Technology (GAT)

Program Description

Graphic Arts/Printing Technology is a program that offers students the option of earning a Certificate or an Associate in Applied Science degree. An intensive group of foundation courses introduces the total production process from design and desktop publishing, through press work and bindery operations, and prepares students for the broad range of employment opportunities available in the printing industry. A balance of classroom study and practical application assures the development of a solid theoretical background, good production skills and appropriate work attitudes. Through the completion of assigned production projects, students become proficient in the operation of equipment and performance standards common to the industry. For students choosing the two-year program, an industrial internship provides supervised on-the-job training. The Graphic Arts/Printing Technology program first earned national accreditation in 1993 and meets the PrintED accreditation standards of the Graphic Arts Education and Research Foundation (GAERF), 1899 Preston White Drive, Reston, VA 20191-4367, telephone (703) 264-7200. The program is accredited January 2006 through 2013. Visit our web page at www.cmcc.edu/gat.

Career Opportunities

Graduates of this program may pursue careers in digital prepress, design and layout, desktop publishing, imaging and camerawork, digital imposition, proofing and computer to plate (CTP) platemaking, litho and duplicator presswork, letterpress operations, screen printing, bindery and finishing work. Each student has opportunity to focus his/her studies in prepress or press/bindery career areas. Employment may be found in small printing shops, large printing plants or in the graphic arts departments of companies that publish materials in-house.

Program Outcomes

Upon completion of the Associate in Applied Science in the Graphic Arts/Printing Technology Program, the graduate is prepared to:

1. Employ the specific skills and good work habits that are required in today's Printing Industry.
2. Using the team approach, analyze, plan and safely produce quality printed products within a production setting as recommended by PrintED standards.
3. Clearly communicate with customers and other team members utilizing written, verbal and/or electronic means.
4. Participate in continuing education either formally through credit coursework, or through other education opportunities such as in-service or industrial association activities.

(Continued on next page.)

Distribution of A.A.S. Credit Hour Requirements in Prepress Area of Concentration

Humanities and Social Science - 12 (17.7%)

COM 100 or ENG 201, ENG 101; one Humanities elective; and one Social Science elective

Mathematics and/or Science - 9-10 (13.2%)

MAT 101, and two Mathematics/Science electives

Concentration - 44 (64.7%)

GAT 100, GAT 104, 105, 111, 113, 131, 155, 176, 281, 285, 292 (or 293), and two GAT electives

Elective - 3 (4.4%)

Distribution of A.A.S. Credit Hour Requirements in Press/Bindery Concentration

Humanities and Social Science - 12 (17.1%)

COM 100 or ENG 201, ENG 101; one Humanities; and one Social Science elective

Mathematics and/or Science - 9-10 (12.9%)

MAT 101, and two Mathematics/Science electives

Concentration - 46 (65.7%)

GAT 100, 104, 105, 111, 131, 132, 141 or 151, 281, 286, 233, 234, 235, 293, or 294 and one elective

Elective - 3 (4.3%)

Prerequisite: Basic computer skills

Graphic Arts/ Printing Technology (GAT)

Associate in Applied Science Degree Requirements ~ Prepress Concentration

Semester I		Credit Hours	Semester II		Credit Hours
ENG101*	College Writing	3	GAT 113	Advanced Image Assembly	3
GAT 100	Introduction to Printing	2	GAT 155	Electronic Publication Design	3
GAT 104	Typography	1	GAT 176	Photoshop I	3
GAT 105	Digital Page Layout	2	_____	Elective: GAT - Advisor Approved	2
GAT 111	Offset Preparation	3	_____	Elective: Humanities - Advisor approved	3
GAT 131	Duplicator and Finishing Operations	3	_____	Elective: Mathematics/Science - Advisor approved	3-4
MAT 101*	Business Mathematics	3			
*Course placement determined by assessment test scores and/or prior college coursework.					
Semester III			Semester IV		
GAT 281	Intro to Printing Estimating	3	_____	Elective: GAT - Select one of the following	12
GAT 285	Production Experience	6		GAT 292 Industrial Experience (in house)	
_____	Elective: GAT - Advisor Approved	2	_____	GAT 293 Industrial Experience (field)	
_____	Elective: Communication - select one	3	_____	Elective: Mathematics/Science - Advisor approved	3-4
	of the following:		_____	Elective: Social Science - Advisor approved	3
	ENG 201 Technical Writing				
	COM 100 Public Speaking				
	COM 101 Interpersonal Communications				
_____	Elective - Advisor approved	3			
Total Credit Hour Requirements					69-71

Associate in Applied Science Degree Requirements ~ Press/Bindery Concentration

Semester I		Credit Hours	Semester II		Credit Hours
ENG101*	College Writing	3	GAT 132	Advanced Duplicator Operations	3
GAT 100	Introduction to Printing	2	_____	Elective: GAT - select one of the following:	2
GAT 104	Typography	1		GAT 141 Letterpress Printing	
GAT 105	Digital Page Layout	2		GAT 151 Screen Printing	
GAT 111	Offset Preparation	3	_____	Elective: GAT - Advisor approved	3
GAT 131	Duplicator and Finishing Operations	3	_____	Elective: Humanities - Advisor approved	3
MAT 101*	Business Mathematics	3	_____	Elective: Mathematics/Science - Advisor approved	3-4
*Course placement determined by assessment test scores and/or prior college coursework.					
Semester III			Semester IV		
GAT 233	Litho Printing and Bindery Theory	2	_____	Elective: GAT - Select one of the following:	12
GAT 234	Litho Printing and Bindery Operations	2		GAT 293 Industrial Experience (field)	
GAT 281	Introduction to Printing Estimating	3		GAT 294 Industrial Experience (in house)	
GAT 286	Production Experience	6	_____	Elective: Mathematics/Science - Advisor approved	3-4
_____	Elective: Communication - select one	3	_____	Elective: Social Science - Advisor approved	3
	of the following:				
	ENG 201 Technical Writing				
	COM 100 Public Speaking				
	COM 101 Interpersonal Communications				
Total Credit Hour Requirements					68-70

GAT Electives

GAT 106 Design and Layout I (3 cr)
 GAT 108 Introduction to Acrobat Professional (3 cr)
 GAT 113 Advanced Image Assembly (3 cr)
 GAT 132 Advanced Duplicator Operations (3 cr)
 GAT 141 Letterpress Printing (2 cr)
 GAT 151 Screen Printing (2 cr)
 GAT 155 Electronic Publication Design (3 cr)

GAT 176 Photoshop I (3 cr)
 GAT 177 Photoshop II (3 cr)
 GAT 204 Design and Layout II (3 cr)
 GAT 218 Digital Photography and Imaging (3 cr)
 GAT 219 Introduction to New Media (3 cr)
 GAT 233 Litho Press and Bindery Theory (2 cr)
 GAT 296 Independent Study (Variable credit)

Graphic Arts/ Printing Technology (GAT)

Certificate Requirements ~ Prepress Concentration

Semester I		Credit Hours	Semester II		Credit Hours
ENG101*	College Writing	3	GAT 192	Production Experience: Prepress	6
GAT 100	Introduction to Printing	2	GAT 113	Advanced Image Assembly	3
GAT 104	Typography	1	GAT 155	Electronic Publication Design	3
GAT 105	Digital Page Layout	2	GAT 176	Photoshop I	3
GAT 111	Offset Preparation	3	Total Credit Hour Requirements		32
GAT 131	Duplicator and Finishing Operations	3			
MAT 101*	Business Mathematics	3			

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

Certificate Requirements ~ Press/Bindery Concentration

Semester I		Credit Hours	Semester II		Credit Hours
ENG101*	College Writing	3	GAT 193	Production Experience: Press/Bindery	6
GAT 100	Introduction to Printing	2	GAT 132	Advanced Duplicator Operations	3
GAT 104	Typography	1	GAT 141	Letterpress Printing <u>or</u>	2
GAT 105	Digital Page Layout	2		GAT 151 Screen Printing	
GAT 111	Offset Preparation	3	___	Elective: GAT - Advisor approved	4
GAT 131	Duplicator and Finishing Operations	3	Total Credit Hour Requirements		32
MAT 101*	Business Mathematics	3			

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

GAT Electives

GAT 106	Design and Layout I (3 cr)	GAT 176	Photoshop I (3 cr)
GAT 108	Introduction to Acrobat Professional (3 cr)	GAT 177	Photoshop II (3 cr)
GAT 113	Advanced Image Assembly (3 cr)	GAT 204	Design and Layout II (3 cr)
GAT 132	Advanced Duplicator Operations (3 cr)	GAT 218	Digital Photography and Imaging (3 cr)
GAT 151	Screen Printing (2 cr)	GAT 219	Introduction to New Media (3 cr)
GAT 155	Electronic Publication Design (3 cr)	GAT 233	Litho Press and Bindery Theory (2 cr)
		GAT 296	Independent Study (Variable credit)

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, developmental disabilities, child and adolescent services, and gerontology. The development of concentrations in each area may be explored in the future. Upon completion of the nine courses identified by a **double asterisk, 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 the first, second, third, and fourth semester courses 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 of the Associate Degree in Applied Science in Human Services Program, the graduate is prepared to:

1. Utilize knowledge of the basic counseling skills necessary to establish collaborative relationship 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 admission requirements of the College, applicants to this program must have had the following:

High school Algebra; Personal interview with the program coordinator

Pre-Registration 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 Program 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 HUS faculty advisor.

(Continued on next page)

Human Services (HUS)

Associate in Applied Science Degree Requirements

Semester I

Credit Hours

BIO 101	General Biology (Lec)	3
BIO 102	General Biology (Lab)	1
ENG 101**	College Writing	3
HUS 112*	Introduction to Community Mental Health	3
SOC 200*	Issues in Diversity	3
PSY 111	Developmental Psychology	3

Semester II

PSY 151*	Interviewing and Counseling	3
PSY 212*	Abuse, Trauma and Recovery	3
PSY 202*	Disabilities and Psychosocial Rehabilitation 3	
PSY 101	Introduction to Psychology	3
SOC 220	Sociology of Family	3
MAT ____**	Elective - 100 level or above	3

****After completing HUS 112, SOC 200, PSY151, PSY212, 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.***

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

Semester III

PSY 116	Psychology of Group Dynamics	3
PSY 204	Voc. Aspects of Disability and Voc. Rehabilitation Counseling	3
HUS 155	Case Management	3
PHI 101	Critical Thinking	3
MAT 135	Statistics	3
HUS 241	Human Services Practicum I	4

Semester IV

SOC 201	Sociology of Aging	3
HUS 153	Substance Abuse	3
COM 100	Public Speaking	3
HUS 251	Human Services Practicum II	4
____	Elective - Advisor Approved	3

Total Credit Hour Requirements: 66

MHRT/C CERTIFICATE COURSES IN ITALICS - Mental Health Rehabilitation Technician/Community - The certification given by the Muskie Institute which is the Maine State certification body for associate and some bachelor degree programs in Human Service. The board does give the certificate if the MINIMUM courses in italics are taken, however students are STRONGLY encouraged to complete the whole program.

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 36 (55.6%)

COM 100; ENG 101; PHI 101; PSY 101, 111, 116, 151, 202, 212; SOC 200, 201, 220

Mathematics and/or Science - 10 (15%)

BIO 101, 102; MAT 135 and one math elective

Concentration - 16 (24.2%)

HUS 112, 153, 155, 241, and 251

Elective - 3 (5%)

Liberal Studies (LIB)

Program Description

The Associate in Arts in Liberal Studies degree program 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. Six additional credit hours selected from one of the core areas allows for the acquisition of further skills in a concentrated area. 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 Transfer/Advising 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 of the Associate in Arts in Liberal Studies degree program, 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 Algebra I and II or equivalent

Associate in Arts Degree Requirements

Upon successful completion of the curriculum with a minimum grade point average (GPA) of 2.00, the student shall be awarded the Associate in Arts in Liberal Studies degree. Core areas of development prepare the student for upper division work at colleges and universities.

Communication 9 Credit Hours

Required: ENG 101 College Writing 3

Select one course among the following: 3

ENG 131, ENG 201, ENG 211, ENG 220, ENG 221, ESL 101*

Select one course among the following: 3

COM 100, COM 101, COM 121, COM 151

Mathematics and Science 10 Credit Hours

Required: MAT 132, MAT 135, or MAT 280 3

Select one course among the Lab Sciences: 4

BIO 101/102, BIO 115/116, BIO 117/118, BIO 211/212

CHY 101/102, CHY 111/112

PHY 121/122, PHY 142/143, PHY 221/222

Select one Math or Science course at the 101 level or higher among the following: 3

AST 101

BIO 105, 121, or 122

GEO 101, 102

MAT 101, 102, 105, 122, 125, 132, 135, or 280

Humanities 9 Credit Hours

Select three courses (other than those listed in Communications area) among the following: 9

ART; ASL; ENG; ESL 102*; FRE; HUM; INS; MUS; PHI; SPA;

or WST

Note: INS 101 Technology and Society fulfills Humanities or Interdisciplinary requirement

Social Science 9 Credit Hours

Select three courses listed among the following: 9

ESL 103*; ECO; GEY 101; HIS; PSY; SOC; SSC 110; or POS

Interdisciplinary 3 Credit Hours

Select one course among the following: 3

HUM 101; MAT 102; INS 296

Core Concentration 6 Credit Hours

Select two courses from one of the following core areas: 6

Communication; Mathematics and Science; Humanities;

Social Science

Elective Courses (w/ Advisor Endorsement) 14-15 Credit Hours

Note: A maximum of six credit hours may be taken outside of a General Education area.

Total Credit Hour Requirements 60-61

**For International Students Only*

Machine Tool Technology (MTT)

Program Description

The Machine Tool Technology program 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. The Machine Tool Technology Program is certified by the National Institute for Metalworking Skills (NIMS), a credential accepted nationally by employers. Through an Advanced Technological Education (ATE) grant from the National Science Foundation (NSF), students in this program have the opportunity to work with design students at colleges throughout the United States. The Virtual Ideation Platform or VIP uses a virtual environment to allow students to work concurrently in product design and development.

Currently there are two MTT program options: Associate in Applied Science and Certificate. Students may enroll on a full or part-time basis and may take courses in the day, evening, or both, depending upon availability. Students enrolled for full-time course work usually need two academic years to complete the associate degree. Part-time students may need several years to complete the program requirements.

Career Opportunities

Graduates of the Machine Tool 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 Associate in Applied Science in the Machine Tool Technology Program, the graduate is prepared to:

1. Demonstrate entry level skills utilizing conventional and computer numerical control equipment in a modern manufacturing setting.
 - A. Interpret engineering drawings utilizing current standards set by ANSI.
 - B. Produce a part that meets print specifications utilizing the appropriate measuring and gauging instruments to insure quality control.
2. Apply occupational health and safety standards related to the precision manufacturing Machine Tool Industry.
3. Integrate all learning experiences gained from general education courses to the practice of the precision manufacturing machine tool trade.
4. Demonstrate a commitment to life-long learning through formal education, on the job in-service or independent participation in other technical/trade resources.
5. Prepares the student for future leadership roles in a modern precision manufacturing machine shop environment.

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Associate in Applied Science Degree Requirements

Semester I		Credit Hours
BCA 120	Introduction to Computer Applications	3
MAT 100*	Intermediate Algebra	3
MTT 103	Print Reading and Sketching	3
MTT 111	Introduction to Lathes	2
MTT 115	Intro to Computer Numerical Control	2
MTT 116	Milling and Grinding	2
MTT 117	CNC Operations	2
Semester II		
ENG101*	College Writing	3
MAT 105	Geometry and Trigonometry	3
MTT 121	Introduction to Threading Processes	2
MTT 122	Work Holding Methods for Milling	2
MTT 123	Intermediate Grinding	2
MTT 124	Applied Computer Numerical Control	2
OHS102	OHS for General Industry	1
*Course placement determined by assessment test scores and/or prior college course work.		
Semester III		
ENG201	Technical Writing	3
MTT 211	Advanced Threading Processes	2
MTT 212	Circular Milling Processes	2
MTT 214	Advanced Computer Numerical Control	2
MTT 217	Introduction to Toolmaking	2
PHY 121	Technical Physics I (Lec.)	3
PHY 122	Technical Physics I (Lab)	1
— —	Elective: Social Science - Advisor approved	3
Semester IV		
MTT 204	Geometric Dimensioning and Tolerancing	1
MTT 221	Advanced Turning Processes	2
MTT 222	Advanced Milling Processes	2
MTT 227	Advanced Toolmaking Techniques	2
MTT 228	Metallurgy	1
MTT 229	Advanced CNC Part II	2
— —	Elective - Advisor approved	3-4
— —	Elective: Humanities - Advisor approved	3
Total Credit Hour Requirements		66-67

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Science - 12 (18.2%)

ENG 101, 201; one Social Science elective; and one Humanities elective.

Mathematics and/or Science - 10 (15.1%)

MAT 100, 105; PHY 121, 122.

Concentration - 41 (62.1%)

BCA 120; MECT 103; MTT 111, 115, 116, 117, 121, 122, 123, 124, 211, 212, 214, 217, 204, 221, 222, 227, 228, 229; and OHS 102.

Elective - 3 (4.6%)

Prerequisites: Algebra I

Machine Tool Technology (MTT)

Certificate Requirements

Semester I		Credit Hours
MAT 100*	Intermediate Algebra	3
MTT 103	Print Reading and Sketching	3
MTT 111	Introduction to Lathes	2
MTT 112	Introduction to Milling	2
MTT 113	Grinding I and Drilling	2
MTT 115	Introduction to Computer Numerical Control	2
Semester II		
BCA 120	Introduction to Computer Applications	3
ENG101*	College Writing	3
MTT 121	Introduction to Threading Processes	2
MTT 122	Work Holding Methods for Milling	2
MTT 123	Intermediate Grinding	2
MTT 124	Applied Computer Numerical Control	2
OHS102	OHS for General Industry	1
*Course placement determined by assessment test scores and/or prior college course work.		
Total Credit Hour Requirements		29

Medical Assistant (MEA)

Program Description

The Associate in Applied Science in Medical Assistant prepares the graduates of this program 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 Assistant Administrative Procedures, Medical Transcription, and Medical Assistant Clinical Procedures. Also, a 240-hour Externship will be required in semesters IV.

A grade of "C" or better in all Medical Assistant, Biology, and Business and Computer Applications courses, a cumulative GPA of 2.0 or better, completion of the first and second 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, medical secretary or transcriptionist, in a single or group practice of physicians, hospital, or public health facility, and other capacities requiring medical secretarial, medical assisting and office management skills.

Program Educational Outcomes

Upon completion of the Associate in Applied Science in Medical Assistant, the graduate is prepared to:

1. Be able to evaluate and perform medical office administrative procedures including records management, coding and claim filing.
2. Demonstrate the ability to understand and transcribe medical correspondence.
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. Obtain vital signs, patient history and instruct patients on treatments.
7. Prepare patients for routine or specialty examinations or procedures.
8. Assist 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.

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 third semester
- The program is designed for a fall start of the MEA courses

Associate in Applied Science Degree Requirements

Semester I		Credit Hours
BCA 101	Computer Keyboarding	3
BCA 120	Introduction to Computer Applications	3
BIO ____	Biology - select one of the following:	
	BIO 101 General Biology (Lec.)	3
	BIO 102 General Biology (Lab)	1
	or	
	BIO 115* Anatomy & Physiology I (Lec.)	3
	BIO 116* Anatomy & Physiology I (Lab)	1
MAT 101**	Business Math	3
MET 111	Medical Terminology I	3
Semester II		
BCA 121	Word Processing	3
BIO ____	Biology - select one of the following:	
	BIO 105 Essentials of Anatomy and Physiology	3
	or	
	BIO 117* Anatomy and Physiology II (Lec.)	3
	BIO 118* Anatomy and Physiology II (Lab)	1
ENG 101**	College Writing	3
MET 101	Medical Transcription I	4
COM 100	Public Speaking	3
*The BIO 115-118 series is the recommended choice for transfer to a bachelor degree program. Please note course prerequisites.		
**Course placement determined by placement test scores and/or prior college work.		
Semester III		
MEA 200	Medical Administrative Procedures	4
MEA 221	Medical Clinical Procedures I (Lab)	2
MEA 222	Medical Clinical Procedures I (Lec.)	3
MEA 224	Pharmacology for Medical Assistants	2
PSY 101	Introduction to Psychology	3
____	Elective: Humanities - Advisor Approved	3
____	Elective: BUS or BCA - Advisor Approved	3
Semester IV		
MEA 210	Insurance Coding/Claims Processing	3
MEA 230	Advanced Medical Clinical Procedures II (Lec.)	3
MEA 231	Advanced Medical Clinical Procedures II (Lab)	2
MEA 266	Medical Assistant Externship (240 hrs)	6
Total Credit Hour Requirements		63-64

Please Note: Students must provide own transportation to and from the externship sites. All Medical Assistant majors must follow the prescribed course sequence.

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 12 (20%)

COM 100; ENG 101; Humanities elective; and PSY 101

Mathematics and/or Science - 10-11 (16%)

MAT 101; BIO 115, 116, 117, 118 (or BIO 101, 102, 105)

Concentration - 41 (64%)

BCA 101, 120, 121; MEA 200, 210, 221, 222, 230, 231, 266; MET 101, 111; and one business elective

Medical Coding (MCO)

Program Description

The Certificate in Medical Coding 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.

Course Requirements

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

Program Educational Outcomes

Upon completion of the Certificate in Medical Coding program, the graduate is prepared to:

1. Demonstrate the ability to translate information from the medical record into standardized numerical codes accurately and in an efficient manner.
2. Demonstrate professional conduct and ethical behavior.
3. Demonstrate the ability to work with other members of the health care team.
4. Recognize factors that affect third-party reimbursement.

Certificate Requirements

Semester I		Credit Hours
MET 111	Medical Terminology	3
BCA 101	Computer Keyboarding	3
ENG 101*	College Writing**	3
MEA 210	Insurance Coding/Claim Processing ¹	3
Semester II		
BCA 120	Introduction to Computer Applications	3
MET 150	Medical Specialties I	3
MCO 121	Medical Diagnostic Coding (ICD 9)	3
Semester III		
MET 151	Medical Specialties II	3
MCO 125	Medical Procedural Coding	3
MAT 101*	Business Math	3
Total Credit Hour Requirements		30

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

***Students must earn a grade of C (not C-) or better in College Writing (ENG 101) in order to meet the Certificate requirements of this program.*

¹MEA 210 should be taken before MCO 121 and MCO 125

Medical Transcription (MET)

Program Description

The Medical Transcription (MET) Certificate Program offers students the opportunity to acquire job-entry skills in medical transcription, or to improve upon their existing skills. Several of the courses in this program can also be applied to other certificate or degree programs offered at Central Maine Community College.

Students may take courses during the day, evening or both, depending upon availability.

Full-time students who begin their studies in the fall semester can expect to complete the Certificate requirements in three semesters. Part-time students may require several semesters of course work.

Career Opportunities

Graduates of the program will be prepared to accept medical transcriptionist positions in hospitals, doctors' offices, home health care facilities, and companies providing transcription services. Additional education and experience can lead the graduate to further career opportunities in the medical field.

Pre-registration Requirements

In addition to meeting the general admission requirements of the College, applicants to this program must have average or better skills in mathematics, English, and spelling.

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

Certificate Requirements

Recommended Sequence of Course work

Semester I		Credit Hours
BCA 101	Computer Keyboarding	3
BCA 120	Introduction to Computer Applications	3
ENG 101*	College Writing**	3
MET 111	Medical Terminology	3
Semester II		
BCA 121	Word Processing	3
MET 101	Medical Transcription I	4
MET 150	Medical Specialties I	3
Semester III		
MAT 101*	Business Mathematics	3
MET 102	Medical Transcription II	4
MET 151	Medical Specialties II	3
Total Credit Hour Requirements		32

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

***Students must earn a grade of C (not C-) or better in College Writing (ENG 101) in order to meet the Certificate requirements of this program.*

Nursing (NUR)

Program Description

The Nursing program at CMCC is designed as a multiple entry/exit curriculum preparing individuals at both the Practical Nurse level and the Registered Nurse level.

Year one of the curriculum serves a dual purpose; by itself it meets the educational criteria for practical nursing but also serves as the first year of the two year Associate in Science (RN) degree program.

Upon application, the individual chooses to pursue the goal of either the Diploma (PN) or the Associate Degree (RN). Students in the diploma option exit at the completion of the first year and are eligible to sit for the National Council Licensing examination, for licensure as a Practical Nurse. Graduates in the associate degree program are eligible to sit for the National Council Licensing Examination, for licensure as a Registered Professional Nurse.

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."

To participate in the nursing program, students must complete clinical experiences at healthcare affiliates. These affiliates typically require background checks to determine if students have disqualifying criminal convictions, pending criminal charges and/or certain other experiences. Students who cannot satisfy such a review cannot be placed at the site and cannot therefore complete the program. Accordingly, such students will not be admitted to the program in the first instance.

Applicants with previous nursing knowledge and skills have the opportunity for advanced placement. Applicants can be admitted as full or part-time students. The Nursing program is approved by the Maine State Board of Nursing, 158 State House Station, 24 Stone Street, Augusta, Maine 04333-0158, telephone (207) 2871133. In addition, the Associate Degree option was granted continuing accreditation in 1996 by the National League for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York City, NY 10006, telephone (212) 363-5555. The Program was reaccredited in July 2004.

Career Opportunities

Graduates of either level 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 at the University of Southern Maine or at the University of Maine at Fort Kent.

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 client/patient needs through the collection, analysis and synthesis of relevant 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 incorporate teaching/learning methods, implementing and evaluating the effectiveness of relevant strategies in the delivery of nursing care to a group of patients with complex needs.

7. The graduate will collaborate with other health care team members and the patient and significant others in planning and providing safe and effective care across health care in a variety of settings.

8. The graduate assumes 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 and seeking assistance from experienced health care team members when necessary.

9. The graduate will continue his/her education either formally through organized upper division classes and in-service education, or independently utilizing nursing research and other professional resources.

Selective Admission Requirements

1. Demonstrate above average proficiency in reading and mathematics as evidenced by the Nurse Entrance Test.
2. 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.
3. Because health care workers are at high risk for certain illnesses, the applicant must submit proof to the Chairperson of the Nursing Program of the following immunizations or immunities two months prior to the start of the first nursing course.

MMR: Measles, Mumps, Rubella

An official record of an immune titer must be provided for each disease.

HBV: Hepatitis B: 3 Doses

An official record of an immune titer must be provided following completion of the series.

TD: Adult Tetanus

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

(Continued on next page)

Nursing (NUR)

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.

In addition, other yearly tests and/or immunizations may be required.

4. Submit other medical or educational documentation as requested by the Nursing Department.

5. Complete the application process by January 31st 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 National League for Nursing Accreditation Commission (NLNAC) and 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 - 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. All nursing students (both full and part-time) must carry personal health insurance.
4. Nursing majors must purchase uniforms before entry into the nursing courses.
5. 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.
6. Nursing majors must follow the proper course sequence 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. Failure to meet the attendance requirement may result in dismissal from the program. Completion of all Nursing program courses with a grade of C or better and a minimum GPA of 2.00 is required to graduate.

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 (Lec.)	3
BIO 116 Anatomy and Physiology I (Lab)	1
ENG 101* College Writing	3
NUR 112 Foundations of Nursing/Nursing Care of Adults	9
NUR 115 Medication Preparation, Administration, and Dosage Calculations	1

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

Special Requirement	(3 credit hour)
NUR 116 Role Transition (<i>this course is required only of Licensed Practical Nurses prior to second year nursing courses</i>)	

Semester II	Credit Hours
BIO 117 Anatomy and Physiology II (Lec.)	3
BIO 118 Anatomy and Physiology II (Lab)	1
NUR 121 Nursing Across the Life Span I	10
PSY 101 Introduction to Psychology	3

Special Session	(2 credit hours)
NUR 134 Clinical Practicum (<i>for only those pursuing the Diploma award and exiting at the practical nursing level</i>)	

Semester III	Credit Hours
BIO 211 Microbiology (Lec.)	3
BIO 212 Microbiology (Lab)	1
NUR 212 Nursing Across the Life Span II	9
PSY 111 Developmental Psychology	3

Semester IV	Credit Hours
NUR 213 Nursing Across the Life Span III	9
COM 100 Public Speaking	3
____ Elective: Humanities - Advisor approved	3
____ Elective: General Education - Advisor approved	3

Total Credit Hour Requirements	68
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Distribution of A.S. Credit Hour Requirements

Communication, Humanities and Social Sciences - 15 (22%)

COM 101, ENG 101, PSY 101, 111 and one elective.

Mathematics and/or Science - 12 (18%)

BIO 115, 116, 117, 118, 211 and 212.

Concentration - 38 (55%)

NUR 112, 115, 121, 212 and 213

Elective (General Education) - 3 (5%)

Radiologic Technology (RAT)

Program Description

In cooperation with Central Maine Medical Center (CMMC - Lewiston) School of Radiologic Technology, Central Maine Community College provides courses in life sciences, communication, social sciences and computer applications to students matriculated in the CMMC program who wish to earn an Associate in Applied Science Degree.

Central Maine Community College awards 45 academic credits in recognition of the full two-year, Joint Review Committee on Education in Radiologic Technology accredited CMMC Radiologic Technology program. In addition, Central Maine Community College requires twenty-three academic credits in arts and sciences in order for the student to meet the requirements of the Associate of Applied Science Degree. Students are strongly encouraged to pursue the degree requirements during their enrollment at CMMC.

Prospective applicants for the program must contact the School of Radiologic Technology at Central Maine Medical Center in Lewiston, Maine at (207) 795-5974, for further information and application details.

The opportunity to earn the associate degree is also available to CMMC graduates (1959 to present) provided they are recommended by the CMMC Radiologic Technology program faculty. Prospective degree applicants who meet these criteria should contact the admissions office at Central Maine Community College for further information and application details.

Career Opportunities

Graduates of the program are eligible to apply to take the examination of the American Registry of Radiologic Technologists. Graduates are eligible for Maine State Licensing and are qualified to work in hospitals, clinics and physician offices. Graduates may choose to pursue specialty training in the various modalities of radiology or transfer into the Bachelor of Science in Health Sciences program at the University of Southern Maine.

In addition to the successful completion of the CMMC program requirements, the following Central Maine Community College coursework must be completed in order to earn an Associate in Applied Science Degree (all degree candidates must have completed a minimum of 17 credit hours at Central Maine Community College).

Program Educational Outcomes

Upon completion of the Associate in Applied Science in Radiologic Technology, the graduate is prepared to:

1. Integrate all previous learning experiences gained from the general education courses to provide diagnostic radiography services to patients in health care settings.
2. Utilize effective written and oral communication skills in the practice of radiologic technology as a member of the health care team.
3. Employ critical thinking skills in the practice of diagnostic radiologic services to patients in health care settings.
4. Assume ethical and legal responsibility as a member of the profession of Radiologic Technology by following the Code of Ethics of the American Registry of Radiologic Technologists and practices

Associate in Applied Science Degree Requirements

	Credit Hours
BCA 120 Introduction to Computer Applications <u>or</u>	
BCA 152 Integrated Software Applications - Advisor approved	3
BIO 115 Anatomy and Physiology I (Lec.)	3
BIO 116 Anatomy and Physiology I (Lab)	1
BIO 117 Anatomy and Physiology II (Lec.)	3
BIO 118 Anatomy and Physiology II (Lab)	1
ENG 101* College Writing	3
MAT 100* Intermediate Algebra <u>or</u>	
MAT 122 College Algebra <u>or</u>	
MAT 135 Statistics - Advisor approved	3
RAT 199 Radiologic Technology - Prior Learning	45
COM 100 Public Speaking <u>or</u>	
COM 101 Interpersonal Communication	3
_____ Elective: Humanities - Advisor approved	3
_____ Elective: Social Science - Advisor approved	3
<i>*Course placement determined by assessment test scores and/or prior college course work.</i>	
Total Credit Hour Requirements	71

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Sciences - 12 (17%)

COM 100 or 101; ENG 101; and two electives.

Mathematics and/or Science and/or Business - 11(15%)

BIO 115, 116, 117, 118; MAT 100 or 112 or 135

Concentration - 48 (68%)

BCA 120 or 152; RAT 199

within the Maine Radiation and Health Safety Act.

5. Continue their education either formally through organized upper division classes, in-service education, radiologic specialty education or independently utilizing professional resources.

Selective Admission Requirements

In addition to meeting the general admission requirements of the College, applicants to the Radiologic Technology Program must:

1. Be accepted to the Central Maine Medical Center School of Radiologic Technology;
2. Submit evidence of successful completion with a grade of C or better of 2 years of High School college preparatory math including Algebra.
3. Submit evidence of successful completion with a grade of C or better of High School college preparatory Biology and Chemistry.
4. Complete the application process by December 31st each year for competitive review process.

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Radiologic Technology (RAT)

Pre-registration Requirements

1. Demonstrate above average proficiency in reading, writing and mathematics as evidenced by Central Maine Community College assessment.
2. Submit medical history and physical exam results to the Radiologic Technology Program at Central Maine Medical Center.
3. Because health care workers are at high risk for certain illnesses, the applicant must submit proof of the following immunizations or immunities two months prior to the start of the first Radiologic Technology course.

MMR: Measles, Mumps, Rubella

An official record of an immune titer must be provided for each disease.

HBV: Hepatitis B: 3 Doses

An official record of an immune titer must be provided following completion of the series.

TD: Adult Tetanus

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.

In addition, other yearly tests and/or immunizations may be required.

4. Submit other medical or educational documentation as requested by the Radiologic Technology Department.

It is the applicant's responsibility to submit the required documentation. Upon admission to the program, the student is assigned a Radiologic Technology faculty advisor.

Telecommunications Technology Verizon (TTV)

Program Description

Telecommunications Technology: Verizon is a corporate specific, Associate in Applied Science degree program designed for qualified employees. The goal of the program is to prepare a more highly educated work force in order to compete successfully in the rapidly changing telecommunications marketplace.

Central Maine Community College faculty and administrators are participating with other community and technical colleges in Maine, Massachusetts, Vermont, New Hampshire, Rhode Island and New York in planning and delivering the curriculum. Selected employees are released from their work assignments to attend eight hours of classes for one day each week throughout the academic year. Students who meet the curriculum requirements can earn an Associate in Applied Science degree in eight semesters.

A laptop computerized virtual learning environment is provided to teaching faculty and students to facilitate extensive learning activity between class days through assignments and team communication. The virtual learning environment is a critical component for each course.

Group and individual educational project assignments incorporate contents such as team building, mentoring by senior technicians, problem solving and troubleshooting of real tasks, customer service for a diverse customer base, project management, information acquisition, individual responsibility for continuous learning, and the latest high technology field applications.

This unique offering is made possible by the collaborative efforts of Verizon, the International Brotherhood of Electrical Workers and the participating colleges. It is also referred to as the Next Step Program.

Program Educational Outcomes

Upon completion of the Telecommunications Technology (Verizon) Program, the graduate is prepared to:

1. Help to define standards for quality and evaluating products, processes and/or services against those standards; doing the job right the first time, and doing it in a way that satisfies customers requirements.
2. Work as part of a team to achieve mutual goals, building meaningful and productive professional relationships regardless of personal differences, and coach others to enhance individual and team performance.
3. Demonstrate a rigorous organized approach to planning work and projects; ensure leadership among peers to ensure customer service projects are completed in a timely manner and in such a way as to completely satisfy customers.
4. Demonstrate confidence in applying knowledge of the Telecommunications Industry, especially up-to-date knowledge of Verizon's core technology, products and services for the purpose of being able to deliver these products and services to Verizon's customers in a timely and expert fashion; be driven by a recurring concern to do things better, or at a higher standard, than has been done previously.
5. Conduct his/her work with a strong focus on the needs of the customer to a quality standard that builds trust and confidence for long term relationships; use effective interpersonal skills to build and maintain relationship with others.

Associate in Applied Science Degree Requirements Class of 2010

Courses for the Telecommunications Technology (Verizon/IBEW NEXT STEP) Program includes three main areas of study: arts and sciences, general education, electricity/electronics, and telecommunications for a total of 60 credit hours.

Sequence of Courses:

Semester 1		Credit Hours
BCA 120	Introduction to Computer Applications	3
LER 011	Orientation Seminar *(a non degree credit, program requirement)	*1
MAT 130	Technical Mathematics I	4
Semester 2		
ENG107	Introduction to Writing	3
TTV 160	Digital Systems for Telecommunications I	4
Semester 3		
MAT 230	Technical Mathematics II	4
TTV 161	Digital Systems for Telecommunications II	4
Semester 4		
PHY 130	Physics	4
TTV 162	Electrical Circuits	4
Semester 5		
TTV 260	Introduction to Electronics	4
TTV 261	Telecommunications I	4
Semester 6		
TTV 262	Electronic Communications	4
TTV 263	Telecommunications II	4
Semester 7		
ENG227	English Composition II	3
TTV 264	Telecommunications III	4
Semester 8		
SSC 216	Changing Nature of Work	3
TTV 265	Telecommunications IV	4
<i>Note: Additional class and/or lab hours are conducted via an electronic network.</i>		
Total Credit Hour Requirements		60

Distribution of A.A.S. Credit Hour Requirements

Humanities and Social Science - 9 (15%)

ENG 107, 227; and SSC 216.

Mathematics and/or Science - 12 (20%)

MAT 130, 230; PHY 130.

Concentration - 39 (65%)

BCA 120; TTV 160, 161, 162, 260, 261, 262, 263, 264 and 265.

6. Systematically obtain and evaluate information to develop and implement practical and cost competitive solutions to customer problems in a timely manner; see challenging situations as a means to learn.

Trade and Technical Occupations (TTO)

Program Description

This program recognizes proficiency at the associate in applied science degree level for various trades and technical occupations where an individual has completed a formal, registered* Apprenticeship program (i.e. journey status).

Individuals who have completed a registered* Apprenticeship program and those who wish to complete the Trade and Technical Occupations Program while concurrently meeting Apprenticeship requirements, are eligible for admission.

*Registered by Maine State Apprenticeship Council; Bureau of Apprenticeship Training, U.S. Department of Labor; or formal programs approved by the College. It is the responsibility of the individual to make the appropriate sponsor arrangements for his/her Apprenticeship experience prior to filing an Application for Admission to the TTO program.

Program Educational Outcomes

Upon completion of the Associate in Applied Science Degree in the Trade and Technical Occupations Program, the graduate is prepared to:

1. Communicate clearly using written and verbal means.
2. Work with others to solve problems that could affect the outcomes of specific projects in the workplace.
3. Continue to gain knowledge/skills through formal or informal means.
4. Realistically analyze career opportunities and individual strengths to make sound career decisions.

Admission to the Program

Individuals who seek admission to this program should contact the Admissions Office and follow the standard admission procedures. Apprentices who are currently registered must submit their Program of Training and Apprenticeship Contract with their completed Application.

Residency Requirement

In addition to the credit hours awarded for a valid Apprenticeship, at least 12 academic credits must be earned by the Trade and Technical Occupations student at Central Maine Community College. These credits must represent catalog courses approved by the student's Academic Advisor.

Assessment of Prior Learning

The student is responsible for providing the necessary documentation to verify his/her successful completion of the apprenticeship program; i.e., certification documents, a schedule of training required by the employer, and other credentials that support student enrollment.

Associate in Applied Science Degree Requirements

Sample Student Program	Credit Hours
Technical Specialty (prior learning):	
TTO 199 Completed Apprenticeship	18-24
Electives:	
___ ___ Advisor Approved	27-21
General Education (minimum) :	
ENG101* College Writing	3
___ ___ Elective: General Education - Advisor approved	3
___ ___ Elective: Humanities - Advisor approved	3
___ ___ Elective: Social Science - Advisor approved	3
___ ___ Elective: Mathematics - Advisor approved	3
___ ___ Elective: Mathematics/Science - Advisor approved	6-8
___ ___ Elective: Communication - Select one of the following:	3
COM 100 Public Speaking	
COM 101 Interpersonal Communication	
ENG 201 Technical Writing	
Total Credit Hour Requirements	69-71

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

Distribution of A.A.S. Credit Hour Requirements

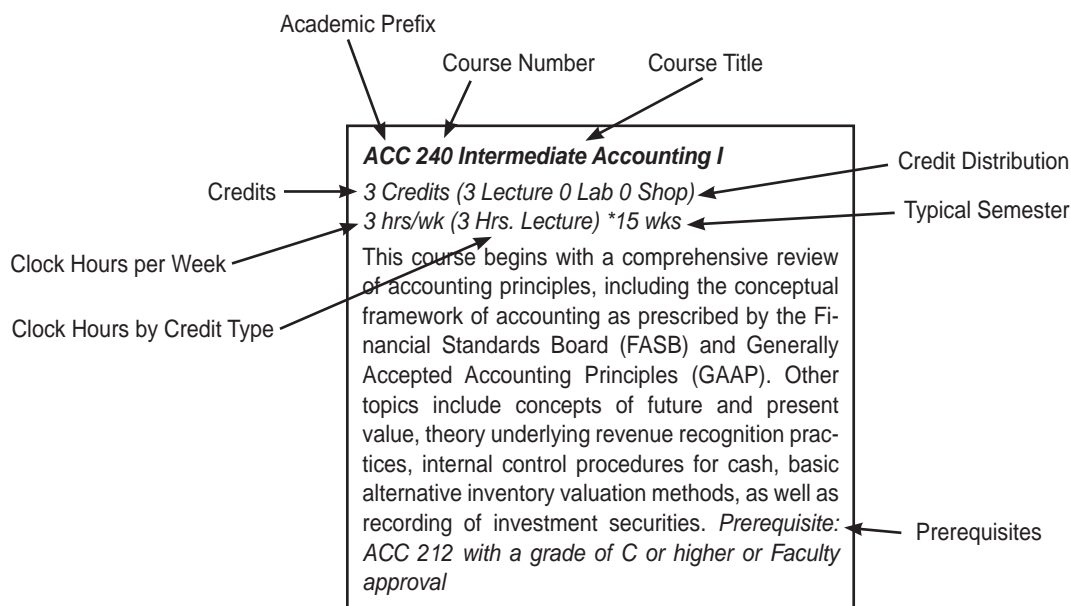
- Humanities and Social Science - 12 (17.4%)*
- COM 100, 101 or ENG 201, ENG 101; and one Social Science elective
- Mathematics and Science - 9-11 (13%)*
- One Math elective; two Math/Science electives
- Concentration - 45 (65.2%)*
- TTO 199; and Advisor approved electives
- Elective - 3 (4.3%)*
- General Education (Advisor approved)

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 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 curricula designs are based on the following (Maine Community College System Academic Affairs Policy No. 304) definition of a Unit of Credit:

“(1) one semester credit hour for each fifteen hours of classroom contact plus thirty hours of outside preparation or the equivalent; or (2) one semester credit hour for each thirty hours of laboratory work plus necessary outside preparation or its equivalent, normally expected to be fifteen hours; or (3) one semester credit hour for not fewer than forty-five hours of shop instruction (contact hours) or the equivalent...”

Source: Miller, W. Jerry, and Mills, Olive, *Credentialing Educational Accomplishment, Report and Recommendations of the Task Force on Educational Credit and Credentials.* (Washington, D.C.: American Council on Education, 1978), p. 13.

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 Financial Accounting

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.

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 and cash, accounting systems, accounts and notes receivable, 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 designed to further the understanding of basic accounting principles, methods and procedures gained in Principles of Accounting I; for example, Partnerships, Current and Long-term liabilities, and Capital stock. Other topics include Cash flows and Statement analysis, along with an introduction to Managerial accounting concepts. In addition, an integrated computer-based simulation/project will be completed at the end of the semester. *Prerequisite:* ACC 210 or Faculty approval.

ACC 225 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.

Specific areas covered include: cost classifications, accumulating costs through job order and process costing techniques, budgeting, responsibility accounting, and transfer pricing. The

fundamental accounting concepts and techniques for planning and control are applicable to all types of functions of organizations; therefore, this course deals with not-for-profit, retail, wholesale, selling and administrative functions as well as the more traditional manufacturing organizations.

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 or Faculty approval

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 or Faculty approval.

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. *Prerequisites:* ACC 210 or Faculty approval.

ACC 246 Tax Accounting (Individual)

3 Credits (3 Lecture 0 Lab 0 Shop)
3 hrs/wk (3 Hrs. Lecture) *15 wks

This introductory course examines taxation for individuals, including Schedule C, which is filed for sole proprietorship businesses. Filing requirements, gross income, exclusions, deductions, exemptions, tax credits, and tax research are a sampling of the topics covered. A general overview of tax consequences for different forms of business entities such as corporations, partnerships, limited liability companies, and S Corporations is included. *Prerequisite:* ACC 210 or Faculty approval.

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.

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.

Course Descriptions

Applied Technical Studies (ATS)

ATS 199 Prior Learning

15 wks. Variable Credit (maximum 24)

This catalog listing reflects Central Maine Community 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 are systematically identified and documented in a portfolio which is assessed by faculty representatives of the College and credit is awarded. *Prerequisites:* ENG 101, ENG 201 and Portfolio Development Seminar.

Architectural and Civil Engineering Technology (ACET)

ACET 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. *Prerequisite:* Score above the 40th percentile on CMTC Assessment Tests, Knowledge of basic computer skills, *Co-requisite:* ACET 115

ACET 114 Construction and Materials

4 Credits (2 Hrs. Lecture 2 Lab 0 Shop)

6 hrs/wk (2 Hrs. Lecture 4 Hrs. Lab) *15 wks.

Students will research design and construction processes, materials, and methods to design a commercial masonry steel frame building, components and a preliminary site plan. The student will evaluate and implement expanded concepts in CAD construction document preparation utilized within the A/E industry. The student will expand their knowledge use of CAD through the "hands-on" approach for CAD training for the creation, presentation of construction. *Prerequisites:* ACET 113 and ACET 115.

ACET 115 Building and Site Pre-design

3 Credits (3 Lecture 0 Lab 0 Shop)

3 hrs/wk (3 Hrs. Lecture) *15 wks

Introduces students to the pre-design research and the design phases towards construction document creation. Students will analyze preliminary design considerations impacting

the site and buildings design. Students will research, evaluate, and present their findings on the building and site's use, program considerations, code study, building systems research and evaluation, zoning, site vehicular/pedestrian access, building orientation, topography, landscaping, storm water management.

Students will explore architectural history through a brief overview with emphases on the precedents in design. Students will expand their use of CAD software tools to translate preliminary hand drawn sketches of building and site into CAD presentation drawings. Students will also be introduced to the office environment, with emphasis on accurate record keeping, teamwork, professional ethics, problem solving skills, written and oral communication skills and presentation of final works of study. *Prerequisite* or *Co-requisite* ACE 113

ACET 121 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* or *Co-requisite:* ACET 113.

ACET 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 ACET 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. *Prerequisites:* ACET 121 and *Pre* or *Co-requisites:* ACET 114

ACET 131 Surveying I

3 Credits (3 Lecture 0 Lab 0 Shop)

3 hrs/wk (3 Hrs. Lecture) *15 wks

This course covers elementary land surveying, including the theory of measurements, the theory and practice of computing land areas by trigonometric methods, angles and bearings, and highway curves.

ACET 132 Surveying II

3 Credits (1 Lecture 2 Lab 0 Shop)

5 hrs/wk(1 Hr. Lecture 4 Hrs. Lab)*15 wks

This course covers the use of the theodolite, total station and survey data collector for levels, traversing and topography. The computations for traversing in the State Plane Coordinate System are oriented from GPS (Global Positioning System) monuments located on campus. *Prerequisite:* ACET 131.

ACET 204 Building Systems

3 Credits (1 Lecture 2 Lab 0 Shop)

5 hrs/wk (1 Hr. Lecture 4 Hrs. Lab) *15 wks

This course introduces plumbing, heating, air conditioning and electrical systems for building applications. Students design building systems and create plumbing, heating and lighting plans for industrial or commercial buildings. *Prerequisite:* PHY 142, ACET 114.

ACET 234 Legal Aspects of Surveying

3 Credits (3 Lecture 0 Lab 0 Shop)

3 hrs/wk (3 Hrs. Lecture) *15 wks

This course looks at the U.S. Legal System, the role of the surveyor, deed descriptions, and how land use regulations are used to prepare a land subdivision plan. *Prerequisite:* ACET 131 or *Faculty approval.*

ACET 242 Independent Project

1 Credit - Number of hours per week to be determined by Advisor

An independent project related to the course of study is selected by the student with faculty approval. *Prerequisite:* Faculty approval

ACET 261 Civil Technology

3 Credits (3 Lecture 0 Lab 0 Shop)

3 hrs/wk (3 Hrs. Lecture) *15 wks

This course includes: (A) Steel shop drawings and the introduction to structural fabrication drawings. (B) Storm water drainage, the methods of estimating the rate and amount of flow from small water sheds. *Prerequisite:* ACET 113 and ACET 122

ACET 262 Soils and Foundations

1 Credit (.33 Lecture .66 Lab 0 Shop)

1.65 hrs/wk (.33 Hr. Lecture 1.32 Hrs. Lab) *15 wks

Determination of soil properties and appropriate selection of building foundations are presented in this course. Soils lab work is performed. A building foundation is designed and drawn.

Course Descriptions

ACET 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 construction project management and its array of disciplines consisting of methods of management, scheduling, safety, contracting, documentation, construction operations and preliminary estimating. Students participate in teamwork project utilizing CPM scheduling, and construction field observations. *Prerequisite: Senior Standing.*

ACET 285 Civil Site Design CAD

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hr. Lecture) *15 wks

This is an advanced level CAD course utilizing building - site design oriented CAD based software. The course introduces the student to Land Development Desktop and how this software is used towards site design and documentation towards the creation of industry standard drawings. The focus of the course will be on creation of drawings/presentations widely accepted within the construction - design industry utilizing LDT. *Prerequisite: Faculty approval ACET 113 - 114 - 115.*

Anthropology (ANT)

ANT 101 Introduction to Cultural Anthropology

3 credits

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.

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 expand the knowledge gained in ART 101 (2-D Design) and 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. *Prerequisite: ART 101 or permission of the instructor.*

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 will cover the fundamentals of astronomy. Topics covered will include the solar system and Earth's place in it, stars, galaxies, and concepts of the universe. Also covered will be telescopes, spacecraft, and other tools used to acquire knowledge of distant objects. 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.

Automotive Technology (AUT)

AUT 100 Intro to Automotive Technology

1 Credit (.5 Lecture 0 Lab .5 shop)
2 Hrs/Wk (.5 Hr. Lecture 1.5 Hrs. Shop) *15 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) *15 wks

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.

AUT 120 Suspension and Alignment

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

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.

AUT 130 Engine Repair I

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hrs/Wk (1 Hr. Lecture) *15 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.

Course Descriptions

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)
*15 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, disassemble, reassemble and reinstall a functional engine. *Co-requisite: AUT 130.*

AUT 150 Electrical Systems 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 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.

AUT 155 Electrical Systems II

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hrs/Wk (1 Hr. Lecture) *15 wks

This course teaches the basic electronic control of accessory and body components. The theory, operation, identification and location of chassis electrical and electronic components will be studied.

AUT 156 Auto Electric II Lab

4 Credits (2 Lecture 2 Lab 0 Shop)
6 Hrs/Wk (2 Lecture 4 Hrs. Lab) *15 wks

This lab will provide the opportunity for students to diagnosis and repair the electronic control system for accessory and body components. The systems will include but not be limited to: electronic feedback systems, heat/cooling ventilation, interior accessories, lighting and body electrical. *Co-requisite: AUT 155*

AUT 159 Auto Electronic and HVAC

5 Credits (3 Lecture 0 Lab 2 Shop)
9 Hrs/Wk (3 Lecture 6 Hrs. Shop) *15 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.

AUT 160 Air Conditioning

1 Credit (.5 Lecture .5 Lab 0 Shop)
1.5 Hrs/Wk (.5 Hrs. Lecture 1 Hr. Lab) *15 wks

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.

AUT 170 Engine Performance I

3 Credits (2 Lecture 0 Lab 1 Shop)
5 Hrs/Wk (2 Hrs. Lecture 3 Hrs. Shop) *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.

AUT 175 Alternate Fuels

1 Credit (.5 Lecture .5 Lab 0 Shop)
1.5 Hrs/Wk (.5 Hrs Lecture 1 Hr. Lab) *15 wks

This course introduces the principles and use of alternate fuels to power the automobile of the future. Multi-power and multi-fuel use of gas, propane, diesel, alcohol and electric cells will be explored.

AUT 180 Field Experience

4 Credits (0 Lecture 0 Lab 4 Shop)
12 Hrs/Wk (12 Hrs. Shop) *15 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.

AUT 181 Field Experience

2 Credits (0 Lecture 0 Lab 2 Shop)
6 Hrs/Wk (6 Hrs. Shop) *15 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. *Prerequisite: Department Chairperson 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) *15 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. *Prerequisite: Dept. Chairperson 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) *15 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. *Prerequisite: Department Chairperson 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) *15 wks

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. *Prerequisite: Automotive Core.*

AUT 240 Automatic Transmission

6 Credits (3 Lecture 0 Lab 3 Shop)
12 Hrs/Wk (3 Hrs. Lecture 9 Hrs. Shop) *15 wks

This course teaches theory and practice devoted to all types of automatic transmissions/transaxles 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. *Prerequisite: Automotive Core.*

AUT 241 Automatic/Manual Transmission

5 Credits (3 Lecture 0 Lab 2 Shop)
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) *15 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. Diagno-

Course Descriptions

sis and repair of clutch, transmission, transaxle, drive shaft, ring/pinion, axle shaft, differential case, and four-wheel drive components will be included. *Prerequisite:* AUT 183.

AUT 245 Manual Drive Train/Axles

4 Credits (2.33 Lecture 0 Lab 1.67 Shop)
7.34 Hrs/Wk (2.33 Hrs. Lecture 5.01 Shop)
*15 wks

This course will cover transmission theory and power flow from the engine to the drive axle. Diagnosis and repair of clutch, transmission, transaxle, drive shaft, ring/pinion, axle shaft, differential case, and four-wheel drive components will be included. *Prerequisite:* Automotive Core.

AUT 270 Engine Performance II

4 Credits (3 Lecture 0 Lab 1 Shop)
6 Hrs/Wk (3 Hrs. Lecture 3 Hrs. Shop) *15 wks

This course deals with engine performance principles as related to electronic feedback systems for fuel control, spark management, emission controls and transmission related systems. Strategy based diagnosis will be emphasized using electronic diagnostic equipment. *Prerequisite:* AUT 170.

AUT 271 Electronic Engine Control

5 Credits (3 Lecture 0 Lab 2 Shop)
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) *15 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 181

AUT 275 Engine Performance III

3 Credits (2 Lecture 0 Lab 1 Shop)
5 Hrs/Wk (2 Hrs. Lecture 3 Hrs. Shop) *15 wks

This course will cover all electronic components found in today's automobile. The student will troubleshoot OBDII drivability faults as they relate to modern emission controlled engines. Diagnosis leading to tests and repairs to trade standards of time and accuracy.

AUT 290 Advanced Chassis Systems

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hrs/Wk (1 Hr. Lecture) *15 wks

This course will involve a comprehensive study of electronic and computerized brake, traction, suspension, steering, and alignment system 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.

AUT 291 Advanced Chassis Systems

3 Credits (0 Lecture 0 Lab 3 Shop)
9 Hrs/Wk (9 Hrs. Shop) *15 wks

This course will involve a comprehensive study of electronic and computerized brake, traction, suspension, steering, and alignment systems of modern vehicles. The study of computer integrations with practical experiences in analyzing problems and replacement of faulty sensors and associated components will provide students with practical applications to classroom lectures.

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:* Dep. Chair approval.

Biology (BIO)

BIO 101 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. 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. *Prerequisites:* High school biology with lab or Instructor approval.

BIO 102 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. *Co-requisite:* BIO 101.

BIO 104 Health and Wellness

3 Credits

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 107 108 Introduction to Forensic Science

4 Credits

These two courses, theory and laboratory, run concurrently and are designed to provide the student with an introduction to 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 higher in one of the following Life Science course: BIO 101-102, or BIO 115-116. *Co-requisite:* ENG 123 and LCS 100.

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. *Prerequisites:* BIO 101/102 or approval of the instructor.

Course Descriptions

BIO 115 Anatomy and Physiology I

3 Credits (3 Lecture 0 Lab 0 Clinical)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

The study of cell chemistry, structure, and function. Students will be introduced to the principles of genetics, reproduction, growth and development and to the study of the integumentary and skeletal system. *Prerequisite: Must meet the prerequisites for both ENG 101 and MAT 100.*

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. *Co-requisite: 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 focuses on many of the organ systems of the human body. The structure and function of the muscular, nervous, endocrine, cardiovascular, respiratory, digestive, and urinary systems will be discussed. *Prerequisites: grade of C or higher in BIO 115 and 116.*

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. *Co-requisite: 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.*

BIO 211 Microbiology

3 Credits (3 Lecture 0 Lab 0 Clinical)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

The biology of viruses, bacteria, cyanobacteria, fungi, protozoa and helminthes is presented. The structure and metabolism of common microbes are emphasized. Ecological principles are developed using microbial examples. Mammalian im-

munity is also examined. Techniques for handling, culturing, and identifying representative microbes are performed by the student in the laboratory. *Prerequisites: BIO 115, 116, 117, 118.*

BIO 212 Microbiology

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 211. *Co-requisite: 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 Biology 101 and 102, General Biology with Laboratory, or BIO 115 and 116 Anatomy and Physiology I with Laboratory or BIO 105 Essentials of Anatomy and Physiology.*

Building Construction Technology (BCT)

BCT 101 Introduction to Hand and Power Tool Safety

1 Credit (.25 Lecture 0 Lab .75 Shop)
2.5 Hrs/Wk (.25 Hr. Lecture 2.25 Hrs. Shop) *15 wks

This course introduces students to safety procedures used for hand and stationary power tools. Students will demonstrate their understanding by constructing a tool box and saw horse from a provided drawing.

BCT 106 Concrete Forms

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

The student is introduced to reinforced concrete theory. Shop and field experience includes principles and practices of form construction and placement of concrete.

BCT 107 Floor Framing

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

Students are introduced to the principles of layout and construction of floor framing. Students will demonstrate their understanding by framing a floor on a foundation including rough openings.

BCT 108 Wall Framing

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

This unit introduces students to the principles of wall framing including blocks, lines and spring boards used to straighten walls. Students will demonstrate their comprehension by assembling walls with rough openings.

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 127 Introduction to Residential CAD

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

Students are introduced to residential site design and planning through the use of CAD. Students will start to compile a set of residential blueprints by working on site design, foundation, and basic framing drawings. Students are introduced to preliminary site development using basic zoning, code, and deed descriptions as they relate to a site plan.

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 133 Roofing

1 Credit (.25 Lecture 0 Lab .75 Shop)
2.5 Hrs/Wk (.25 Hr. Lecture 2.25 Hrs. Shop) *15 wks

This course introduces students to common roofing materials and practices. Students will install roofing on a common roof and in a valley. The valley will be shingled by lacing and lapping.

BCT 134 Siding

1 Credit (.25 Lecture 0 Lab .75 Shop)
2.5 Hrs/Wk (.25 Hr. Lecture 2.25 Hrs. Shop) *15 wks

This course introduces students to common siding materials. Students will apply vinyl, clap boards, and cedar shingles.

Course Descriptions

BCT 135 Roof Framing

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

This course introduces students to the use of a framing square, calculator, and rafter manual to layout rafters. Students will demonstrate these principles by laying out, cutting and installing different types of rafters.

BCT 136 Exterior Roof Trim

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

Students will be introduced to exterior roof trim styles such as open and closed returns. Students will demonstrate their skills by applying roof trim.

BCT 138 Doors and Windows

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

This course introduces student to the application of doors and windows. Students will identify door and window components and hardware. To demonstrate their comprehension, students will build and install a Boston style window and install an exterior door.

BCT 202 Construction Estimating

3 Credits (1 Lecture 2 Lab 0 Shop) 5 Hrs/Wk (1 Hr. Lecture 4 Hrs. Lab) *15 wks

Students will generate a competitive cost analysis of a residential home from a set of blueprints. Materials 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, subcontractor costs, overhead and profit components. Students will be exposed to minimum legal requirements of a construction contract in the State of Maine. *Prerequisite: 100 level courses or department approval.*

BCT 203 Interior Trim

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

This is a hands on course giving students experience in the fundamental finish skills required to hang and trim an interior door, apply extension jambs and trim to windows, and properly install a profiled baseboard practicing the skill of coped inside corners. Intensive instruction is also given to the safety, use, and field applications of router use including the building of a router table. *Prerequisite: 100 level courses or department approval.*

BCT 235 Cabinets

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

In this course students study basic kitchen design and layout. Students draft scaled working drawings for the construction of base and wall cabinets. Utilizing plans, working drawings and estimates, students learn to cut stock, assemble cabinets and install hardware. Instruction and demonstration is given on the proper use of shapers and power feeders to produce raised panel cabinet doors. *Prerequisite: 100 level courses or department approval.*

BCT 236 Finished Stairs

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

Students are introduced to the basic concepts and practices of layout, estimation of materials, and construction of finished stairs. Upon completion of producing scaled drawings, students will build open and closed stairs incorporating skills to properly rout a housed skirt board and install an open balustrade. *Prerequisite: 100 level courses or department approval.*

BCT 237 Masonry

2 Credits (.5 Lecture 0 Lab 1.5 Shop)
5 Hrs/Wk (.5 Hr. Lecture 4.5 Hrs. Shop) *15 wks

Students will be introduced to the practical application of brick and block laying. Students will demonstrate their understanding through hands-on projects of mixing mortar to lay bricks and blocks.

BCT 240 Construction Drafting

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

In this course students continue their study of AutoCAD by completing the set of Residential blueprints started in BCT 127. Auto-CAD file and layer management is stressed along with construction details, building upon all previous BCT course knowledge. *Prerequisites: BCT 127.*

BCT 296 Independent Study

Variable Credit (Maximum 3) Number of hours per week to be determined by Advisor

The provision allows for a performance contract between student and a department instructor to reach mutually agreed upon goals. Credit earned and grade depend upon quality and efficiency of performance. *Prerequisite: Approval of BCT Department Chairperson.*

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.

Course Descriptions

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 122 Business Law

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course provides an overview of the legal environment in which both large and small businesses operate. The course content includes discussion of the Uniform Commercial Code and its impact on sales and contracts, agency relationships, government regulation, torts, personal and real property rights. *Prerequisite: BUS 100.*

BUS 125 Total Quality Control

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 that Total Quality Control is designed to present the modern field of quality control as a body of managerial, technological, behavioral, and economic knowledge together with the organized application of this knowledge to the practical improvement of industrial or service operations.

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 Intro 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 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.

Course Descriptions

BUS 230 Independent Study/ Internship

3 Credits - Number of hours per week to be determined by Advisor

This course is designed to allow a student to work on a semester long project. The specifics of the assignment will be developed by the Faculty Advisor in conjunction with the student and the student's current or prospective employer (sponsor).

BUS 248 Money, Banking, and Financial Markets

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 better understanding of the U.S. monetary and banking system. The student will also develop an awareness of current economic issues and events relating to monetary policy.

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. Real company cases include Amazon.com, Harley-Davidson, Nissan.com and Oxfam. 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. *Prerequisite: BUS 100.*

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.

Business and Computer Applications (BCA)

BCA 101 Computer Keyboarding

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This is an introductory course in electronic keyboarding designed to present and develop basic keyboarding skills including speed, accuracy and professional standards. Students successfully completing this course will be expected to prepare documents and correspondence quickly, with a high degree of accuracy and will be judged using professional office standards. This course will use IBM compatible computers and a variety of instructional software programs. BCA 101 Computer Keyboarding will prepare individuals for Business and Computer Applications and a variety of other Central Maine Community College programs requiring keyboarding skills.

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 XP and Microsoft Office 2007. 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 121 Word Processing

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 mastery with Microsoft Word 2007 in a Windows environment. It is designed to develop competencies in a wide variety of word processing functions while building typing speed and accuracy. Students will become proficient in document management, text handling, merging, macros and a wide variety of document enhancements available in the software. *Prerequisites: Basic keyboarding skills and knowledge of PC operations or advisor approval.*

BCA 125 Navigating the Net

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is intended to instruct entry-level students in the fundamentals of presentation and internet software. It will teach them to do research on the web as well as design and maintain web pages. Specific software programs will include Outlook, PowerPoint and Netscape.

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 or advisor approval.*

BCA 241 Spreadsheet

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: BCA 120 or advisor approval.*

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 CPT 152.*

Course Descriptions

BCA 250 Applied Visual Basic

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This is an advanced course in Microsoft Office software that will focus on typical office and administrative applications. The student will learn to write macros and small programs in Visual Basic that will enhance and update Excel, Access and Word files. A good understanding of Microsoft Office will be provided. *Prerequisite:* BCA 120 or either spreadsheets or database management.

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, or Faculty approval; *Co-requisite:* CHY 102.

CHY 102 Introduction to Chemistry

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. *Co-requisite:* 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, 102; *Co-requisite:* CHY 112.

CHY 112 Organic and Biological Chemistry

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. *Co-requisite:* CHY 111.

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, the role of perception and emotions, and the importance of 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 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. *Prerequisite:* ENG 101.

Computer Aided Drafting/ Design (CAD)

CAD 110 Introduction to Computer Aided Drafting (CAD)

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This is an introductory drafting course utilizing AutoCad on Windows based-personal computers. This course offers an overview of CAD - what can be done and how to do it, including a coverage of drafting fundamentals. Students will learn the necessary commands and functions to produce a variety of two-dimensional drawings. This course uses a hands-on approach, with all topics being directly applied in the CAD lab.

CAD 262 Intermediate Computer Aided Design (CAD)

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This is an intermediate course utilizing AutoCAD on Windows-based personal computers. Students will learn advanced concepts such as paper space, xrefs, customizing and 3-D. This course uses a hands-on approach, with all topics being directly applied in the CAD lab. *Prerequisite:* CAD 110 or Faculty approval.

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 AutoCAD Mechanical Desktop on Windows-based personal computers. AutoCAD'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, MECT 142 or Faculty approval.

Course Descriptions

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 AutoCAD 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 or Faculty approval.

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 students to use the advanced features found in Central Maine Community 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 or Faculty approval.

Computer Technology (CPT)

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 2005 Express. 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 PCs and related equipment and to introduce students to operating systems compatible with today's personal computers. It provides students with an elemen-

tary understanding of PC environments including system components, peripherals, and component/card interface and the fundamentals of repair as well as intended to familiarize 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.

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 introduction course that will teach all the 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. The 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. *Prerequisite:* CPT 147.

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, Samba, routers, firewalls and file and print servers. *Prerequisites:* CPT 201(Linux) AND permission of the instructor.

CPT 208 Routers for Beginners

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course introduces communication equipment that is commonly found in an effective Internet infrastructure. The course provides product-specific installation and configuration. Equipment used in this class includes hubs, Ethernet switches, and routers. Taking a hands-on approach, students will become skilled in setting up and maintaining network equipment. All learning will take place in a hands on environment where students will directly apply instructions using individual computers. *Prerequisite:* CPT 141.

CPT 210 Introduction to Routing Technologies**

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course introduces the student to concepts and terminology encompassing generic networking and routed WANs. The seven layer OSI model is examined in depth and used to explain communication between two entities on a routed WAN. 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. Students will attend 45 hours of instructor-led class and an additional 25 hours of proctored lab time. ***For Cisco Systems Articulation Agreements Only.*

CPT 211 Introduction to Routers**

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This is the second semester of the four semester routing concentration. This course builds upon material presented in the first semester and introduces the student to the router. The major router components are examined as well as the

Course Descriptions

router operating system and configuration files. The basic router commands are introduced and used in hands on situations to program the routers to function in a routed WAN environment. Students will learn to use a TFTP server for storing configuration files and the router operating system and how to load new copies into router flash and NVRAM. Students will attend 45 hours of instructor-led class and an additional 25 hours of proctored lab time. *Prerequisite: CPT 210. **For Cisco Systems Articulation Agreements Only.*

CPT 212 Advanced Routing **

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is the third semester of the four semester routing concentration. This course builds upon material presented in the first and second semesters and introduces the student to the more advanced abilities required to install, configure, administer, and troubleshoot Cisco routers in a WAN setting. This course introduces switching and VLANs and explains their relevance to good network design and implementation. Particular emphasis during this semester is placed upon ACLs (Access Control Lists), and how they function to control access through the WAN. Configuration of Novell IPX/SPX in a Cisco WAN is also introduced. All material is presented with a hands on approach in a class/lab setting and attempts to recreate the real world as closely as possible. Students will attend 45 hours of instructor-led class and an additional 25 hours of proctored lab time. *Prerequisite: CPT 211. **For Cisco Systems Articulation Agreements Only*

CPT 213 WAN Routing**

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is the fourth semester of the four semester routing concentration. This course builds upon material presented in the first, second, and third semesters and introduces the student to the more advanced abilities required to install, configure, administer, and troubleshoot Cisco routers in a WAN. Serial line authentication techniques are introduced and practiced in hands on labs. The basic commands required to configure a router to handle ISDN and Frame Relay are introduced. The last weeks will be devoted to a final preparation for taking the Net+ and CCNA exams. Students will attend 45 hours of instruc-

tor-led class and an additional 25 hours of proctored lab time. *Prerequisite: CPT 212. **For Cisco Systems Articulation Agreements Only*

CPT 225 Advanced PC Repair

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

The second of a series of two courses, instruction is designed to prepare students for A+ Certification. *Prerequisites: Basic keyboarding skills and knowledge of PC operations, and CPT 147; or one year's experience with PC repair and installation and Faculty approval.*

CPT 230 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. *Prerequisite: Faculty approval.*

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 (NetBEUI, TCP/IP, IPX/SPX) 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. *Prerequisites: CPT 147 or two years of IT experience and Faculty approval.*

CPT 236 Introduction to TCP/IP

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is an introduction to the TCP/IP protocol stack and its associated services and utilities as implemented in the Windows Operating Systems. It will provide students with the basic

abilities required to install, configure, administer, and troubleshoot the TCP/IP protocol stack. *Prerequisites: CPT 266 or equivalent experience and permission of the instructor.*

CPT 238 Network Support and Troubleshooting

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is a relatively advanced look at network functions, which then analyzes those functions from a troubleshooting and support perspective. Rather than learning simply facts, students will learn techniques and mind sets required to support and troubleshoot networks on a daily basis by utilizing every day examples of actual failure modes. Students will be expected to demonstrate their expertise using a "hands-on" approach whenever possible. *Prerequisite: CPT 235 or two or more years of IT work experience and the permission of the instructor.*

CPT 239 Advanced Networking Concepts

3 Credits

This course is a relatively advanced look at network functions, which analyzes those functions from a troubleshooting perspective. Rather than learning simply facts, students will learn techniques required to support and troubleshoot networks on a daily basis. This course also introduces the student to 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 whenever possible. Equipment used in this class will include servers, hubs, Ethernet switches, and routers. *Prerequisites: CPT 147 PC Repair / Operating Systems and CPT 235 Intro to Networking, or two or more years of IT work experience and the permission of the instructor.*

Course Descriptions

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, Intro to Visual Basic 2005 Express. Skills learned will include; creating custom menus, working with sequential access files, string manipulation, working with variable arrays and arrays of structure, creating functions, and integrating Visual Basic with an Access database. Study time outside of class will be required to complete reading assignments and homework exercises. *Prerequisite: CPT 130 Intro to Visual Basic or Faculty approval.*

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, such as, loan calculators, billing and invoicing, bid/cost calculators, payroll calculators, education software (math games) and a variety of problem solving programs to automate complex calculations. This will be a hands on class, where students will learn programming concepts by creating a variety of programs. *Prerequisites: A basic understanding of computers and completion of at least one Programming class, or equivalent experience and the permission of instructor.*

CPT 248 Introduction to PERL/CGI Programming

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This is an introductory course in PERL (Practical Extraction and Report Language)/CGI, (Common Gateway Interface) programming. PERL/CGI is used for processing web forms, accessing data and automating operations. It is a scripting tool that is both lightweight and powerful. Some of the subjects covered in this lecture and hands-on course will include: basic PERL program structure, syntax, flow control, HTML forms processing and file handling. No prior programming experience needed.

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, using Microsoft Visual C. The C language facilitates a structured and 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

A broad based introductory course that will teach all the fundamentals to make web pages and post them on a Web site. The course will cover many types of web sites. The class will cover the basics of using HTML. The class will cover how to develop a web site and register a domain name, including costs and some locations to do so. The students will be required to deploy a small web site on the World Wide Web, using a web server on campus. Taking a hands-on approach, students will become skilled in Web Page design, management and deployment. These competencies include a basic understanding of HTML and Java scripting. All learning will be in a lab environment where students will directly apply instructions using individual computers.

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 suitable for E-commerce applications. 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. *Prerequisites: Completion of 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, gameplay. 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 gameplay using the 3D gaming engine provided by Unreal Tournament, 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: Completion of 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, cutscenes, level design, gameplay, 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 gameplay using the 3D gaming engine provided by Unreal Tournament, a commercial game engine. Programming for the course will involve using UnrealScript, the scripting language supported by UT. 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: Completion of CPT 256.*

Course Descriptions

CPT 261 Computer Forensics

3 Credits

This course will provide a comprehensive 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, e-mail investigations, image and file recovery, witness requirements and report writing. *Prerequisites:* CPT 147 Intro to PC Repair/Operating System or permission of the Instructor. *Co-requisite:* CRJ 101.

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 foundation established with CPT 235 and prepares the student for a more in-depth knowledge of network communication, protocols such as TCP/IP and peripherals. Students will design a network, install server software, create domains, workgroups, users and trusts. 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 or Faculty approval.

CPT 271 Network Security

3 Credits (3 Lecture 0 Lab 0 Shop)

3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course builds on the foundation established in CPT 235 and provides the student with a more in-depth knowledge of the TCP/IP networking protocol, firewalls, security tools, and various computer security techniques. This class is NOT a course in hacking to the extent that encourages illegal intrusion into other systems. The class enforces legal and security concepts to help computer professionals and enthusiasts prevent such occurrences. Several networking operating systems will be used, including Microsoft Windows and Linux. 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, such as Telnet, FTP and HTTP servers. 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 popu-

lar network operating systems are the primary goals of this course. *Prerequisites:* CPT 235 or instructor approval.

CPT 272 MS Exchange/IS

3 Credits (3 Lecture 0 Lab 0 Shop)

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, with permission of the instructor.

CPT 285 Senior Networking Capstone Project

3 Credits (1 Lecture 2 Lab 0 Shop)

5 Hrs/Wk (1 Hr. Lecture, .4 Hrs. Lab) *15 wks

Students taking this course will use all of the hardware and networking skills they have accumulated thus far to create realistic networks that duplicate the types of hardware, software, configuration, setup, and troubleshooting problems they might encounter in a real employment scenario. Students will begin the semester by building the platform computers from parts, and culminate with final configuration and troubleshooting of user account, rights, and applications. Students will perform all cabling, install all hardware, install all operating systems and applications, and troubleshoot their own problems with assistance from the instructor. *Co/prerequisites:* CPT 266, at least one networking elective, permission of the instructor.

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 (Introduction to Networking) and 2nd year standing.

Criminal Justice (CRJ)

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.*

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. *A criminal background check is required for all CRJ courses.*

CRJ 122 Criminal Law

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. *A criminal background check is required for all CRJ courses.*

Course Descriptions

CRJ 201 Due Process in Criminal Justice

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course will examine individual rights under the Constitution, with a concentration on the due process rights of criminally accused persons. The focus will be on United States Supreme Court cases, from the revolutionary "Warren" era to the present, and the development of the doctrine of due process in the criminal justice system in America. The course will examine in significant detail how the construction, interpretation and application of the standards set by the Court impacts justice policy as well as the lives of the average citizen. *Prerequisite:* CRJ 101. A criminal background check is required for all CRJ courses.

CRJ 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. *Prerequisite:* CRJ 101. A criminal background check is required for all CRJ courses.

CRJ 296 Special Topics in Criminal Justice

3 Credits

The students in this course will analyze and focus on a selected topic in criminal justice, offered at various times throughout the year. 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. *Prereq-*

uisite: Second year status or faculty approved. A criminal background check is required for all CRJ courses.

CRJ XXX 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. *Prerequisite:* CRJ-101

CRJ XXX Criminal Investigation and Report Writing

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. *Prerequisite:* CRJ-101

CRJ 2XX Police Operations

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course concerned with providing the student with an understanding of the role police play in today's society. *Prerequisite:* CRJ-101

CRJ 2XX Constitutional Law

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

Constitutional Laws examines the constitutional aspects of the American criminal justice process, including search and seizure, arrest, interrogation, trial and appeal.

CRJ 2XX 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 2XX Independent Study

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

Student will complete a specialized course of study administered by an outside of CMCC training vendor or complete a self directed independent study on a topic of interest.

CRJ 2XX Criminal Justice Internship (3 Credit Hours)

CRJ 2XX Criminal Justice Internship (6 Credit Hours)

In this course, a student is placed with a criminal justice agency and is supervised by the criminal justice internship coordinator. This internship is graded pass/fail and earns a student 3–6 hours of course credit. To participate in the internship, students must have completed at least two semesters and be in their second year at CMCC. Students must have a minimum 2.5 grade point average, and have faculty approval.

CRJ 2XX 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. Once potential evidence has been identified at a crime scene it must be secured, documented and properly collected. The student will learn basic evidence collection techniques. 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 pertaining to the challenges that "Special Victims" present to investigators. *Prerequisite:* CRJ 101.

Course Descriptions

Culinary Arts (CUA)

CUA 101 Principles of Cooking

4 Credits (1 Lecture 0 Lab 3 Shop)

10 Hrs/Wk (1 Hr. Lecture 9 Hrs. Shop) *15 wks

The student will become familiar with food preparation terminology, the safe use of hand tools and commercial kitchen equipment, and basic working techniques. Students will learn how to prepare stock and soups, vegetables, potatoes, rice and other farinuous products, sauces and thickening agents, salads and salad dressings, and sandwiches and eggs and cheeses. Students who successfully complete this course may apply for a Certificate from the National Restaurant Association Educational Foundation. On occasion, the application and presentation of student skills will involve evening functions. Full participation on three evenings in the fall semester is a requirement of this course. Students will be notified at least two weeks in advance of each date. *Co-requisite: CUA 111 or Faculty approval.*

CUA 111 Introduction to Baking

4 Credits (1 Lecture 0 Lab 3 Shop) 10 Hrs/Wk

(1 Hr. Lecture 9 Hrs. Shop) *15 wks

This course instructs students in the fundamentals of baking science, understanding of weights and measures, equipment use, baking terminology, and the function of ingredients. Students are introduced to basic yeast, quick breads, muffins, rolls and breads, doughnuts, fritters, pancakes, waffles, custard, puddings, and cookies. Students who successfully complete this course may apply for a Certificate from the National Restaurant Association Educational Foundation. *Co-requisite: CUA 101 or Faculty approval.*

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.

CUA 153 Quantity Food Production

5 Credits (2 Lecture 0 Lab 3 Shop)

11 Hrs/Wk (2 Hrs. Lecture 9 Hrs. Shop) *15 wks

Students will learn how to prepare a variety of beef, veal, poultry, fish and shellfish products. The elements of preparing a complete meal including menu planning, purchasing, and serving food are studied. Students learn the essentials of organizing their time to reduce waste and assure efficiency in the kitchen. Special emphasis is placed on proper food appearance and arrangement. Preparation of appetizers and hors d'oeuvres is also included. Short order cooking techniques are an integral part of this course. On occasion, the application and presentation of student skills will involve evening functions. Full participation on five evenings in the spring semester is a requirement of this course. Students will be notified at least two weeks in advance of each date. *Prerequisites: CUA 101, CUA 111; and co-requisite: CUA 163 or Faculty approval.*

CUA 163 Desserts and Pastries

5 Credits (2 Lecture 0 Lab 3 Shop)

11 Hrs/Wk (2 Lecture 9 Shop) *15 wks

Students are introduced to the preparation of desserts, including puddings, and specialty desserts, cakes and icings, pie doughs and fillings, tarts, eclairs, danish, and puff pastries. Desserts are prepared to complement the daily production menu to serve dining room guests. The course content is presented in theory, demonstration, and hands-on production learning experiences. Students who successfully complete this course may apply for a Certificate from the National Restaurant Association Educational Foundation. *Prerequisites: CUA 101, 111; and co-requisite: CUA 153 or Faculty approval.*

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. Students who successfully complete this course may apply for certification from the National Restaurant Association Educational Foundation.

CUA 179 Food Purchasing

1 Credit (1 Lecture 0 Lab 0 Shop)

1 Hr/Wk (1 Hr. Lecture) *15 wks

This course will focus on the principles and practices of purchasing food and beverages, as well as non-food items with particular attention/emphasis on purchasing systems, quality and quantity concerns, and commodities such as meat, fish and shellfish products, poultry & eggs, dairy products, fruits & vegetables, baked goods and miscellaneous products. Cost analysis of products will also be reviewed.

Early Childhood Education (ECE)

ECE 100 Introduction to Early Care and Education

3 Credits (3 Lecture 0 Lab 0 Field Experience)

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 Experience)

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 & PSY 114 or Advisor approval; Co-requisite: ECE 107.*

ECE 107 Infant and Toddler Practicum

1 Credit (0 Lecture 0 Lab 1 Field Experience)

3 Hrs/Wk (3 Hrs. Field Experience) *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

Course Descriptions

schedule and transportation that will assure the completion of the required number of hours at this site. *Prerequisites: ECE 100, PSY 114 or Advisor approval; Co-requisite: ECE 105.*

ECE 113 Curriculum and Environments for Young Children

3 Credits (3 Lecture 0 Lab 0 Field Experience)
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, PSY 114; Co-requisite: ECE 114 or Advisor approval.*

ECE 114 Young Children Practicum

2 Credits (0 Lecture 0 Lab 2 Field Experience);
6 Hrs/Wk (6 Hrs Field Experience)

The student will observe and assist in an approved pre-school or school-age child care 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 practicum 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, PSY 114; Co-requisite: ECE 113.*

ECE 150 Language and Literacy for Young Children

3 Credits (3 Lecture 0 Lab 0 Field Experience)
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 teach 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 198 CDA Prior Learning Experience

Variable Credits (Maximum 9)

An individual with a completed Child Development Associate (CDA) credential may submit documentation for evaluation to receive credit when matriculating into the Early Childhood program.

ECE 199 Apprenticeship

(Prior Learning) (12 Credits)

This catalog listing reflects Central Maine Community College's recognition of appropriate apprenticeship experience and its credit relationship to degree requirements. Credit awards vary and are considered for posting, at the discretion of the College, only after successful completion of the apprenticeship. Documentation of an apprenticeship and its completion are required prior to consideration of credit award. All apprenticeship must be authorized by the Maine Department of Labor, Bureau of Employment Services, Maine State Training and Apprenticeship Council.

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, or Advisor approval.*

ECE 210 Issues in Early Care and Education

3 Credits (3 Lecture 0 Lab 0 Field Experience)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course explores topics such as, but not limited to: children's advocacy, supervision and evaluation of staff and children, state and federal regulations and standards, accreditation, and visions for future programs for children and families. The course will involve discussions, presentations, student research and related projects. *Prerequisites: ECE 100, PSY 114, or Advisor approval.*

ECE 230 Practicum Capstone

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 experience, students will work in an approved early childhood setting under the supervision of an experienced professional. 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 practicum 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: All Early Childhood Courses, except ECE 210 or Advisor approval.*

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.

Course Descriptions

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 155 Psycho/Social Needs of Students

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is designed as an overview of the psychoemotional and social factors that play a role in the student's concept of self as learner. The educational environment will be viewed through the lenses of the teacher and the student, with discussions focused on what classroom practices work and why. Potential educational problems and appropriate interventions will take center stage. The area of student aspirations will also be one of the focal points of the course.

EDU 161 Technology in Education

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This survey course will expose students to the increasing role of technology in education. It will explore application of technology in the teaching/learning process and the appropriateness of applied methodologies. Topical areas to be covered include adaptive equipment, distance education and internet support of academic outcomes.

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.

EDU 261 Fundamentals of Literacy Education

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

In this course, students will examine the fundamentals of literacy and explore the ways in which individuals acquire initial reading skills and understand print across content areas. This course will also examine a variety of pedagogical models commonly found in literacy education to familiarize students with standard practices and procedures. *Prerequisite: Successful completion of ENG 101 or registration in ENG 101.*

EDU 271 Fundamentals of Mathematics Education

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course will provide students with an understanding of the foundation for teaching mathematics in Pre-Kindergarten to Grade 12. The six Principles for school mathematics will be integrated into the five Content Standards of Number and Operations, Algebra, Geometry, Measurement, Data Analysis and Probability, and the five Process Standards of Problem Solving, Reasoning and Proof, Communication, Connections, and Representation. Students will develop activities that promote the understanding of the NCTM (National Council of Mathematics) Standards at the Pre-K to Grade 2, Grades 3 - 5, Grades 6 8, or Grades 9 - 12 level, depending upon their individual need.

EDU 285 The Theory and Practice of Educational Support

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

The capstone seminar is designed for students to demonstrate their knowledge of educational practices, policies and resources. The students will learn to use that knowledge in order to analyze problems, synthesize appropriate actions and evaluate the outcomes of those actions. During the course the students will be required to interact with K-12 school personnel and other

education stakeholders in an interview format. They will then use current educational literature available in libraries to do research on selected issues brought up during their interviews. This course also requires each student to develop a portfolio demonstrating that he/she is fully aware of professional issues and responsibilities.

Electromechanical Technology (ELT)

ELT 102 Electric Motors

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is a study of electric motor theory and operation. Electromechanical principles of motor operation are examined in detail. Single-phase AC Motor types include the Shaded-Pole, Split-Phase, and Capacitor-Start motor. Three-Phase motors applications. Motors are selected for specific applications and motor protection is selected following NEC regulations. Emphasis is placed on trouble shooting, on-sight preventative maintenance, testing, repair, and replacement of electric motors. *Prerequisite: ELT 111.*

ELT 103 Residential Controls

2 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 functioning of electrical devices that are primarily used for manual switching of circuits such as piloted single-pole switches, Eagle three-way switches, and four-way switches. Emphasis is placed on methods of wiring these devices into a wiring system following NEC procedures and interpreting blueprints and schematics. Applications include selecting proper size and type of electrical devices and cables for a particular application. Students will convert electrical plans into physical installations.

ELT 104 Blueprint Reading and Estimation

2 Credits (2 Lecture 0 Lab 0 Shop)
2 Hrs/Wk (2 Hrs. Lecture) *15 wks

This course is a study of electrical prints and electrical estimation. Students will examine residential, commercial, and industrial blueprints in conjunction with regulation that apply from the latest version of the National Electrical Code. Emphasis is placed on examining these prints for the purpose of cost analysis and material ordering.

Course Descriptions

ELT 105 Commercial Wiring and Transformers

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is a study of transformers, associated commercial/industrial wiring, and applicable National Electrical Code (NEC) articles. Emphasis will be placed on practical applications and study of single and three phase connections, polarity testing, use of test equipment to determine shorts, grounds, and opens, transformer types, and code requirements for transformer installations. *Prerequisite:* ELT 111.

ELT 107 Industrial Motor Controls

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is a study of electrical motor controls. Students select I.E.C. and NEMA magnetic starters and overloads to control and protect motors in conjunction with Article 430 of the NEC. Input devices include push buttons and selector switches. Control devices include motor starters, On-delay timers, and Off-delay timers. Typical circuits include Stop/Start, Jog, Sequence, Interlock, and Time-control. Particular emphasis is placed on ladder diagrams, designing and wiring control circuits. *Prerequisite:* ELT 111.

ELT 108 Basic Electronics

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is designed to serve as an introduction to active electronic devices. Satisfactory completion will help satisfy state of Maine electricians licensing requirements. The student will review major DC and AC concepts that will be needed for topics to be covered in this course. Emphasis will be placed on superposition, Norton, and Thevenin's theorems used in analyzing and simplifying electronic circuits. Particular emphasis will be placed on semiconductor theory, rectification, filters, limiters, clippers, transistor current sources and switches. The course will provide a foundation for future studies in the electrical and electronics areas. *Prerequisite:* ELT 111.

ELT 109 National Electrical Code I

2 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 111 Electricity I

4 Credits (3 Lecture 1 Lab 0 Shop)
5 Hrs/Wk (3 Hrs. Lecture 2 Hrs. Lab) *15 wks

This is the student's first course in electronics and covers the concepts of mass, work, and energy. Atomic structure and units of electrical charge are covered as they apply to D.C. circuits. Necessary test equipment including voltmeters, ammeters, ohmmeters, and oscilloscopes will be covered in this unit. 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. *Co-requisite:* MAT 100 or 122.

ELT 112 Electricity II

4 Credits (3 Lecture 1 Lab 0 Shop)
5 Hrs/Wk (3 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. *Prerequisites:* ELT 111, and MAT 100 or 122.

ELT 113 Measurement and Control Systems

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is designed to prepare the student in the areas of logical analysis, troubleshooting technique, maintenance, and selection of industrial primary devices and transmitters used

for the measurement and control of process variables. Particular emphasis is placed on the theory and application of pressure, flow, level, and temperature measurements. Processes will be analyzed in terms of process dead time and capacity to determine optimum loop turning parameters. Selected labs using Foxboro instrumentation will be used throughout to create real and simulated process control systems. *Prerequisite:* ELT 112.

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 system following N.E.C. 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 time-clocks, 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. *Co-requisite:* ELT 111.

ELT 126 Electrical Controls II

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is a study of basic control concepts and their applications to automated systems. This includes: single and three phase motors, manual and magnetic motor starters, push button circuits, and oil burner controls. Particular emphasis is on: three phase principles and calculations, single & 3 phase motor connections, basic motor and heating control circuits and article 430 of the NEC. Interpreting blueprints and schematics. Applications include: testing 3 phase motors and connecting them to basic motor control circuits. Testing and troubleshooting single phase motors. Connecting and troubleshooting oil burner control circuits. Interpreting motor control catalogs. *Prerequisite:* ELT 123.

Course Descriptions

ELT 145 Electronic Devices 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, methods of biasing, and selection of replacement devices. Diode applications include filtered rectifiers, limiters, clampers, and Zener voltage regulation. Bipolar transistor applications include current sources, transistor switch, and the CE amplifier. *Co-requisite: ELT 112.*

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. *Co-requisite: ELT 111.*

ELT 211 Control Systems

3 Credits (2 lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

This course is designed to provide an introduction to motors, industrial controls and programmable controllers. Full voltage and IEC magnetic starters and overload units are selected for a particular motor according to NEC guidelines. Applications include: Stop-Start, jog, forward-reverse, and timer circuits. Ladder, wiring and PLC diagrams are generated. The Allen-Bradley SLC-500 family line of programmable controller is used. Instruction, hardware, and programming of PLC are examined. Particular emphasis placed on wiring circuits and their applications to programmable controllers. *Co-requisites: ELT 112 and 153.*

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, pushbuttons, 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 112, 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 RSLinx 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. *Prerequisites: 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, maintenance, and selection of industrial primary devices and transmitters used for the measurement and control of process variables. The selection, sizing, and calibration of devices for measuring steam, liquid and gas flows will be introduced to the student in class and lab. Particular emphasis is placed on the theory and application of pressure, flow, level, density, humidity, and temperature measurements. *Prerequisites: ELT 112 and ELT 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 Process Measurement and explores the characteristics of common feedback control loops, mechanisms, and the application of various control algorithms. Processes will be analyzed in terms of process dead time and capacity to determine optimum loop tuning parameters. Advanced control techniques such as feed forward, ratio, cascade, and auto-selector will be introduced to the student. Control valve sizing, selection, and typical applications will also be discussed. Selected labs using Foxboro instrumentation will be used throughout to create real and simulated process control systems. The student will be afforded the opportunity to demonstrate proficiency in 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 112 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 noninverting amplifiers; summing amplifiers; signal; active filters; comparators; integrators and differentiators; logarithmic amplifiers; oscillators; and 555 ICs. *Prerequisite: ELT 245.*

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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. *Co-requisite: ELT-221.*

ELT 275 Robotics and Control Systems

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course in robotics focuses on advanced applications of robotics and automation in industry. Students will write V+ programs to control a SCARA (Selective Compliance Assembly Robotic Arm) industrial robot. They will also use digital and analog programmable logic controllers in conjunction with robot I/O to form complete workcells. Man Machine Interface (MMI) 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 271.*

ELT 296 Independent Study

Variable Credit (0-6) Number of hours per week to be determined by Advisor

The purpose of Independent Study is to provide students in the senior year of their education: (1) the flexibility of choosing an area of preference in their major field of study; (2) the opportunity to explore their abilities in relation to actual job performance; and (3) the ability to observe other people working in a variety of occupations, in lieu of required ELT courses. The combination of work and study contributes to a greater sense of responsibility and dependence on one's own judgment. This provision allows for a performance contract between the student and a department instructor to reach mutually agreed upon goals. *Prerequisite: Approval of ELT Department Chairperson and Faculty advisor.*

English (ENG)

ENG 021 Basic Writing

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

An introductory course designed to help students achieve a minimal competency in writing. Specific skills covered include planning, organizing, and rudimentary sentence structure and mechanics. Students will use computer technology to produce their final drafts. Open only to matriculated students identified through CMCC's placement test. Successful completion of this course and minimum competency in reading will enable students to enroll in ENG 101. This course is graded on a Pass/Fail basis.

ENG 030 Reading Workshop

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

Reading Workshop is an intermediate-level, intensive reading course. The course meets 3 hours/week for one semester. Students will work on individualized work plans, word recognition skills and vocabulary development. Skills work will focus on identifying the main idea and supporting details of paragraphs and short essays. Basic group discussion skills will be developed. Open only to matriculated students identified through CMCC's placement test.

ENG 050 Introduction to Academic Reading

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

Introduction to Academic Reading is an intensive course designed to prepare students for college-level reading. The course meets 3 hours/week and places college-level demands on students to read and respond to reading both inside and outside of class. Students will develop critical reading skills and learn to apply their understanding of texts to student-led classroom discussion and oral presentations. Emphasis will be placed on the reading of literature, essays and college-level textbooks. Open only to matriculated students identified through CMCC's placement test.

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 using a computer network. *Prerequisite: Successful completion of both a) CMCC writing assessment, or ESL 101 or Department approval and b) CMCC reading assessment, or ENG 050.*

ENG 107 College Writing: TTV

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is designed to help students improve their writing ability through concentration on the writing processes: prewriting, writing and revision. Other concerns of the writer, particularly audience, diction and correctness, will be addressed. Research techniques, library orientation and oral presentation of student writing are also included. Research paper required. *Prerequisite: Enrollment in the Verizon NextStep Program.*

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: Successful Completion of ENG 101 (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

Course Descriptions

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. *Prerequisite: Successful Completion of ENG 101 (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: ENG 101.*

ENG 123 Introduction to Mystery Literature

3 Credits

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 (C or better); Co-requisites: BIO 107 and 108 Intro to Forensic Science; LCS 100 Learning Communities Seminar.*

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 (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: ENG 101.*

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 and journalists—will connect the classroom with the newsroom. *Prerequisite: ENG 101.*

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. *Prerequisite: ENG 101.*

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. *Prerequisite: ENG 101.*

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 (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. *Prerequisite: ENG 101.*

Course Descriptions

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. *Prerequisite: ENG 101.*

ENG 227 English Composition II (TTV)

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course introduces students to both college-level informational texts and British and American literature as a focus for writing. Informational prose readings deal with interdisciplinary themes, such as interpersonal issues, environmental issues, social and civil rights issues, and labor issues. Selected literature exposes students to a range of literary styles and forms. In addition, the course introduces students to the language of literature, and the fundamentals of literary analysis. A final research project will be assigned. *Prerequisite: ENG 101.*

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 (C or better).*

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 lit, Renaissance lit, lit 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 Shake-

spere, 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 (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 or Department Chair approval.*

English as a Second Language (ESL)

English as a Second Language (ESL)

Placement in ESL courses is based on the student's scores on CMCC'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. *Enrollment is limited to students taking ESL courses.*

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.

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.

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.

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.

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.

ESL 101 Academic Writing and Grammar

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

A continuation of 070 with a focus on developing advanced academic writing skills, in preparation for ENG 101. 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.

Course Descriptions

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.

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.

ESL 104 Academic Writing II

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is a continuation of ESL 101, with an emphasis on developing proficiency in advanced grammar structures and usage, including prepositions, phrasal verbs, adverbs and adjectives, comparatives and superlatives, perfect tenses, modals, gerunds and infinitives. *Prerequisite:* Completion of ESL 101

Automotive - 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) *15 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) *15 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 190, FOA 191 or Faculty approval.

FOA 131 Field Experience

2 Credits (0 Lecture 0 Lab 2 Shop)
4 Hrs/Wk (4 Hrs. Shop) *15 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.

FOA 151 Field Experience

5 Credits (0 Lecture 0 Lab 5 Shop)
15 Hrs/Wk (15 Hrs. Shop) *15 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) *15 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) *15 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 or Faculty approval.

FOA 191 Field Experience

5 Credits (0 Lecture 0 Lab 5 Shop)
15 Hrs/Wk (15 Hrs. Shop) *15 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) *15 wks

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 270.

FOA 240 Automatic/Manual Transmission

5 Credits (3 Lecture 0 Lab 2 Shop)
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) *15 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 transaxles; diagnosis; disassembly; repair and reassembly. *Prerequisites:* FOA 270, FOA 271 or Faculty approval.

Course Descriptions

FOA 270 Computer Controlled Systems, Engine Performance

5 Credits (3 Lecture 0 Lab 2 Shop)
9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) *15 wks

This course covers the fundamentals of electronic control systems, electronic control system components, automotive microcomputer systems, and electronic engine control strategies. Also covered will be Ford's EEC V System and engine drive-ability diagnosis.

FOA 271 Field Experience

5 Credits (3 Lecture 0 Lab 2 Shop) 9 Hrs/Wk (3 Hrs. Lecture 6 Hrs. Shop) *15 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 240. *Prerequisite:* FOA 240.

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 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 Arts/Printing Technology (GAT)

GAT 100 Introduction to Printing

2 Credits (1 Lecture 1 Lab 0 Shop) 3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course will explore the exciting industry of commercial printing. All aspects of this amazing industry will be presented from its roots to the present technology. The students will generate images by traditional and digital means and produce practical printed and bound products. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom.

GAT 104 Typography

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hr/Wk (1 Hr. Lecture) *15 wks

This course emphasizes the study of typography and how it relates to the preparation of desktop published documents. Utilizing the Macintosh desktop publishing system, students will develop the ability to design and create layouts that incorporate sound typographic principles.

GAT 105 Copy Preparation Operations must be taken concurrently. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Co-requisite:* GAT 105.

GAT 105 Introduction to Digital Page Layout

2 Credits (2 Lecture 0 Lab 0 Shop)
2 Hrs/Wk (2 Hrs. Lecture) *15 wks

A study of the Macintosh computer and how it is utilized in the graphic arts/desktop publishing environment in the preparation of electronic layouts. Through a study of the operating system, font management, introduction to page layout software, word processing file formats, and graphic file integration, students will develop skills and knowledge required to produce electronic page layouts. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Co-requisite:* GAT 104.

GAT 106 Design & Layout I

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

An introduction to Adobe Illustrator and the basics of graphic design that will be applied to solve a variety of practical layout problems and the planning for their printing production. The generation of thumbnail, rough and comprehensive layouts carried to the electronic mechanical stage will develop a professional degree of skill and a sound understanding of the procedures used in this aspect of prepress. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisites:* GAT 104 and GAT 105.

GAT 108 Introduction to Acrobat Professional

3 Credit (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (3 Hrs. Lecture 2 Hrs. Lab) *15 wks

This course introduces the student to Adobe Acrobat, a well known computer program that converts any document, both text and graphics, to PDF (portable document format). PDF files are used over the web and in the printing industry as a means of transporting large amounts of data. Using a mixture of class/lecture and lab activities, students will convert a variety of files to PDF format as well as create bookmarks and links within the PDF document. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom.

Course Descriptions

dent work outside the classroom. *Prerequisites:* A working knowledge of a computer and its operating system.

GAT 111 Offset Preparation

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

This course combines practical "hands on" lab experiences and related theory dealing with basic graphic arts line photography and image assembly techniques. Course of study includes process camera/darkroom techniques, film, chemistry, copy reproduction control, basic image assembly techniques for offset duplicators, job proofing, offset plating techniques and shop/lab safety. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom.

GAT 113 Advanced Image Assembly

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

This course combines practical "hands on" lab experiences and related theory dealing with job planning, production procedures and both manual and digital imposition of single, multiple and process color images for sheet and web fed offset lithographic presswork. Various layout, work flow and equipment considerations are employed as well as image contacting, registration systems, proofing and quality control. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisite:* GAT 111 or Faculty approval.

GAT 131 Duplicator and Finishing Operations

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

This course is designed to familiarize the student with the pressroom. Areas of study and activity include identification of supplies, preparing paper for printing, operation and maintenance of offset duplicators and bindery operations. Emphasis on safe work habits is stressed throughout the course. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom.

GAT 132 Advanced Duplicator Operation

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

This course is designed for the student who has an interest in presswork and bindery. The causes of duplicator and bindery problems, proper adjustments, and maintenance of equipment are major areas of instruction. This course also includes troubleshooting the problems associated with paper, ink, and chemicals supplies. Good safe work habits are emphasized throughout the course. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisite:* GAT 131 or Faculty approval.

GAT 141 Letterpress Printing

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is designed to familiarize the student with letterpress printing principles, platen press operation, rotary press operation, and related specialty operations. The course presents the student with the methods of proofing and printing. Safe work habits are emphasized throughout the course. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom.

GAT 151 Screen Printing

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

The student experiences lab work and study involving hand-cut and photographically prepared indirect and direct stencils, screen materials, and ink and its relationship to substrates. The course presents an industrial approach to screen-printing. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisite:* GAT 111 or Faculty approval.

GAT 155 Electronic Publication Design

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

In this course, students study the technical and creative requirements of an industry standard page layout program. After reviewing the fundamentals, students study multiple page document setup, master pages, style sheets, text editing and preflighting. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisites:* GAT 104 and GAT 105 or faculty approval.

GAT 176 Photoshop I

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

A course designed to introduce the related theory and lab experiences involved in line and grayscale digital imaging for offset lithographic reproduction using Adobe Photoshop. The effective use of desktop scanners, densitometers and Photoshop's tools, palettes, plug ins, modes, path, layers and masks will be discussed and utilized within the course content. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisites:* GAT 111 or Faculty approval.

GAT 177 Photoshop II

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

An advanced course in the related theory and lab experiences involved in digital color imaging for offset lithographic, web and multi media reproduction using Adobe Photoshop. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisite:* GAT 176 or Faculty approval.

GAT 192 Production Experience

Prepress (Certificate Program) OR GAT 193 Production Experience-Press/Bindery (Certificate Program)

6 Credits (0 Lecture 0 Lab 6 Shop)
18 Hrs/Wk (18 Hrs. Shop) *15 wks

This certificate level program requirement is an in-school work experience that exposes the student to accountability for time, quality, waste and plant maintenance in meeting production demands in either pre-press or press/bindery areas of employment. Live work assignments are obtained by the student from a production area instructor and student performance is evaluated. The course is designed to provide closely supervised production experiences of skills and concepts which were introduced in the first semester. This course also introduces the student to personnel policies, control and delivery, material specification, procurement and inventory, job tickets, employee evaluation, field trip reporting and career/employment preparation. *Prerequisite:* Completion of 10 credit hours in GAT program and 6 hours of General Ed.

Course Descriptions

GAT 204 Design and Layout II

3 Credits (2 Lecture 1 Lab 0 Shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs. Lab) *15 wks

The student will apply the principles of typography, color theory and electronic illustration to the solution of advanced design problems, including identity design. In class critiques, discussion and analysis of work submitted will lead to the development of sound design practices and the ability to create designs that meet the requirements of a digital printing environment. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisite:* GAT 106.

GAT 218 Digital Photography and Imaging

3 credits (2 lecture 2 lab 0 shop)
4 Hrs/Wk (2 hr Lecture 2 Hrs. Lab) *15 wks

A course designed to support prepress and Web page development in a production setting. It introduces digital and video camera operations, its functions, processing, planning and the production of photographic images and video. Other areas covered through study and lab assignments are camera and computer operations, exposure metering techniques, lighting conditions, storyboarding, composition and various applications like Photoshop. The student must have access to a 4 megapixel or higher digital camera. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom.

GAT 219 Introduction to New Media

3 credits (2 lecture 1 lab 0 shop)
4 Hrs/Wk (2 Hrs. Lecture 2 Hrs Lab) *15 wks

This course introduces the student to Dreamweaver, a family of computer programs for Web application and development. The goal of this course is to presents an introduction to the converting (repurposing) of graphic files used in a commercial printing operation to build and maintain Web site. Software used includes Dreamweaver and Flash with photos and video. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisite:* GAT 218 *Digital Photography or Faculty approval.*

GAT 233 Litho Press and Bindery Theory

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is designed to give the student an insight to the problems that occur in setting up, operating, and maintaining a medium sized offset press. Bindery methods, operations, and safety procedures are also presented and practiced. *Prerequisite:* GAT 132 or *Faculty approval.*

GAT 234 Litho Press and Bindery Operations

2 Credits (1 Lecture 1 Lab 0 Shop)
3 Hrs/Wk (1 Hr. Lecture 2 Hrs. Lab) *15 wks

This course is designed for the student who has an interest in operating medium-sized sheet fed presses and small web presses. Bindery methods, operations, and safety procedures are also presented and practiced. Students will be expected to complete lab assignments in a "hands on" lab environment as well as independent work outside the classroom. *Prerequisites:* GAT 131 and GAT 132 or *Faculty approval.*

GAT 281 Introduction to Printing Estimating

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is intended to acquaint the student with the complexities of developing pricing in the printing industry. Students will apply past knowledge gained in a production setting to analyze, plan, schedule and price printing requests. Course content also includes the application of computers, marketing and management styles, basic hourly rate costs methods and production standards to complete an estimate. *Co-requisite:* GAT 285 or 286, or *Faculty approval.*

GAT 285 Production Experience - Prepress OR GAT 286 Production Experience-Press/Bindery

6 Credits (0 Lecture 0 Lab 6 Shop)
18 Hrs/Wk (18 Hrs. Shop) *15 wks

This requirement is an in-school work experience that exposes the student to accountability for time, quality, waste and plant maintenance in meeting production demands in the prepress (or press-bindery) area of employment. Live work assignments are obtained by the student from a production area instructor and student performance is evaluated as work is executed. This course also introduces the student to personnel policies, production scheduling, control and delivery, material specification, procurement and inventory, job tickets computing production cost,

employee evaluation, field trip reporting and career/ employment preparation. *Prerequisite:* Completion of twenty-one credit hours in GAT program or *Faculty approval. Prerequisites for GAT 285 are: GAT 113, 155, and 176.*

GAT 292 Industrial Experience (inhouse) Pre-press OR GAT 294 Industrial Experience (inhouse) Press/Bindery

12 Credits (0 Lecture 0 Lab 12 Shop)
36 Hrs/Wk (36 Hrs. Shop) *15 wks

This program requirement provides further skill development and refinement through work experience in the College's Graphic Arts Department. *Prerequisite:* GAT 285 or GAT 286 and *Faculty approval.*

GAT 293 Industrial (Field) Experience

12 Credits (0 Lecture Lab 12 Shop)
36 Hrs/Wk (36 Hrs. Shop) *15 wks

This program requirement provides further skill development and refinement through work experience in the graphic arts industry. The student must complete a fifteen week block of successful full-time employment at an approved work site within the industry. Students are required to complete and submit weekly reports and two evaluations from their supervisor. *Prerequisite:* GAT 285 or 286 and *Faculty approval.*

GAT 296 Independent Study

(Maximum 3 Credits) Variable Credit

This provision allows for a performance contract between student and Department faculty to reach mutually agreed upon goals. Credit earned and grade are 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.

History (HIS)

HIS 110 Survey of American History

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 the present will be covered with particular focus on critical analysis of historical events.

Course Descriptions

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 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 student to the political, military, economic and social stresses of the Cold War era that lasted from the end of World War II until 1989. Emphasis will be placed on such developments as the Cold War psyche, political discourse within 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 or permission of the instructor.*

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: ENG 101 College Writing. (C or higher)*

Course Descriptions

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 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.

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. *Prerequisite:* Completion of HUS 112 with a grade of C or better or permission of the instructor.

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 caseload 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:* Completion of HUS 112 with a grade of C or better or permission of the instructor.

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:* Completion of HUS 112, HUS 155, PSY 101, PSY 116, PSY 151 and SOC 200. *Co-requisites:* HUS 153, PSY 111, and SOC 201, with a grade of C or better, and permission of the program director.

HUS 251 Human Services Practicum II

4 Credits (1 Lecture 0 Lab 3 Clinical)
10 Hrs/Wk (1 Hr. Lec. 9Hrs. 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; *Co-requisites:* COM 100 and SOC 220, with a "C" or better, and permission of the program director.

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 in 20th century fiction and film, and how thinkers have examined the implications of living in a technological society. *Prerequisite:* ENG 101.

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:* ENG 101 (C or higher).

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

Course Descriptions

consider each culture in terms of the dominant characteristics of its origins, worldview, 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: ENG 101, College Writing (C or higher).*

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 (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: ENG 101 (C or higher).*

Learning Resources (LER)

LER 010 Study Skills Seminar

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hr/Wk (1 Hr. Lecture) *15 wks

The Study Skills Seminar course is designed to improve learning skills in a wide variety of academic competencies and assist students in reaching their academic potential. The seminar course strengthens a student's ability to learn by teaching strategies focused on critical thinking, plan-

ning and organizational topics while developing and reinforcing study skills. The comprehensive curriculum is designed to help students achieve better grades through more effective learning and promote a successful educational experience at Central Maine Community College. Projects and activities are based on in-class activities, reading assignments and other sources.

LER 011 Orientation Seminar

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hr/Wk (1 Hr. Lecture) *15 wks

This seminar is designed to assist Bell Atlantic/NEXT STEP (Telecommunications Technology) students to reach their academic potential and experience success at Central Maine Community College. Emphasis will be on the college environment and services, study/learning skills and self-awareness and self development. *Prerequisite: Bell Atlantic participant..*

LER 025 Master Student Seminar

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course provides both first-time and returning students with specific skills and strategies needed to accomplish their academic goals with a higher degree of success. Through lectures, readings, discussions, group exercises, and guest speakers, students will be introduced to a wide variety of topics critical to academic success, such as; time management, setting priorities, learning styles analysis, campus and community resources, campus policies, critical thinking, diversity, motivation, and test-taking skills. The focus of this course is on assisting students as they develop academic skills, competence, and increased confidence. *Prerequisite: TRIO participant.*

LER100: First-Year Seminar

1 Credit

This course will provide first-year students with the information they need to be successful at CMCC. Through both classroom and campus activities students will become familiar with advising sources, campus services, student groups, and transfer information. In addition, students will begin to explore majors and career options and, in the process, will be learning and practicing a series of academic skills that are transferable to the workplace. *Current prerequisite: Course limited to Associate of Arts students.*

LER 150 Information Technology

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course provides students with instruction and practice in identifying, locating, evaluating, and utilizing information. The course focuses on both the traditional and newest methods of information retrieval, including the Internet. This course is designed to be especially helpful to those returning to the academic arena. *Prerequisites: ENG 101 and BCA 120 or Faculty approval.*

Machine Tool Technology (MTT)

MTT 103 Print Reading and Sketching

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Week (3 Hrs. Lecture)

This course is designed to teach the fundamentals of print reading and sketching. Throughout the course assignments students will adhere to current ASME or ANSI standards. The students will be taught the basics of orthographic projection, pictorial sketching, and print reading through a combination of sketching and textbook assignments.

MTT 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 is designed to familiarize the student with the lathe and its functions. Each student will be taught safety precautions, setup and operating procedures for facing, turning, drilling and boring. Tool geometry and the use of measuring tools related to the lathe operations will also be covered.

MTT 115 Introduction to 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 is the foundation of computer numerical control, which includes G codes, M codes, and the study of a glossary of terms related to CNC. Students will learn programming basics that include but are not limited to linear moves, circular moves, rapids, contours, slots, drilling, threading, chamfers, and canned cycles. The student will write two machining center and two lathe programs using manual programming. These programs will be run by the students when they take MTT 124 Applied

Course Descriptions

Computer Numerical Control in the second semester. *Prerequisite:* MTT 111, 116, 117 or faculty approval.

MTT 116 Milling & Grinding

2 Credits

This course will introduce the student to the set up and operation of vertical milling machines and surface grinders. Calculation of milling machine feeds and speeds. Instruction on grinding wheel selection, ring testing, and proper wheel installation will be given. The use of hand tools and measuring tools that relate to milling and surface grinding will be taught. Layout of stock, and inspection procedures related to both grinding and milling will be introduced. Safety precautions for all machines and procedures will be emphasized.

MTT 117 CNC Operations

2 Credits

The students will setup and operate the CNC vertical machining centers. They will align the vise jaw within .001 of an inch and preset all the tooling. Tools will then be loaded into the appropriate holders and the preset values will be recorded in the height offsets. The program reference zero will be picked up and recorded in the work offset. The program will then be loaded to the Fanuc control and the setup will begin. Each tool will be cycled through and offset adjustments will be made. Once the part is finished a first piece inspection will be completed to make sure the part is to print specifications. A short production run will occur after the first piece inspection. Numerical control machine orientation and safe work practices will be covered. Each student will setup and operate two CNC lathes and two CNC machining centers.

MTT 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 covers the principles of single point threading on the lathe. Methods of producing both external and internal sixty degree screw thread forms will be demonstrated. Methods of measuring screw threads utilizing the 3 wire method and thread gages will be taught. *Prerequisite:* MTT 111 or Faculty approval.

MTT 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

Students will use different types of work holding devices including vises, vee blocks, angle plates and table setups. Machine maintenance schedules are explored and practiced. The students will use a variety of carbide and high speed tooling to make parts that will be assembled as a complete component. Students will be using quality control techniques to check squareness, parallelism, and hole to hole locations of their manufactured parts. *Prerequisite:* MTT 116 or faculty approval.

MTT 123 Intermediate Grinding

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 is designed to expand upon the grinding skills and technical knowledge acquired in Grinding I. Students will learn to grind parallel, square and to specific dimensions with +/- .001 tolerance. Students will make projects from tool steel that will be hardened and precision ground to a fine finish. This course will include the introduction of the Blanchard grinder and its use. Instruction on radial Drill will be given along with instruction on precision gage blocks and reaming and tapping of holes. *Prerequisite:* MTT 113 or Faculty approval.

MTT 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

Students will build upon the MTT 115 and 117 courses taken in the fall. Programs written by the students in the 115 class will be set-up, proved out, and run in MTT 124. Students will be introduced to more programming techniques which will give them the skills to try the NIMS level 1 CNC Milling and level 1 CNC Turning parts. Students will also be introduced to editing programs for errors, daily up keep of machines, along with other basic shop activities that happen during a normal shop day. *Prerequisite:* MTT 115 and 117 or faculty approval.

MTT 204 Geometric Dimensioning and Tolerancing

1 Credit (1 Lecture 0 Lab 0 Shop)

1 Hr/Wk (1 Hr. Lecture) *15 wks

This course is designed to introduce the students to the basic principles of geometry dimensioning & tolerancing related to the machine tool industry. The content of this course is based on the current standards set by the American National Standards Institute (ANSI) 14.5 M-1994. *Prerequisite:* MTT 103

MTT 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 covers methods of machining 29 degree Acme single and multiple start screw threads, methods of machining and measuring tapers, and the use of the steady rest will be demonstrated. The use of soft jaws will be emphasized during this course. *Prerequisite:* MTT 121 or Faculty approval.

MTT 212 Circular 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 introduces the student to machine maintenance and care. The student will be responsible for machine maintenance and care. The student will perform more complex milling setups including dividing head and rotary table work. The students will face mill parts using carbide shell mills. The setup and broaching of a keyway to print specifications will be covered. An introduction to Lean Manufacturing will be applied. *Prerequisite:* MTT 122 or faculty approval.

MTT 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 covers computer numerical control programming with the aid of a computer using Mastercam software. The student will input information into the computer that will generate code for the computer numerical control machines. Circular interpolation, canned cycles, thread codes and tool library data will be introduced to the student. When the students complete their program, they will manufacture complex parts on the computer numerical control machining centers and lathes. *Prerequisite:* MTT 115, 117 and 124 or faculty approval.

Course Descriptions

MTT 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 tool making. 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. *Prerequisites:* MTT 123, MTT 211, MTT 212 or Faculty approval.

MTT 221 Advanced 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 covers the machinability of metals, carbide identification systems, speeds and feeds for carbide tooling and silver soldering of carbide tooling. Metric threading and eccentric turning will be demonstrated by the students. *Prerequisite:* MTT 211 or Faculty approval.

MTT 222 Advanced 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

Advanced milling machining processes are covered in this course including angular, contour, and slotting operations. Precision reaming operations with hole tolerances of + .001 of an inch will be performed. Parts will be machined square to a tolerance of .003 over a two inch surface and parallel within .002 of an inch. Hole to hole locations will be machined with a tolerance of + .005 of an inch. Holes will be bored using the offset boring head to a tolerance of + .001 of an inch. The student will cut gears using both direct and simple indexing to perform this task. Each student will produce a NIMS level 1 vertical milling part and if successful will do the online test to earn a NIMS credential. *Prerequisite:* MTT 212 or faculty approval.

MTT 227 Advanced Toolmaking Techniques

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 expand upon the toolmaking skills acquired in MTT 217 Introduction to Toolmaking. More in depth instruction on the function and construction of jigs, fixtures and dies will be covered along with the study of plastic injection molds. *Prerequisite:* MTT 217 or Faculty approval.

MTT 228 Metallurgy

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hr/Wk (1 Lecture) *15 wks

This course develops familiarization with the various ferrous and non-ferrous metals used in the machine tool industry. Various methods of heat treatment of tool steel will be discussed. The use of alternative materials such as lightweight carbon fiber and plastics will also be taught.

MTT 229 Advanced CNC Part II

2 Credits
This course is a continuation of the MTT 214 class. Students will continue building their skill set using Master Cam by programming more complex parts. Students will continue to build upon their skill set with the set-up and running on CNC machines with more complex parts and work holding techniques. An emphasis on reduced set-up times and more efficient machining times will be introduced. Students will have one instructor led project that will require working in small groups. Outside of this project students will have to program and run a minimum of one CNC Milling part as well as one CNC Lathe part. These projects can be chosen by the students with faculty approval, or the instructor can assign projects if necessary. *Prerequisite:* MTT 115, 117, 124, and 214 or faculty approval.

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. *Prerequisite:* Minimum 5th percentile on Arithmetic Assessment and Placement Test.

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, polynomials, factoring, rational expressions, systems of equations, graphs and quadratic

equations. *Prerequisite:* MAT 030 or above 40th percentile on Arithmetic and 20th on Algebra Assessment and Placement Tests, or Math SAT 480.

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. *Prerequisite(s):* MAT 050 or HS Algebra I (C or better) and minimum 40th percentiles on Arithmetic and Algebra Assessment and Placement Tests, or Math SAT 480.

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. *Prerequisite:* MAT 030 or HS Algebra I (C or better) and minimum 40th percentile on Arithmetic and 20th percentile on Algebra Assessment and Placement Tests, or Math SAT 480.

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) Sets-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) Counting - ways of counting, sequences, combinations and permutations; (6) Probability - finite and conditional probability; (7) Proportion and variation. *Prerequisite:* MAT 050 or HS Algebra I (C or better) and minimum 40th percentiles on Arithmetic and Algebra Assessment & Placement Tests, or Math SAT 480.

Course Descriptions

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. *Prerequisite:* MAT 100 or Algebra I and II (C or better) and minimum 50th percentiles on Arithmetic and Algebra Assessment and Placements Tests, or Math SAT 480.

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, exponential and logarithmic functions and basic statistics will also be covered. *Prerequisite(s):* MAT 100 or minimum 75th percentiles on Arithmetic and Algebra Assessment and Placement Tests, and Algebra I and II (C or better), or math SAT 480.

MAT 125 Finite Mathematics

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. *The math prerequisite is MAT 100 (intermediate algebra) or the appropriate combination of Algebra II, SAT scores, and Accuplacer placement scores.*

MAT 130 Technical Mathematics I

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 Hrs. Lecture) *15 wks

A mathematics course designed to prepare students for solving problems in the telecommunications field. Topics included are: number systems, a review of algebra, linear equations and dimensional analysis, functions and graphs, geometry, trigonometry, vectors and complex numbers. Also included will be the use of a scientific calculator and P.C. based math software. *Prerequisites:* TTV matriculant and ACT Math 34.

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. *Prerequisite:* MAT 122 (C or better).

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. *Prerequisite(s):* MAT 100 or minimum 50th percentiles on Arithmetic and Algebra Assessment and Placement Tests, and Algebra I and II (C or better), or Math SAT 480.

MAT 230 Technical Mathematics II

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 Hrs. Lecture) *15 wks

A continuation of MAT 130. Topics included are: oblique triangles, trigonometric equations and identities, exponents and radicals, complex numbers, exponential and logarithmic functions, statistics, analytic geometry, and an introduction to calculus. *Prerequisite:* MAT 130 or Faculty approval.

MAT 280 Calculus

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course includes an investigation of limits and the derivative, applied problems in differentiation, i.e. analytical geometry, trigonometry, other related rates, maxima, minima and integration. In addition, an investigation of various applications of the integral, including numerical integration, areas and volumes by integration and the trapezoidal rule. *Prerequisite:* MAT 132.

Medical Assistant (MEA)

MEA 200 Medical Administrative Procedures

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 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, 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. *Prerequisites* MEA 200.

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. *Co-requisite* MEA 220.

Course Descriptions

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. *Co-requisite* MEA 221.

MEA 224 Pharmacology for Medical Assistants

2 Credits

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 mathematic skills required to calculate drug dosages.

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; Co-requisite* 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. *Co-requisite* MEA 230.

MEA 266 Medical Assistant Externship

6 Credits (0 Lecture 0 Lab 6 Clinical)

Prerequisite: Successful completion of MEA 222 and MEA 221. Co-requisite: the prescribed third 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 the spring semester in local physician's offices or hospitals observing and participating in basic procedures used in the operation of the clinical, laboratory, and secretarial areas. *Note: this course eliminates MEA 263 and 264.*

Medical Coding (MCO)

MCO 121 Medical Diagnosis (ICD-9) Coding

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course covers ICD-9-CM diagnostic coding. This course will facilitate coding knowledge and enhance coding skills by addressing specific coding issues within particular areas. Medical coding is defined as the translation of diagnoses, procedures, services, and supplies into numeric and/or alphanumeric components for statistical reporting and reimbursement purposes. *Prerequisite: MET 111.*

MCO 125 Medical Procedure Coding

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course covers CPT-4 Procedural coding. This course will facilitate coding knowledge and enhance coding skills by addressing specific coding issues within particular areas. CPT 4 coding is a systematic listing and coding of procedures and services performed by physicians. Each procedure or service is identified with a five digit code. With this coding course, the procedure or service rendered by the physician is accurately identified. This course will also include HCPSC injectable drugs, ambulance services, prosthetic devices and selected provider services. *Prerequisite: MET 101 Medical Terminology.*

Medical Transcription (MET)

MET 101 Medical Transcription I

4 Credits (4 Lecture 0 Lab 0 Shop) 4 Hrs/Wk (4 Hrs. Lecture) *15 wks

This is an entry level transcription course designed to introduce students to basic transcription technology. The student will become familiar with applying medical terminology through the use of tapes in the computer lab. *Prerequisite: MET 111, BCA 101 or permission of instructor; Co-requisite: MET 150.*

MET 102 Medical Transcription II

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 Hrs. Lecture) *15 wks

This course will familiarize students with the various resources available to the medical transcriptionist including chart structures and styles, available technology, and the business perspective of the transcription industry. This course will also focus on medical transcription specialties such as those used by an emergency department, operating room, psychiatry, neurology, orthopedics, ophthalmology, etc. *Prerequisite: MET 101; Co-requisite: MET 151 or permission of instructor.*

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.

MET 150 Medical Specialties I

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course will prepare the student for the role transition from the classroom to the practicum setting of Medical Specialties II. The focus will be on the pathophysiology of disease, pharmacology, and understanding the various settings in which medical transcription is used.

MET 151 Medical Specialties II

3 Credits (3 Lecture 0 Lab 0 Shop) 3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course will complete those systems for pathophysiology of disease not covered in MET 150 (Medical Specialties I). This course will require a term paper on psychiatric terminology, pathophysiology

Course Descriptions

ology and procedure. There will be an introduction to the types of settings where medical transcriptionists are employed. Site visits will be arranged as available. *Prerequisite: MET 150.*

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 Appreciate 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 during the course of the semester, and write and speak coherently about jazz, using appropriate, basic terminology.

Nursing (NUR)

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; Co-requisites: BIO 115, 116; ENG 101.*

NUR 115 Medication Preparation, Administration and Dosage Calculations

1 Credit (1 Lecture 0 Lab 0 Clinical)
1 Hr/Wk (1 Hr. Lecutre) *15 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; Co-requisites: BIO 115, 116, ENG 101; 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 license and ENG 101, BIO 115 and 116; Co-requisites: PSY 101, BIO 117, 118.*

Students are reminded that they are responsible for prior knowledge. Supervised clinical experiences take place on medical-surgical nursing units within a structured health care setting. Pre and Post conferences are designed to assist the student to further utilize the nursing process and provide nursing care.

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/childrearing 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; Co-requisites: BIO 115, 116, 117, 118, PSY 101.*

NUR 134 Clinical Practicum

2 Credits (.5 Lecture 0 Lab 1.5 Clinical)
5 Hrs/Wk (.5 Lecture 4.5 Hrs. Clinical) *15 wks

This course is designed for those students exiting at the first year (1st level). The course is a clinical practicum aimed at helping the student to synthesize freshman academic year theory and clinical nursing practice. Issues pertaining to the role of the LPN in the work setting are particularly emphasized. The offering of this course is contingent upon sufficient registrations. *Prerequisites: NUR 112; NUR 121; ENG 101, 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. *Prerequisite: 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.*

Course Descriptions

LPN advanced placement students must complete NUR 116; Co-requisites: 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; *Co-requisites:* COM 100, Humanities Elective, General Education Elective.

Occupational Health and Safety (OHS)

OHS 100 Introduction to Occupational Health & Safety

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. *Note: This course is designed for non OHS majors and not applicable to either the Certificate or the Associate Degree in Occupational Health and Safety.*

OHS 102 Occupational Health and Safety

1 Credit (1 Lecture 0 Lab 0 Shop)
1 Hr/Wk (1 Hr. 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. *Note: This course is not applicable to either the Certificate or the Associate Degree in Occupational Health and Safety.*

OHS 115 Basic Principles of Construction Safety and Health

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course will introduce the student to principles of safety and health in the construction industry. The course will include identification of safety and health hazards, risk reduction measures, personal protection and safety attitudes and training. Standards under the Occupational Safety and Health Administration will be the basis of the course.

OHS 185 Fire Prevention and Suppression

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course, one of five in the Associate in Loss Control Management (ALCM) sequence focuses on fire prevention and suppression techniques. In-house fire brigades will be discussed. Training and readiness activities will also be covered.

OHS 216 Worksite Evaluation

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course covers methods of inspecting and evaluating health and safety hazards at a worksite including analysis of specific job assignments. It also introduces the student to accident investigation techniques. The course will include hands-on worksite evaluation. *Prerequisites:* OHS 101 and 106, or Faculty approval.

OHS 221 Emergency Planning and Response

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course will introduce the student to planning and response considerations for common workplace emergencies including fire, hazardous materials incidents, and causes for evacuation.

OHS 250 Safety and Health Program Management

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is designed to introduce the student to approaches which can be used to develop, implement, evaluate and manage a health and

safety program for a workplace. The course will stress team building and ownership as critical elements of a successful workplace health and safety program. A sample safety and health program will be drafted by each student. *Prerequisites:* OHS 216 and ENG 101 or Faculty approval.

OHS 260 Ergonomics

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course will deal with the issue that is most often associated with the lower back and upper body injuries that account for a large part of the lost-time work-related injuries in Maine. Ergonomics is the study of the relationship between the human body and the work that it does. *Prerequisites:* OHS 101 and MAT 050, or Faculty approval.

OHS 265 Introduction to Industrial Hygiene (Lecture)

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

OHS 266 Introduction to Industrial Hygiene (Laboratory)

1 Credit (0 Lecture 1 Lab 0 Shop)
2 Hrs/Wk (2 Hrs. Lab) *15 wks

These courses (to be taken concurrently) are designed to build upon the Basic Principles of Occupational Health presented in OHS 101 by giving the student the techniques for anticipating, evaluating, and abating the effects of workplace health hazards. *Prerequisites:* OHS 101, MAT 122, CHY 101 and 102

OHS 293 Construction Safety and Health Management

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

This course is designed to provide the student with the education and skills to develop, implement, and manage a comprehensive health and safety program in the construction industry. The student will understand the roles and responsibilities of a "competent person" prescribed by the Occupational Safety and Health Administration (OSHA). This course will use the models developed by OSHA for construction.

Course Descriptions

Automotive Technology Parts and Service Management (PSM)

PSM 100 Parts and 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. *Prerequisite: Automotive Core Requirement.*

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: Automotive Core Requirement.*

PSM 205 Parts and 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. *Prerequisite: PSM 100 Parts and Service Management I.*

Philosophy (PHI)

PHI 101 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: ENG 101.*

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: Successful Completion of ENG 101 (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: Successful Completion of ENG 101 (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. *Co-requisite: PHY 122 Lab; Prerequisite: MAT 105 or MAT 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. *Co-requisite: PHY 121.*

PHY 130 Physics for Communication Technology

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

Basics of Classical Mechanics are investigated; including forces, the laws of motion, work and energy, vibrations and waves and sound. Also included will be Heat and Thermal expansion, Electricity and Magnetism, and Light and Optics. This course will also include laboratories associated with the lecture topics as listed below. *Prerequisites are MAT 130 and MAT 230 or Faculty approval.*

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 Co-requisites: MAT 132 and PHY 143 (lab).*

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 (theory). *Co-requisite: 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; *Co-requisite:* PHY 222 Lab.

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. *Co-requisite:* 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. *Prerequisites:* PHY 142, 143 with a grade of C or better.

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 (theory). *Co-requisite:* PHY 242

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, 122 or PHY 142, 143 with a grade of C or better.

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, intergovernmental 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 struc-

ture 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 201 Maine State Government

3 Credits (3 Lecture 0 Lab 0 Shop)
3 Hrs/Wk (3 Hrs. Lecture) *15 wks

An overview of the governing process in Maine and how citizens participate in their government. The local and state processes will be discussed in this course.

POS 205 Introduction to Comparative Politics

3 Credits

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

Course Descriptions

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.

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 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 Introduction to HUS 112, PSY 101, with a grade of C or better or permission of the instructor.*

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, intergroup 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 vocation/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 psychological will be addressed. Students will examine and analyze philosophical, historical, legislative and organizational structures; vocational rehabilitation and related

Course Descriptions

programs; referral and service delivery systems; the vocational rehabilitation process; administration of rehabilitation programs and professional and ethical issues. *Prerequisites: Introduction to Psychology and Introduction to Community Mental Health 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 or permission of the instructor.*

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. *Prerequisite: Completion of HUS 112 with a grade of C or better or permission of the instructor.*

PSY 243 Physics II Lab

1 Credit (0 Lecture 1 lab)
2 hrs/wk (2 Hrs. lab) *15 wks

The fundamentals of physics are investigated using laboratory experiments. These experiments may involve properties of materials in solid, fluid, and gaseous states, experiments on how objects are affected by heat and temperature changes, and the basic concepts of electricity and magnetism. *Co-requisite: Physics II (Phy-242) or approval of the MAT/SCI Faculty.*

PSY 296 Special Topics in Psychology

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 psychology. These topics will analyze various individual and social patterns in contemporary psychology. 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: 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.

Radiologic Technology (RAT)

RAT 199 Radiologic Technology

45 Credits Prior Learning

This catalog listing reflects CMCC's recognition of appropriate, significant and successful prior learning achieved at the Joint Review Committee approved School of Radiologic Technology at the Central Maine Medical Center, Lewiston, Maine.

Real Estate (REE)

REE 101 Introduction to Real Estate

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 Hrs. Lecture) *15 wks

This course provides the student with sufficient competency in Real Estate to sit for the Maine Real Estate Commission Sales Agent Exam. Students who successfully complete this course can apply for the exam. Topics will 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 around the world or a source of peace? Where are the similarities? Can religions even exist in our hectic 21st Century world? Can science and religion coexist? Does God even exist? Comparative religions will look for answers by examining the major religious traditions of the world. From the West – Christianity, Judaism, Islam. From the East – Hinduism, Buddhism, Taoism. In addition, we'll explore some of the lesser known beliefs such as Native American beliefs, Paganism,

Wicca, Scientology, and others. We'll be following a text, but the course will also include several primary sources and religious documents for a more comprehensive understanding. *Prerequisite: ENG 101 with grade of C or higher.*

Science (SCI)

SCI 151 Hydraulics and Pneumatics (Lec.)

2 Credits (2 Lecture 0 Lab 0 Shop)
2 Hrs/Wk (2 Hrs. Lecture) *15 wks

SCI 152 Hydraulics and Pneumatics (lab)

4 Hrs/Wk (4 Hrs. Lab)

This course will cover the fundamentals of hydraulic and pneumatics including energy, force, power, and pressure. Applications will employ flow principles, Pascal's Law, and Bernoulli's Principle. Laboratory exercises will be in support of the lecture. *Prerequisite: MAT 122 or Faculty approval.*

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 216 Changing Nature of Work (TTV)

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 of discussion include communication, structure and function of organizations and teams within, leadership and problem solving, employer and employee relations, labor management relations, the changing nature of work in a modern society, maintaining physical and mental health in the workplace, and application of umbrella competencies. Class discussions and projects will focus on the application of the concepts and principles related to these topics.

Course Descriptions

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 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 the 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. Additionally, 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; gender 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 commu-

nity 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 Spanish 101. Emphasis on development of listening comprehension, speaking, reading and writing skills. *Prerequisite: Spanish 101 or 2 years of high school Spanish.*

Course Descriptions

Telecommunications Technology (TET)

TET 201 Telecommunications I

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; *co-requisite:* ELT 145.

Telecommunications Technology - Verizon (TTV)

TTV 114 Electrical Circuits

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

In this course students learn to analyze DC and AC passive circuits using Ohm's Law, Kirchhoff's Laws, Thevenin's and Norton's Theorem, and Superposition. RC and RL circuits are analyzed for impedance and resonance. Transformers are used in step-up and step-down configurations. Troubleshooting and analysis by computer simulation using MultiSim is stressed throughout. *Prerequisites:* BCA 120, MAT 130.

TTV 143 Electronics I

4 Credits (4 Lecture 0 Lab 0 Shop) 4 Hrs/Wk (4 Hrs. Lecture) *15 wks

In this course students are trained in the characteristics of diodes, transformers, and rectifier circuits including filtering. Amplifiers using BJTs and FETs are analyzed with respect to Amplification, dB, and input and output impedance. Power amps are introduced with emphasis on the complementary-symmetry class B circuit. The frequency response of passive networks and amplifiers is measured. Operational amplifiers are introduced to build inverting, non-inverting, and specialty amplifiers. Troubleshooting and analysis by computer simulation using MultiSim is stressed throughout. *Prerequisite:* TTV 114.

TTV 151 Digital I

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

This course will prepare students to understand, test, troubleshoot, and repair digital electronics circuits as well as work in an engineering environment in a technical capacity. Abstract topics such as systems and codes, logic, functions, and Boolean algebra will serve as a basis for working with applications involving digital integrated circuits. Digital integrated circuits covered will include logic gates; adders and other arithmetic circuits; flip-flops; shift registers; serial/parallel converters; counters; comparators; encoders and decoders; and analog to digital and digital to analog conversion. Students will use equipment such as digital multimeters, oscilloscopes, signal generators and power supplies. Computer simulation using Electronics Workbench will also be used to enhance understanding. *Prerequisites:* TTV 240, MAT 230, PHY 130.

TTV 160 Digital Systems for Telecommunications I

4 Credits (3 Lecture 1 Lab 0 Shop)

5 Hrs/Wk (3 Hrs. Lecture 2 Hrs. Lab) *15 wks

This course presents topics in hardware and systems as used in the telecommunications industry. Electrical and digital circuits are explored. Binary numbers systems are discussed as applied to telecommunications equipment. Students will explore hardware to the modular level. Students will demonstrate and simulate digital circuits. *Prerequisites:* BCA 120, MAT 130.

TTV 161 Digital System for Telecommunications II

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

In this course students will be working with hardware and software installation with an introduction of the personal computer fundamentals. Students will connect a personal computer to a network, and install and setup a printer. The course will cover managing and supporting Windows. Configure user related issues and customization. Learning how to maintain a computer and troubleshooting fundamentals. Students will connect a personal computer to a network, and install and setup a printer. An optional topic would cover Home Technology Integration including surveillance and home automation. The course is composed of lecture and in-class demonstration. *Prerequisite:* TTV 160

TTV 162 Electrical Circuits

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

In this course students learn to analyze DC and AC passive circuits using Ohm's Law, Kirchhoff's laws, Superposition. RC and RL circuits are analyzed for impedance and phase angles; Troubleshooting, analysis by computer simulation using simulation software, and telecommunication applications are stressed throughout. *Prerequisites:* BCA 120, MAT 230.

TTV 240 Electronics II

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

Students practice the analysis and application of advanced electronic circuits. Topics include operational amplifiers, frequency response of active filters, oscillators and high frequency amplifiers, phase locked loops, amplitude modulation, frequency modulation, pulse modulation, theoretical and hands-on troubleshooting of test circuits, and analysis by computer simulation. *Prerequisite:* TTV 143.

TTV 254 Digital Logic II

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

This course is designed to train students in the organization, architecture and hardware aspects of digital computer systems. Topics include an introduction to microprocessors, types and characteristics of different chips, microprocessor architecture, introduction to assembly language programming, PC system organization, motherboards, bus structures, memory, I/O interface devices, disk drives, video displays, and printers. Serial and parallel buses are discussed. Applications include the interfacing of peripherals, data communications between computers, and a team project. *Prerequisite:* TTV 151.

TTV 260 Introduction to Electronics

4 Credits (4 Lecture 0 Lab 0 Shop)

4 Hrs/Wk (4 Hrs. Lecture) *15 wks

In this course students are taught the characteristics of amplifiers using opamps with respect to amplification, dB, frequency response, and input and output impedance. Opamp applications such as inverting and non-inverting amps, summing amps, averaging amps, and comparators are introduced with emphasis on the uses of these devices in the telecom industry. Electro-optical devices, such as LEDs, laser diodes, and photodiodes, are studied including uses in the telecom industry. Diodes and

Course Descriptions

transistors are conceptually introduced. Transformers are introduced in connection with power supplies. Diodes are applied as switches in linear and switching power supplies. The frequency response of passive networks and amplifiers is measured. Cutoff frequencies, rolloff, bandwidth, and magnitude and phase are discussed and visualized via Bode plots. Troubleshooting and analysis by computer simulation software is stressed throughout. *Prerequisites: PHY 130, TTV 162.*

TTV 261 Telecommunications I

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 Hrs. Lecture) *15 wks

An introduction to the techniques, principles, and terminology of voice telecommunications will be presented. Public and private telecommunication networks will be examined. Telecommunication equipment, switching and transmission technology will be demonstrated. The frequency spectrum, modulation schemes and multiplexing techniques will be explored. Lectures, interactive learning and demonstrations will be employed. Laboratory exercises will be required. *Prerequisite: TTV 162.*

TTV 262 Electronic Communication

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 Hrs. Lecture) *15 wks

Students practice the analysis and application of advanced electronic circuits as applied to the telecommunications industry. Topics include frequency response of active filters, oscillators; amplitude modulation, frequency modulation, phase locked loops; pulse modulation concepts; and introduction to television; theoretical and hands-on troubleshooting of test circuits, and analysis by computer simulation. *Prerequisite: TTV 260.*

TTV 263 Telecommunications II

4 Credits (4 Lecture 0 Lab 0 Shop)
4 Hrs/Wk (4 Hrs. Lecture) *15 wks

This course is designed to train students in the organization, architecture, setup, maintenance, hardware and software aspects of local area networks. Topics include: introduction to networks; types and characteristics of different network architectures and network topologies; intra and inter-network devices; network operating systems; peer-to-peer and client/server environments; LAN setup and maintenance, network printing; internal web server. A hands-on approach will be taken, with team projects throughout. *Prerequisite: TTV 261.*

TTV 264 Telecommunications III

4 Credits (3 Lecture 1 Lab 0 Shop)
5 Hrs/Wk (3 Hrs. Lecture 2 Hrs Lab) *15 wks

This course is designed to train students in the organization, architecture, set up, hardware and software aspects of interconnecting local area networks (LANs) and wide area networks (WANs). Topics include: introduction to intra and inter-network devices; network operating systems; client/server environments; LAN/WAN setups, network printing; internal web server. A hands-on approach will be taken, with team projects throughout. *Prerequisite: TTV 263*

TTV 265 Telecommunications IV

4 Credits (3 Lecture 1 Lab 0 Shop)
5 Hrs/Wk (3 Hrs. Lecture 2 Hrs Lab) *15 wks

A survey of current and emerging technologies in Telecommunications will be presented. Lectures, interactive learning, demonstrations, and site visits will be employed. *Prerequisite: TTV 264.*

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 playwriting. 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.

Trade and Technical Occupations (TTO)

TTO 199 Apprenticeship (Prior Learning)

Variable credit (maximum 24)

This catalog listing reflects Central Maine Community College's recognition of appropriate apprenticeship experience and its credit relationship to degree requirements. Credit awards vary and are considered for posting, at the discretion of the College only after successful completion of the apprenticeship. Documentation of an apprenticeship and its completion are required prior to consideration of credit award. All apprenticeship must be authorized by the Maine Department of Labor, Bureau of Employment Services, Maine State Training and Apprenticeship Council.

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. *Successful completion of ENG 101 is recommended.*

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