A MESSAGE FROM THE PRESIDENT ON BEHALF OF THE COLLEGE COMMUNITY

Eastern Maine Community College is a place where we help transform people's lives. It is a place where adult students are receiving training that they need for promotions in their current jobs or retraining for new careers. It also is a great place for recent high school graduates to begin their college degree earning their associates degree and then going on to graduate from private and public universities in Maine and other universities across the United States.

Our mission is to provide the highest quality technical, career and liberal arts education and to serve as a key community and economic development resource for the entire EMCC service area. We pride ourselves on our academic programs and the learning that takes place both inside and outside the classroom. The information contained in this catalog offers you complete information about college programs, services, policies and procedures to help you plan and fulfill your college dreams.

Welcome to EMCC; a Great College and a Smart Choice!

Lawrence M. Barrett, Ed. D, President

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Reserve Clause

Eastern Maine Community College reserves the right to change any provisions, regulations, policies, procedures, costs, or requirements set forth herein and the right to withdraw or amend any services as may be required or desirable by circumstances.

NOTICE OF NONDISCRIMINATION

Eastern 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: Affirmative Action Officer, Maine Hall, Room 134B, 354 Hogan Road, Bangor, Maine 04401, telephone number 974-4633, voice/TDD 974-4658, fax number 974-4888, e-mail jboyd@emcc.edu, internet http://www.emcc.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/TTD 207-624-6064, fax 207-624-6063, internet http://www.state.me.us/mhrc/index.html: 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.

COPIES OF CATALOG

The College Catalog is published annually and is available on the College website (http://www.emcc.edu). Electronic copies are available on request.

To request an electronic copy, please e-mail Academic Affairs at catalog@emcc.edu.

GENERAL INFORMATION

ACADEMIC PROGRAMS

	Associate in Arts Degree	Associate in Applied Science Degree	Associate in Science Degree	One-Year Certificate	Certificate (Takes more than one year to complete)
Automotive Technology		●		●	
Building Construction		●	●	●	
Business Management		●		●	
Civil Engineering Technology			●		
Computer Aided Drafting & Design			●	●	
Computer Repair Technology				●	
Computer Systems Technology		●			
Culinary Arts		●		●	
Diesel, Truck & Heavy Equipment		●		●	
Digital Graphic Design		●		●	
Early Childhood Education		●			●
Education		●			
Electrical & Automation Technology		●			
Electricians Technology					●
Emergency Medical Services		●			●
Fine Woodworking and Cabinet Making		●			
Fire Science		●			●
General Technology		●			
Health Care Secretary				●	
Hospitality & Tourism Management		●			
Liberal Studies	●				
Medical Assistant		●			
Medical Office Technology		●			
Medical Radiography			●		
Medical Transcription		●			
Nursing			●		
Refrigeration, Air Conditioning & Heating		●		●	
Restaurant & Foods Service Management		●			
Surgical Technology		●			
Trade & Technical Occupations		●			
Welding		●			●

Correspondence

Inquiries should be directed to appropriate officers of the College.

Eastern Maine Community College
354 Hogan Road
Bangor, ME 04401

Telephone: 1-207-974-4600
In Maine: 1-800-286-9357
www.emcc.edu

At Eastern Maine Community College, e-mail addresses are configured as follows:

Employee'sFirstInitialEmployee'sLastName@emcc.edu
Example: Elizabeth Russell, Director of Admissions = erussell@emcc.edu

Academic Affairs .....Pamela Proulx-Curry, Academic Dean
- Automotive .....Richard Thomas, Chair
- Building Construction .....Les Stackpole, Chair
- Business Management ..... Keith Moon, Chair
- Civil Engineering Technology .....Les Stackpole, Chair
- Computer Aided Drafting & Design .....Mark Nisbett, Chair
- Computer Systems Technology .....Paul Mayer, Chair
- Culinary Arts .....Jay Demers Chair
- Diesel, Truck & Heavy Equipment..... Gene Fadrigon, Chair
- Digital Graphic Design .....Mark Nisbett, Chair
- Early Childhood Education/Education ..... Connie Ronco, Chair
- Electrical and Automation Technology ..... Rick Reardon, Chair
- Electricians Technology..... Rick Reardon, Chair
- Emergency Medical Services .....Dan Batsie, Chair
- English .....Carol Lewandowski, Chair
- Fine Arts/Languages.....John Ianelli, Chair
- Fine Woodworking & Cabinet Making……..Les Stackpole, Chair
- Fire Science ..... Christopher Easton, Chair
- General Technology .....Erin Vinson, Program Coordinator
- Hospitality & Tourism Management ……Mark Janicki, Chair
- Liberal Studies .....Pamela Proulx-Curry, Chair
- Math/Science .....Jeffrey Melmed, Chair
- Medical Assistant..... Sally Hall, Chair
- Medical Radiography .....Heather Merrill, Chair
- Medical Transcription.....Keith Moon, Chair
- Medical Office Technology .....Keith Moon, Chair
- Nursing ..... Sarina Roche, Chair
- Refrigeration, Air Conditioning and Heating……..
  Richard Gomm & Charles Veilleux, Co-Chairs
- Restaurant Management……Jay Demers, Chair
- Social Sciences ..... Ed Raymaker, Chair

Surgical Technology ..... Sarina Roche, Chair
Welding.....Chris Maseychik, Chair
Adjunct Faculty……..... Academic Affairs Office
Admissions.....Elizabeth Russell, Director of Admissions
Rita Broad, Associate Director of Admissions
Stacy Green, Associate Director of Admissions
Affirmative Action ..... Jody Boyd, Human Resources Director
Corporate and Professional Service……Dean, Corporate and Professional Services
College Store.....Maureen Mitchell, Manager
Counseling Services ...Salena King, Student Support Services Counselor
Disability Services ..... Elizabeth Worden, Coordinator
Facilities Management .....Dan Belyea, Director
Financial Aid.....Candace Ward, Director
General Administrative Matters.....Lawrence Barrett, President
Health and Safety.....Ruth Doherty, Director
Health Services .....Nancy Burns, Administrative Secretary
Immunizations .....Nancy Burns, Administrative Secretary
Institutional Research and Student Data .....Dan Crocker, Dean
Library Services..... Janet Blood, Associate Dean
Non-Credit Courses……...Dean, Corporate and Professional Services
Off-Campus Services
East Millinocket Center……...Debora Rountree, Associate Academic Dean
One Industrial Drive
East Millinocket, ME 04430
(207) 746-5741 ● 1-800-498-8200 (in Maine)
Hancock County Higher Education Center.....Bonnie Sparks, Director
Mill Mall, 248 State Street, Suite 1
Ellsworth, ME 04605
(207) 667-3897
Penquis Higher Education Center ..... Jody Boyd, Acting Director
50 Mayo Street
Dover-Foxcroft, ME 04426
(207) 564-2942 ● 1-800-590-2942 (in Maine)
Residential Life..... Alissa Downing, Director
Room Reservations and Rental .....Dan Belyea, Director
Student Billing .....Karen Shorette, Manager of Financial Services
Student Insurance Services .....Nancy Burns, Administrative Secretary
Student Registration.....Dan Crocker, Dean
Transcripts.....Dan Crocker, Dean
Veteran Affairs..... Candace Ward, Associate Dean

About Eastern Maine Community College

HISTORY

Eastern Maine Community College, formerly Eastern Maine Technical College (EMTC) and Eastern Maine Vocational Technical Institute (EMVTI), was established in 1966 by the Maine State Legislature, under the authority of the State Board of Education. In 1968 the college moved from temporary quarters in downtown Bangor to open farmland on Hogan Road, which is now adjacent to the ever-growing Bangor Mall district, which includes a multi-cinema complex, shopping opportunities, and many established eateries.

In 1986 the 112th Legislature created a board of trustees to govern all campuses of the System. The name of the College changed from "Technical" to "Community" on July 1, 2003 to more accurately reflect its purpose. The College prepares students for various pathways, including starting their career, furthering their education, or updating their skills.

Today, Eastern Maine Community College offers certificates, diplomas, associate in applied science degrees, associate in science degrees, associate in arts degrees, and advanced certificates in 32 technologies, liberal studies, and other areas of study. Eastern Maine Community College prepares technicians and skilled workers for careers in mechanical, engineering and construction industries, allied health professions, business occupations, and education. Programs of study are developed in cooperation with experts currently working in representative areas of technology. Short-term and specialized training and re-training courses are also available to business, industry, and the community. Approximate enrollment is 1,377 full-time and 1095 part-time students, with 55 full-time and approximately 150 adjunct faculty.

MORE ABOUT THE EASTERN MAINE COMMUNITY COLLEGE EXPERIENCE

Sports, musical events, theaters, shopping and outdoor recreational activities fill and surround Bangor, home of Eastern Maine Community College. With a population under 35,000, Bangor offers all of the amenities of a larger city yet provides the safe, peaceful charm of a smaller Maine town.

Within one hour's drive of the spacious Bangor campus, you'll find Acadia National Park, the only national park in the northeastern United

States; Mt. Katahdin--known for its challenging hiking trails; and nearby access to the world through Bangor International Airport. Maine's scenic rivers and lakes provide abundant opportunities for white water rafting, kayaking, fishing, and canoeing. You can experience the thrill of big mountain skiing by traveling two hours to Sugarloaf/USA, or you can spend a relaxing day snowboarding at Hermon Mountain--just 15 minutes away.

The City of Bangor boasts one of the State's largest shopping malls, the nation's oldest community orchestra, a children's museum, professional theatre company, and several specialty shops and fine eateries. In recent years, Bangor was the host of the National Folk Festival. Following the success of this festival, the city continues to host a yearly American Folk Festival in August. The Bangor State Fair and the downtown Art Show are annual events that can't be missed.

One of six universities and colleges located in or near Bangor, Eastern Maine Community College has developed partnerships with several of these institutions. At the University of Maine in Orono, Eastern Maine Community College students can enjoy world-class performances at the Collins Center for the Arts, attend Division I athletic events, or utilize the Fogler Library—the largest research library in the State of Maine.

The main campus of Eastern Maine Community College is located on a 72-acre parcel of land on the Hogan Road in Bangor. Off-Campus Centers located in Dover-Foxcroft, East Millinocket, and Ellsworth, are located at the heart of the communities they serve. Our small size and small classes contribute to an atmosphere in which faculty and students develop friendships and professional alliances that mutually enrich their lives for years to come.

OFF-CAMPUS CENTERS

Eastern Maine Community College has Off-Campus Centers located in Dover-Foxcroft, East Millinocket and Ellsworth. At these centers, individuals can enroll in credit courses and, in some cases, complete most coursework toward an associate degree, diploma or certificate. Professional staff is available to assist with academic advising, financial aid, career counseling, placement testing, and course registration. Non-credit courses are also offered at the Centers.

PHILOSOPHY

Eastern Maine Community College awards associate in applied science, associate in science and associate in arts degrees; advanced certificates; diplomas; certificates; and documents of completion for customized short-term programs and courses.

Eastern Maine Community College is dedicated to providing all students with a well-balanced education focused on problem solving, decision-making, communications, social understanding, computer applications, mathematics, and science. Liberal arts courses are required of all programs to form the foundation for lifelong learning. Technology programs include concentrated studies in both technical theory and application in the area of specialization. Programs and student support services are designed to develop leadership skills, personal responsibility, teamwork, and appreciation of the complex problems faced by a changing society.

MISSION OF THE MAINE COMMUNITY COLLEGE SYSTEM

The basic mission of the Maine Community College System is to provide associate degree, diploma, advanced certificate, and certificate programs directed at the educational, occupational, technical, and transfer needs of the State's citizens and the workforce needs of the State's employers.

The primary goals of post-secondary technical education and the Maine Community College System are to create an educated, skilled and adaptable labor force which is responsive to the changing needs of the economy of the State and to promote local, regional and statewide economic development.

ACCREDITATION

Eastern Maine Community College is a publicly supported post-secondary institution, fully accredited by the New England Association of Schools and Colleges, Inc., which is the primary accrediting agency for schools and colleges in the New England states.

In addition, the Nursing program is accredited by the National League for Nursing Accrediting Commission (NLNAC) 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326; 1-404-975-5000; fax 1-404-975-5020; the Medical Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182; 1-312-704-5300; the Surgical Technology program is accredited by the Commission on

Accreditation of Allied Health Education Programs (CAAHEP), 35 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208; 1-312-553-9355, and the Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, FL 33756; 727-210-2350; www.caahep.org.

CIVILITY STATEMENT

The dictionary describes civility as follows:

- A politeness
- A courtesy
- A polite act or expression
- Not deficient in common sense
- Adhering to the norms of polite social exchange

There will be times that each student, administrator, faculty member or staff personnel will experience frustration to a high degree. When this occurs, and it will, we encourage each person experiencing this high level of frustration to step back, walk away, and return later to discuss the situation. Seek out someone to act as a third party with respect to conflict resolution.

We encourage all individuals who are in any way part of the college community to think ***CIVILITY*** on a daily basis. We want to be:

- A college where respect is expected.
- A college where respect is obvious.
- A college where we all treat each other as we would wish to be treated.
- A college where conflict resolution is the rule of thumb.
- A college where we all feel that someone is available to assist when needed.
- A college where all community members have the same goal—a peaceful and tranquil campus to pursue an education.

CANCELLATION OF COLLEGE ACTIVITES AND EMERGENCIES

The College will be open unless conditions on campus present an unsafe or adverse environment for students and employees. This applies to all College Centers.

Cancellations: Decisions to close the College and/or College Centers for the day will be made prior to 5:30 a.m. Cancellations after classes have started will be as follows: afternoon class cancellation prior to 10:00 a.m. and evening by 3:00 p.m. If classes are cancelled for the

day, they will also be cancelled for the evening. Some emergencies are not predictable and each will be handled on a case-by-case basis.

Delayed Opening: Depending on conditions, the College may choose to delay the beginning of classes. Delayed openings will be consistently applied and include the following times: 10 a.m.; 12 noon; 2 p.m.; 4 p.m.; and 6 p.m. Delayed openings will be handled as if the College is in full operation for the entire day. For example, if a delayed opening is at 10:00 a.m., students and employees are to report to the activity normally scheduled at 10:00 a.m. Regardless of the beginning or end time of the class, if it is normally in session at 10:00 a.m., students and faculty will report to that class.

See Student Handbook for more information. The Student Handbook can be found on the College's website or in the Library.

NOTICE TO STUDENTS WITH DISABILITIES

Eastern Maine Community College does not discriminate on the basis of disability in the admissions to, access to, or operations of its programs, services or activities. Eastern Maine Community College does not discriminate on the basis of disability in its hiring or employment practices.

In accordance with Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990, the College is committed to helping qualified students with disabilities achieve their individual educational goals. Upon request and documentation, the College provides to qualified students reasonable accommodations to remediate the competitive disadvantage that a disability can create in our collegiate setting. Students with disabilities who are entitled to and are requesting reasonable accommodations must contact Elizabeth Worden, the Assistant Academic Dean for Academic Support, in 105 Maine Hall, at phone: 207-974-4658 or e-mail: eworden@emcc.edu in accordance with College Policy and Procedure. Elizabeth Worden also serves as the College's ADA Compliance Officer.

HARASSMENT/SEXUAL HARASSMENT/ NONDISCRIMINATION POLICY

Eastern Maine Community College has a zero tolerance for any forms of harassment or discrimination of our students, employees or visitors. The College recognizes the dignity and the right of individuals to work, learn, play and live in an environment free of harassment and discrimination. If you feel you have been or are being harassed, contact Jody Boyd, Affirmative Action Officer, 974-4633, e-mail jboyd@emcc.edu. The

Affirmative Action Officer is located in Room 134B, Maine Hall. She will listen to your concerns, explain your rights, and assist you through the grievance process. To the extent possible, the confidentiality of complaints will be protected. College policy prohibits retaliation or retribution against someone reporting harassment, sexual harassment, or discrimination. Additionally, you may file complaints with the Maine Human Rights Commission or the United States Department of Education, Office of Civil Rights.

See Student Handbook for more information. The Student Handbook can be found on the College's website or in the Library.

Admissions Information

ADMISSION POLICY

Eastern Maine Community College requires applicants to have earned a high school diploma or state high school equivalency certificate (GED). Algebra I is required for admission into all programs. In addition, applicants must meet all other program-specific requirements. The College maintains a "rolling admissions" policy for most programs, allowing candidates to apply and be considered for acceptance until the programs are filled with qualified students. However, applicants are advised to apply early because of competition for programs and limited enrollment capacities.

Due to the competitive nature of the Medical Assistant Technology, Medical Radiography, Nursing, and Surgical Technology programs, a "selective admissions" policy is followed. Applicants to these programs are strongly encouraged to apply early as the selection process begins in October and the deadline is February 1 each year.

Because the start dates of the EMS-Intermediate and EMS-Paramedic classes do not follow the traditional academic calendar established by Eastern Maine Community College, the admission timeline and application deadlines differ from those established for other programs offered by EMCC. Applications for the EMS program will be accepted as follows:

- EMS-Intermediate Pathway: Applications open **September 1** and close **November 30**. All application documentation must be submitted to the Admissions Office by November 30.
- EMS-Paramedic Pathway: Applications open **February 1** and close **May 31**. All application documentation must be submitted to the Admissions Office by May 31.

APPLICATION PROCEDURES

Timeline: Although applications for admission may be submitted no earlier than one year prior to the starting date of the program, applicants are advised to apply early because of strict enrollment capacities and competition for programs.

Applications received within seven (7) calendar days of the official start of each semester may be reviewed for the next available semester. Limited exceptions may be made for certain programs at the discretion of the College.

Requirements: Applications will be evaluated after the Admissions Office has received the following information:

1. Completed "Application for Admission" with essay and a non-refundable $20 application fee.
2. Official high school and/or adult education transcript(s) for all years attended sent directly from the high school/adult education provider.
3. GED test results (if applicable) sent directly from the Department of Education in the state issuing the GED.
4. Transcript(s) of all previous college work sent directly from each institution attended.
5. Scholastic Aptitude Test (SAT) scores sent directly from the College Board or the high school for applicants who will graduate or have graduated from high school within the previous three years.
6. Two letters of recommendation sent directly from the evaluator for applicants to the Medical Assistant Technology, Medical Radiography, Nursing, and Surgical Technology programs.
7. Completed "Student Disclosure of Criminal Convictions, Pending Criminal Charges and Certain Disqualifications Form" for applicants to the Early Childhood Education, Education, Emergency Medical Services, Medical Assistant Technology, Medical Radiography, Nursing, and Surgical Technology programs. (See additional information below.)
8. Preadmission test results for applicants to the Medical Radiography and Nursing programs. Students seeking admission to the Medical Radiography program are required to take the Health Occupations Aptitude Exam at a cost of $25. Students seeking admission to the Nursing program are required to take the Elsevier HESI A^2 pre-entrance exam at a cost of $35. Pre-admission testing may also be required for other programs at the discretion of the Admissions Committee.

*Emergency Medical Services applicants should request an EMS application packet from the Admissions Office. Application requirements include all of the above-mentioned materials plus an EMS Evaluation Packet.

Criminal Background Check: Eastern Maine Community College is committed to ensuring that students have the ability to benefit from the education received at the College. Certain affiliates associated with EMCC require that students placed in their facility for clinical/internship/field placement experiences clear a criminal background check prior to placement. Students whose background check reveals criminal history may be prevented access to the clinical site, and as a result, the student will not have sufficient clinical experience to successfully complete the program. Additionally, licensing boards for certain professions including the health care occupations may deny the individual the opportunity to sit for an examination if an applicant has a criminal history.

Fully qualified applicants for the Early Childhood Education, Education, Emergency Medical Services, Medical Assistant Technology, Medical Radiography, Nursing, Surgical Technology, and some other programs are required to complete a **"Student Disclosure of Criminal Convictions, Pending Criminal Charges and Certain Disqualifications Form"** prior to admission and may be subject to a criminal background check once all admissions requirements have been met.

Applicants who have engaged in any activity or behavior which may be considered abuse, neglect or exploitation of a minor or of an incapacitated or dependent adult, or who has been convicted of any crime involving fraud or dishonesty, or drugs, or for which imprisonment of one year or more has been imposed are urged to seek clarification regarding program completion requirements from the Director of Admissions prior to application submission.

Interviews: A personal interview is required for selected Medical Radiography; Refrigeration, Air Conditioning and Heating; and Surgical Technology applicants, or for other programs at the discretion of the Admissions Committee.

Advanced Standing Nursing Applicants: Practical Nurses applying to the second level must a) complete the admission requirements outlined in this catalog, b) provide documentation of successful completion of a State Board approved practical nursing program, and c) submit transcripts of practical nursing education and any college level courses.

International Applicants: Eastern Maine Community College is authorized under federal law to enroll non-immigrant students. Applicants who are citizens of countries other than the United States are expected to submit the same credentials as other applicants, including transcripts of courses taken and examination results. If the documents are not in English, they must be accompanied by an English translation certified by a recognized agency that specializes in evaluation of foreign educational documents. EMCC recommends World Educational Services to obtain an international educational credential evaluation. E-mail: info@wes.org Bowling Green Station, PO Box 5087, New York, NY 10274-5087. If English is not the applicant's native language, EMCC requires a Test of English as a Foreign Language (TOEFL) score of 530 paper/197 computer based/71 Internet based (iBT). Applicants who have completed EMCC's Integrative English Training Program with 15 credit hours of coursework with a 3.0 GPA or higher are exempt from providing TOEFL results. Once accepted into a program of study, a 120 document will be prepared for the international student. This document will allow an international student to interview for their student visa. International students attending Eastern Maine Community College may arrive in the United States up to thirty days prior to the start of semester classes.

General Technology Applicants: Prior to completing an application, persons interested in the General Technology program should meet with the General Technology Department Chairperson to determine the specific individual requirements of this degree.

Homeschooled Applicants: Homeschoolers are required to submit an official school transcript or an annual assessment of courses completed and one of the following: SAT, ACT or GED results.

PROGRAM PREREQUISITES

AA-Associate in Arts AAS=Associate in Applied Science AS=Associate in Science AC=Advanced Certificate CRT=Certificate R=Required D=Desired*	Level	Algebra I	Algebra II	Geometry	Trigonometry	Lab Biology	Physics	Chemistry/Lab	Anatomy & Physiology/Lab
Automotive Technology	AAS	R	D	D			D	or D[1]	
Automotive Technology	CRT	R							
Building Construction	AS	R	R	R			R	or R[1]	
Building Construction	AAS	R	D	D			D	or D[1]	
Building Construction	CRT	R							
Business Management[2]	AAS	R							
Business Management[2] - Office Technology	CRT	R							
Civil Engineering Technology	AS	R	R	R	D		R		
Computer Aided Drafting & Design	AS	R	R	R					
Computer Aided Drafting & Design	CRT	R	D	D					
Computer Repair Technology	CRT	R	D						
Computer Systems Technology	AAS	R	R						
Culinary Arts	AAS	R	R			R or R	or R[1]		
Culinary Arts	CRT	R	D			D or D	or D[1]		
Diesel, Truck & Heavy Equipment	AAS	R	D	D			D	or D[1]	
Diesel, Truck & Heavy Equipment	CRT	R							
Digital Graphic Design	AAS	R	D	D					
Digital Graphic Design	CRT	R							
Early Childhood Education	AAS	R							
Early Childhood Education	CRT	R							
Education	AAS	R							
Electrical & Automation Techology[5]	AAS	R	R	R			R	or R[1]	
Electricians Technology	CRT	R							
Emergency Medical Services	AAS	R				R	or	R	
Emergency Medical Services	CRT	R				R	or	R	
Fine Woodworking & Cabinet Making	AAS	R	D	D		D	or	D[1]	
Fire Science Technology	AAS	R							
Fire Science Technology	CRT	D							
General Technology[3]	AAS	R							
Health Care Secretary[2]	CRT	R							
Hospitality & Tourism Management	AAS	R							
Liberal Studies	AA	R							
Medical Assistant	AAS	R				R			

Medical Office Technology	AAS	R				R			
Medical Radiography[4]	AS	R	R	R		R	R or R[1]		
Medical Transcription[2]	AAS	R				R			
Nursing[4]	AS	R				R		R	R
Refrigeration & Air Conditioning	AAS	R	D	D			D or D[1]		
Restaurant & Foods Service Mgmt.	AAS	R							
Surgical Technology	AAS	R				R	or	R	
Trade and Technical Occupations	AAS	R		D			D		
Welding	AAS	R	D	D			D or D[1]		
Welding	CRT	R		D					

*Desired: course is not necessary for admission but is of significant value in the intended program of study. All applicants are expected to have successfully completed at least one year of math and one year of science in high school. The chart is intended for use as a guideline for students when choosing an appropriate curriculum. The Director of Admissions urges interested applicants who do not meet these requirements to call and discuss alternatives.

1. It is strongly recommended that students take physics with lab as a prerequisite for admission in the mechanical, building, electrical, and Medical Radiography programs.
2. Four (4) years relevant work experience required.
3. Prerequisites outlined for program also apply to program upgrade.
4. Students must be familiar with Microsoft Office, e-mail, and the Internet.

For corporate-specific credential prerequisites, please refer to the Programs of Study section of this catalog.

SELECTION CRITERIA

Eastern Maine Community College determines the admissions status for applicants by considering the following criteria:

- high school transcript or General Equivalency Diploma (GED), including GED scores;
- academic performance in prerequisites for the program of study;
- class standing;
- cumulative grade point average;
- recommendations, when required or voluntarily submitted;
- interview, when required; and
- results of Scholastic Aptitude Test (SAT) of the College Board, when required;
- other pre-admission tests, if applicable.

ADMISSIONS CATEGORIES

The following categories are used during the admissions process.

Acceptance—The applicant has met the entrance requirements and has been approved for a program of study.

Conditional Acceptance—The applicant is admitted with conditions (developmental coursework, for example) which must be successfully completed within the prescribed timeframe.

Waiting List—1) The program applied for is filled, but the applicant may be accepted if an opening occurs; or 2) student qualifications for acceptance are not strong enough to be given first priority, but are sufficient to warrant periodic review. The College maintains a limited waiting list. Waiting list status does not guarantee acceptance for admission the following year; applicants must reapply for admission.

Non-acceptance—The applicant has not met the entrance requirements or has not met the standards established for a competitive program.

ACCEPTANCE PROCEDURES

1. Within 30 days of acceptance, students must pay a **tuition deposit of $75** to the Student Accounts Office. This deposit ensures a position in the program and is credited to the student's first semester bill.
2. Students wishing to live in a residence hall must submit a **room deposit of $100** with the **residence hall application** to the Student Accounts Office. This deposit is credited to the student's first semester residence hall bill.
3. Students must complete the Eastern Maine Community College Health History Form and provide proof of diphtheria-tetanus (administered within the last ten years) and two doses of the measles, mumps, and rubella vaccines (administered after student's first birthday) at least two weeks prior to the start of classes. Students admitted to one of the allied health programs are required to provide additional immunization materials as outlined in the acceptance packet.
4. Within 30 days of acceptance, students are required to take the **computerized placement test** (Accuplacer©) and to provide a brief writing sample so that the College may determine appropriate placement in math, writing, and reading. Based on the results of this assessment, students may be required to successfully complete math and English courses that are not part of the program curriculum. As a result, the length of time required to complete the program may be extended.

   Testing exemptions may be made by the Admissions Committee for students who have taken the placement assessment within the past three years, students with transfer credit for comparable coursework, and students whose SAT results exceed the pre-established cutoffs.

APPLICATION FOR READMISSION

Matriculated students who have taken a leave of absence, including military leave; have been dismissed from Eastern Maine Community College for academic or disciplinary reasons; or have had a voluntary break in enrollment may seek readmission to the same program under the following provisions. The catalog in force at the time of readmission will be used to determine program requirements. Students shall be subject to all rules and regulations effective at EMCC at the time of, or subsequent to, readmission. Re-entry into certain courses and/or programs will be on a space available basis.

Students seeking readmission must:

1. Submit an Application for Readmission (SNAP-APP);
2. Meet the admission requirements (including prerequisites for individual courses) which apply to the program at the time of readmission;
3. Send official transcripts for all courses taken since attending EMCC (all previous academic transcripts will be required if the student is returning after five years);
4. Be recommended for readmission by the Readmission Team.
5. In addition to the above-stated requirements, applicants who have been dismissed from EMCC must also submit a non-refundable $20 reapplication fee and an essay outlining what steps were taken since dismissal from the College to ensure academic success upon return to the environment.

Student material may be reviewed by a Readmission Team comprised of program faculty, the Director of Admissions, and the Academic Dean. This Team may request additional information from other EMCC faculty and staff and/or the applicant. An interview with the Readmission Team and/or references may be required. The student will be notified of the decision via letter from the Director of Admissions.

Any one or more of the following are examples of reasons that a request for readmission to Eastern Maine Community College may not be granted: 1) lack of available space in the program; 2) more than one dismissal from EMCC; 3) prior disruptive and/or damaging behavior; 4) failure to demonstrate adequate personal improvement since dismissal; 5) overdue balance owed to EMCC. There may be other reasons not listed.

DEFERRED ADMISSION

Students who have been accepted and who have paid the tuition deposit may postpone their matriculation for one semester or one year by making such a request in writing to the Director of Admissions. Permission to defer an applicant's admission is granted at the discretion of the Director of Admissions. Applicants whose admission is deferred are responsible for updating the Admissions Office of all pertinent changes (e.g. name, address, courses completed). The tuition deposit is retained by the Student Accounts Office unless the applicant chooses to withdraw and follows the refund policy.

TRANSFER CREDIT TO EASTERN MAINE COMMUNITY COLLEGE

Students may transfer credits earned at other regionally accredited colleges prior to beginning their programs of study. The responsibility rests with students to provide the Admissions Office with an official copy of each college transcript, mailed directly from each college to the Admissions Office. A copy of the college catalog(s) may be requested.

Generally, courses with grades of C (2.0) or better which are judged by Eastern Maine Community College to be equivalent to Eastern Maine Community College course offerings will be transferred. On occasion, examinations may be required to show competency of subject material. Students may transfer courses not to exceed

1. 75% of the total required credits and
2. 65% of the total technical course credits in a major field.

In general, only courses taken within the past ten years are reviewed. Courses older than ten years may require additional documentation in order for transfer credit review to occur. Eastern Maine Community College is the final judge regarding awarding of transfer credit from other institutions.

Students who have achieved acceptable College Level Examination Program (CLEP) or Defense Activity for Non-Traditional Education Support (DANTES) scores may also be granted academic credit if the course is in those students' programs of study. Transferred course grades and/or CLEP scores will appear on the students' College transcript but will not be used in computing grade point averages. Students with questions about these examinations should contact the Academic Affairs Office.

Eastern Maine Community College is a Servicemembers Opportunity College (SOC). Assessment of service-connected prior learning is conducted using various nationally-recognized resources for determining course equivalence. Students eligible for veterans' benefits must arrange for evaluations of all previous post-secondary educational experiences for possible transfer credit.

Awards of Excellence, Honors, High Honors, and other recognitions of achievement require that a student earns 75% of credits from courses taken at EMCC.

TRANSFER AGREEMENTS FROM EASTERN MAINE COMMUNITY COLLEGE TO OTHER COLLEGES AND UNIVERSITIES

Because Eastern Maine Community College is accredited by the New England Association of Schools and Colleges, Inc., most academic credits will transfer to other colleges and universities. General education courses usually transfer more easily than technical courses. It is important to remember that the receiving school has the right to determine whether or not credits will transfer.

NEW ENGLAND REGIONAL STUDENT PROGRAM

Qualified residents of New England states other than Maine may be admitted to Eastern Maine Community College at reduced tuition rates (in-state tuition plus 50%) through the New England Regional Student Program (NERSP), sponsored by the New England Board of Higher Education (NEBHE). The rate for 2010-11 is $126 per credit hour.

Financial Information

TUITION, ROOM AND BOARD

Currently, tuition is assessed at a rate of $86 per credit hour for in-state students and $172 per credit hour for out-of-state students. Students are advised that costs are subject to change without notice.

Combined room and board charges for 2012-2014 are as follows:

On-campus housing – Acadia Hall:
Room & Board per semester based on Meal Plan A is $3,450
Room & Board per semester based on Meal Plan B is $3,052

On-campus housing – Kineo Hall:
Room & Board per semester based on Meal Plan A is $4,200
Room & Board per semester based on Meal Plan B is $3,802

PARKING/VEHICLE REGULATIONS

Parking Decals: Student vehicles on campus must display a current College decal. Parking decals are available in the Facilities Management Office in Room 140 Maine Hall, between the hours of 8 a.m.-4:30 p.m., Monday-Friday. ***Health and Security Fee:*** All matriculated and non-matriculated students, faculty and staff must obtain a parking pass. The Safety and Security Fee helps cover the cost of day and evening security personnel for students on both the Bangor campus and our campus Centers. The annual College Safety and Security Fee is $2.50 per credit hour. Students who use multiple vehicles may obtain up to two (2) decals. A third decal may be purchased for $5.

Parking Fines: A $100 fine per offense will be assessed for parking in Handicapped parking spaces. A $50 fine will be assessed for parking in a fire lane. A $25 fine per offense will be assessed to students whose vehicle is parked in unauthorized areas. Grades and transcripts will be withheld if students fail to pay fines.

Vehicle Regulations:

- The speed limit on campus is 15 miles per hour.
- Parking on campus roads behind and beside the residence halls, in loading zones, on walkways, or on grassed areas is prohibited at all times.
- Motor vehicles must not be left on campus during vacations without making special arrangements with the Facilities Management Office

in Room 140 Maine Hall between the hours of 8:00 a.m. to 4:30 p.m., Monday – Friday.

- Excessive noise by vehicles or its occupants, or otherwise operating in a manner that is dangerous, is prohibited.

Violation Penalties: Vehicles parked in unauthorized areas may be ticketed and/or towed at the owner's expense, without warning. Unauthorized areas include, but are not limited to: parking in a "No Parking Zone", parking on the roadway, hindering snow removal, parking in unauthorized areas, not displaying a current EMCC decal, occupying more than one parking space, parking in handicap spaces without proper identification. Safety is always our concern.

BOOKS AND SUPPLIES

The costs of books and supplies vary by program of study. Charges for books and supplies are not billed to the student on the semester invoice. Payment is made directly to the College bookstore at the time of purchase. Students may be eligible for a college store credit if they have financial aid in excess of their semester bill, or if they qualify for the College's installment payment plan and choose to include a college store credit.

FEES

College Activity Fee: The College Activity Fee is $3 per credit hour. The College Activity Fee supports student activities at Eastern Maine Community College including sanctioned clubs and organizations, Student Senate, special events, the *Eagle Eye* student newspaper, recreation, and commuter services.

College Comprehensive Fee: The College Comprehensive Fee is $8.40 per credit hour. The College Comprehensive Fee supports student services at Eastern Maine Community College including health services, personal counseling, intercollegiate sports, registration, grades and transcripts, graduate job services, and student IDs. The fee does not cover technology, orientation, graduation, lab, health and accident insurance, residence hall recreation, or liability insurance fees.

Information Technology Fee: The College Information Technology Fee is $9.00 per credit hour. This fee supports computer services for students and provides all students with on-campus access to the Internet and e-mail. In addition, it helps to fund on-line library resources.

Student Accident and Sickness Insurance Fee: A $303 fee for this coverage is billed to all students carrying 6 or more credit hours; however, the fee may be waived upon receipt of proof of insurance on-

line, prior to the established deadline. The fee for students beginning classes in January 2011 will be $203. This fee is not refundable.

Liability Insurance Fee: The $12.90 fee per year for $1,000,000 malpractice liability insurance is mandatory for students in standard health occupation programs. The cost for $1,000,000 coverage for students in higher risk health specialty programs is $54.29 per year. This fee is not refundable.

Matriculation Fee: The $70 Matriculation Fee is a fee charged at the time of initial enrollment as a matriculated student. This fee covers costs associated with new student orientation and graduation. This is a one-time fee.

Residence Hall Recreation Fee: A residence hall fee of $65 per semester is required of all residents. Proceeds from this fee support activities and programs in the residence halls and includes basic cable television service to residents' rooms and lounges.

Residence Hall Security Deposit: The deposit is $100.

Technology Fees—Per Semester:
These fees vary by program to cover costs of supplies and materials. In addition, some technologies require special fees for national or state tests. Students are advised that these fees may change without notice. **These fees are charged on a <u>per credit hour</u> basis by technology course.**

Automotive Technology (ATA, ATH, ATT)	$ 16.80
Building Construction (BCT)	16.80
Business Management (BUA, BCA, BMT)	8.40
(Includes Health Care Secretary, Medical Transcription, Medical Office Technology)	
Civil Engineering Technology (CET)	16.80
Computer Aided Drafting and Design (CAD, DTG)	16.80
Computer Systems Technology (CST)	16.80
Culinary Arts (CUL)	16.80
Diesel, Truck and Heavy Equipment (ATA, ATT, ATH)	16.80
Drafting (DGD)	16.80
Early Childhood Education (ECE, EDB, PED)	8.40
Education (ECE, EDB, PED)	8.40
Electrical and Automation Technology (ELC,EPT)	16.80
Electricians Technology (ELC)	16.80
Emergency Medical Services (EMS)	16.80
Fire Science (FIR, FT)	8.40
Hospitality and Tourism Management (HTM)	16.80

Math/Science & Science (BIO, CHE, NUT, PHY, CHM, NUT) 16.80
Medical Assistant (MAS) 16.80
Medical Radiography (MRT) 16.80
Nursing (NRG, NUR) 16.80
Refrigeration, Air Conditioning and Heating (RAH) 16.80
Surgical Technology (SUR) 16.80
Welding/Pipe Fabrication (FIT, WEL) 16.80

Other courses having fees:
(ART, ASL, COL, CPT, ECO, ENG, FT, FYE, GEN, GIS, HIS, HUM, ISA, KOR, LAE, LAM, MAT, PHI, PSY, SOC, SPA, SPE, TTO) 8.40

Certification/Licensing Fees:

Automotive:
- ASE Certification Testing (Required, Non-Refundable) per semester ..... $ 100.00
- Maine State Inspection Fee (Required, Non-Refundable) Only charged in Spring Semester ..... $ 34.00
- Technician Test Prep ..... $ 42.00

Diesel, Truck & Heavy Equipment:
- ASE Certification Testing (Required, Non-Refundable) per semester ..... $ 100.00
- Maine State Inspection Fee (Required, Non-Refundable) Only charged in Spring Semester ..... $ 20.00
- Technician Test Prep ..... $ 33.00

Nursing:
- ATI Skills Fee – NUR 105 ..... $ 100.00
- Kaplan Resource/Testing Fee – NUR 105, NUR 136, NUR 267, NUR 270 ..... $ 93.75

Refrigeration, Air Conditioning, and Heating: – per semester
- RAH Certification/Licensing Fee (Required, Non-Refundable) . $190.00

Surgical Technology:
- National Certification Exam – SUR 123 ..... $ 190.00
- National Certification Exam – SUR 105-Membership Fee ..... $ 45.00

Welding:
- Welding Certification Fee (WEL134, WEL137, WEL277) ..... $ 300.00

Lab fees are charged per course:

Materials Lab (CET 111) ..... $ 23.15
Soils Mechanics (CET 214) ..... $ 23.15
First Responder (EMS 100) $110.00
Emergency Medical Technician – Basic (EMS123) $115.00
First Responder to EMT-Basic Bridge (EMS 124) $100.00
Advanced Healthcare Provider to EMT-Basic Bridge (EMS 125) .. $100.00
Fundamentals of EMS (EMS 201) $125.00

Cardiac/Respiratory Emergencies (EMS 202) ..... $ 75.00
Intermed. Clinical Preceptorship & Field Exp. (EMS 206) ..... $ 80.00
Advanced Emergency Cardiovascular Care (EMS 208) $150.00
Emergency Care Across the Lifespan (EMS 212) $200.00
Paramedic Skills Seminar (EMS 214) $250.00
Paramedic Clinical Preceptorship & Field Exp. I (EMS 215) ..... $ 80.00
Paramedic Clinical Preceptorship & Field Exp. III (EMS 217) $180.00
Paramedic Emergencies II (EMS 231) $200.00
Paramedic Emergencies III (EMS 233) $100.00

MAINE RESIDENCY

A. Introduction - This policy defines the category of students and/or student applicants who qualify for the Maine Community College System (MCCS) in-state tuition rate.

B. Policy - The following students qualify for the MCCS in-state tuition rate.

1. Students who have established a Maine residence within the meaning of this policy. For purposes of this policy, a student has established a "Maine residence" if the student has:

a. Established a primary domicile in Maine for at least the 12 consecutive months immediately preceding college admission (not application, registration or enrollment), and does so for reasons other than the student's education. Evidence of such domicile includes the student's primary physical presence, degree of settled connections and sincere regard for that domicile as home, all as judged by factors like those set forth in section D below; and

b. A sincere intent at the time of admission to reside in Maine following the student's projected graduation date.

2. Students who are claimed as dependents for tax purposes by a parent or other guardian, provided such claimant(s) are themselves residents within the meaning of this policy.

3. Students who are members of the Armed Forces during their period of active duty in Maine, or who are claimed as dependents by members of the Armed Forces during such member's period of active duty in Maine.

4. Students who are married to, or domestically registered with, a person who is a resident within the meaning of this policy, provided that the student intends to establish and maintain a domicile in Maine.

5. Students who quality through a special MCCS program that otherwise grants in-state rate access. Current examples of such programs include the APPLE and New Brunswick Community College initiatives. (Students other than New Brunswick Community College students, who are not legal residents of the United States, do not qualify for the MCCS in-state tuition rate.)

C. Evidence of Residence – All factors and circumstances relating to determination of residency are considered on a case-by-case basis. The burden is on the student to prove establishment of Maine residence for other than educational purposes. Examples of factors considered include: signed residential lease, filing of Maine resident state income tax; Maine address on latest federal income tax return; home ownership and payment of property taxes in Maine; driver's license; voter registration; marriage license or domestic registration; and/or military home of record in Maine.

D. Mid-Semester Change in Status – A student's classification for resident or non-resident tuition shall apply for the entire semester for which the classification was made and shall not be changed once a semester commences, provided that erroneous classifications may be reviewed and addressed as a college determines is appropriate.

E. Temporary Absence from the State – Maine residents who are absent from the State for military or full-time educational purposes will normally remain eligible for in-state tuition, provided such persons continue during such period of temporary absence to claim Maine as their state of residency on all official documents and declare income earned out-of-state on Maine income tax returns.

PAYMENT OF COSTS

Student Responsibilities: The College expects students to be financially responsible. All accounts are carried in the names of students and all bills and statements are posted to students studentOne accounts.

Billing: Matriculating students are billed for courses on a per credit hour basis each semester. Payment of enrollment costs is due upon receipt of bills, unless other arrangements have been made with the Business Office/Student Accounts. Full payment of the semester charges within the time prescribed is a prerequisite to registration and inclusion on the official class lists. Returned checks will be subject to a $25 service fee.

Private Scholarships: Scholarships may be listed on a student's statement of account and deducted from the student's current charges. If funds from the scholarship source are not received in a timely manner, the credit will be removed and the student will be responsible for the remaining balance.

Sponsored Students: If a student's tuition bill is being paid by a Federal, State, or Private Agency, the student is responsible for providing Student Accounts staff with a current letter of intent or authorization. The letter should verify the name of the sponsored student, the terms/conditions of the sponsoring agency and details of tuition, fees, and books to be billed. Student Accounts will apply Financial Aid (Pell/SEOG/ME State Grant) funds awarded to the student's account before the sponsoring agency is billed, unless otherwise stated on the letter of intent or authorization. If the sponsoring agency requires Stafford Loans to be used, it must state that on the authorization. EMCC does not accept verbal authorizations from sponsors. Authorizations and/or purchase orders may be faxed to the Business Office at (207) 974-4666. Without this authorization, EMCC is required to bill the student for all charges.

Unpaid Financial Obligations: Students are not permitted to attend classes after the first week of any semester if their semester bills have not been paid in full or if specific arrangements for payment plans have not been made with the Business Office/Student Accounts. Students who are delinquent according to signed agreements with the Business Office/Student Accounts may be dropped from enrollment or may be assessed late charges. Residential students who are delinquent in the payment of room and board charges may be dismissed from the residence halls.

The College is authorized to withhold grades, degrees, diplomas and transcripts from students for failure to pay all lawful fees and charges. A $50 late fee will be applied to delinquent accounts.

DEPOSITS

Tuition and Room: A tuition deposit of $75 is required upon notification of acceptance. To ensure a space in the residence halls, an additional $100 room deposit must be paid. Deposits will be credited to semester bills and will be refunded only if written notification of non-enrollment is sent to the Admissions Office before May 1 for fall enrollment and before September 15 for spring enrollment. Students admitted and making a deposit after these deadlines will have 30 days from the date of acceptance to request a refund.

Room Deposit: A Residence Hall Deposit of $100 is required of all students who plan to live in a residence hall. Returning students must submit this deposit by April 15 for fall enrollment to retain their room assignment. This deposit will be credited to the semester bill, and is non-refundable after July 1.

STUDENT BILL ADJUSTMENT POLICY

Definitions: Bill Adjustment—Financial change made to a student's bill/account.

Deposits—Charges held for a particular reason. For example, deposits are used to hold a student's space in a program of study, in a technology, or in a residence hall.

Semester-long Day Course—A course which is offered for the entire length of the semester, usually 15-16 weeks. Semester-long courses are usually general education courses such as mathematics, English, social sciences, and science courses. A number of technology courses are semester-long.

Modular Course—A course that does not follow a standard day schedule. Modular courses vary in length, instructional time and day. Frequently, these courses are offered in a sequence over the course of a semester.

Summer/Evening/Weekend Course—Course taught after 5 p.m. or taught at a time other than the fall and spring semesters, Monday through Friday format.

Bill Adjustment Schedule for Students Enrolled in Credit Study (Tuition, Room and Board, Comprehensive Fees, Course Fees, and Technology Fees): Bills will be adjusted when a student withdraws from a course or college, following College policy and procedures. The stated course, add/drop, and college withdrawal procedures ensure that all offices are informed of the enrollment status of a student and that bill adjustments are completed correctly.

The following schedules are based on Maine Community College policy and is used to adjust tuition, room and board, residence hall recreation fees, comprehensive fees, course fees, and technology fees.

Percentage of Costs Credited To Bill*	Semester-long Day/Modular/Evening/ Summer Courses	Procedure
100%	Course cancelled by College	**Adjustments will be made to student's account by College**
100%	Official withdrawal from a course which produces a net reduction in student's semester credit hours and which is **within 6 calendar days of the semester's first day of classes**	**Withdrawal from college or schedule adjustments** - Go to Enrollment Center (Katahdin Hall)
50%	Official withdrawal from a course which produces a net reduction in student's semester credit hours and which is **between 7 and 10 calendar days of the semester's first day of classes**	**Course Withdrawal –** Go to Enrollment Center (Katahdin Hall)
0%	Official withdrawal from a course which produces a net reduction in student's semester credit hours and which is **after 10 calendar days of the semester's first day of classes.**	**Course Withdrawal -** Go to Enrollment Center (Katahdin Hall)
0%	**Unofficial withdrawal at anytime – including "no shows"**	
*Required deposits will be retained by the College.		

Exceptions to refund policy are possible due to the following:

1. Refunds for room and/or board cancelled after a semester begins due to an unexpected or uncontrollable event.

2. Exceptions on a case-by-case basis for students who present unusual and compelling medical or other significant extenuating circumstances. These exceptions can be made only at the senior management level.

Refunds of Room and Board Charges		
Percentage of Costs Credited To Bill*	**Semester-long Day/Modular/Evening/ Summer Courses**	**Procedure**
100% of room and board charges	College residence cancelled by College	**Adjustments will be made to student's account by College**
100% of room and board charges	Official withdrawal from a college residence prior to the: **semester's first day of classes**	**Notification from student to Residential Life**
80% of room and board charges	Official withdrawal from a college residence prior to the: **End of the second week of classes**	**Notification from student to Residential Life**
60% of room and board charges	Official withdrawal from a college residence prior to the: **End of the third week of classes**	**Notification from student to Residential Life**
40% of room and board charges	Official withdrawal from a college residence prior to the: **End of the fourth week of classes**	**Notification from student to Residential Life**
20% of room and board charges	Official withdrawal from a college residence prior to the: **End of the fifth week of classes**	**Notification from student to Residential Life**
0%	Official withdrawal from a college residence anytime after the end of the fifth week of classes	
0%	Unofficial withdrawal from a college residence at anytime	
*Required deposits will be retained by the College.		

Bill Adjustment Schedule for Non-Credit Courses, Seminars, and Workshops		
Percentage of Costs Credited To Bill*	**Conditions**	**Length of Course**
100%	Course cancelled by College	Any length
100%	Student withdrawal prior to the start of the course	Any length
80%	Within 10% of instructional time	Over 15 hours
50%	10-25% of instructional time	Over 15 hours
0%	Over 25% of instructional time	Over 15 hours
0%	After start of instructional time	Less than 15 hours

Selected non-credit courses have registration fees, which are retained by the College.

Modular courses may be prerequisites for subsequent modular courses. Students enrolled in modular courses, who either drop enrollment in their technology or fail a module, may not be allowed to attend other modular courses in the sequence. In such cases, the student bill will be adjusted using the bill adjustment schedule.

Note: Federal Title IV financial aid recipients may lose financial aid and/or be required to repay financial aid if enrollment and cost of attendance are decreased. It is wise to consult with a financial aid advisor prior to making any adjustments to enrollment status or course enrollment.

Bill Adjustment for Matriculation Fee: The Matriculation Fee is a one-time administrative fee charged at the time of initial enrollment as a matriculated student. No adjustment for this fee will be made to the student's account after the beginning of the semester or completion of orientation. If a student chooses not to attend orientation or graduation, the student is not exempt from this fee.

Bill Adjustment for Deposits: Deposits are addressed in various ways.

Tuition Deposit for Newly Accepted Students: A tuition deposit of $75 is required upon notification of acceptance into a program of study. This deposit is credited to the semester bill. Newly accepted students are asked to send this deposit to hold a place in the program of study.

On occasion, newly admitted students may change their educational plans and not enroll. In order to receive a full refund of the tuition deposit, these students must notify the Admissions Office by May 1 for fall semester enrollment and by September 15 for spring enrollment.

Residence Hall Room Deposit: On occasion, students may make other plans and decide not to reside on campus. In order to receive a refund of the residence hall deposit, these students must notify the Director of Residential Life <u>in writing</u> by July 1st for fall semester residency and by December 1st for spring semester residency.

Room deposits for students who apply and are unable to be assigned campus housing will be refunded or applied to any outstanding bill on file with the EMCC Business Office. Following the first day of the semester, adjustment to student bills will follow the previously stated bill adjustment schedule.

Residence Hall Security Deposit: The Residence Hall Security Deposit of $100 is held until the end of the academic year. All or part of this fee is refundable upon departure provided that:

a) The resident's room, furnishings and public areas are in the same condition as they were during move in, all belongings have been removed and room has been cleaned.
b) The resident follows the proper checkout procedure as outlined in the Residential Life Handbook, which includes a room inspection by the Resident Director of his/her designee
c) The resident leaves for reasons other than a violation of the Student Code of Conduct or Housing Contract

In addition, repairs for damages which occur in public areas that cannot be assigned to an individual will be divided amongst the occupants/residents of the building and deducted from each occupant/resident's security deposit. Any charges which exceed a resident's security deposit will be added to the student's account with the Business Office. In addition, the Business Office reserves the right to retain any resident's security deposit to cover any outstanding charges on the student's account.

Bill Adjustment Schedule for Non-Credit Courses, Seminars, and Workshops: Both matriculated and non-matriculated students may enroll in non-credit courses. Selected non-credit courses have registration fees, which are retained by the College. The bill adjustment schedule for non-credit courses is as follows.

Percentage of Costs Credited To Bill	Conditions	Length of Course
100%	Course canceled by the College	Any length
100%	Student withdrawal prior to the start of course	Any length
80%	Within 12.5% of instructional time	Over 15 hours
50%	10-25% of instructional time	Over 15 hours
0%	Over 25% of instructional time	Over 15 hours
0%	After start of instructional time	Less than 15 hours

Bill Adjustment for Workshops, Seminars, and Conferences: Full refunds will be issued for seminars, workshops and conferences if notice is received 5 days prior to the day of the program. A non-refundable registration fee may be charged for workshops, seminars, and conferences.

If, for unusual circumstances (i.e. medical problems, death in the family), a student withdraws from a non-credit course, workshop, seminar, or conference, and if a student so requests, a credit for a future offering of the same course, workshop, seminar, or conference may be given at the discretion of the program coordinator in place of the bill adjustment.

Bill Adjustment for Customized Training: The College offers a number of customized training activities through special contracts for businesses. The conditions of bill adjustments are negotiated with the individual businesses.

Student Financial Aid

The Student Aid Office reviews requests for financial aid after applicants have been admitted to the College and administers a variety of programs to help students finance their education.

FINANCIAL AID APPLICATION PROCESS

Students who wish to apply for financial aid must complete a Free Application for Federal Student Aid (FAFSA) annually.

The Student Aid Office gives priority to students whose applications are filed prior to May 1; late applications will be considered only if funds are available. The FAFSA worksheet is available at high school guidance offices as well as the College's Student Aid Office. Students should file the FAFSA electronically at www.fafsa.ed.gov.

All financial aid applicants are considered without regard to age, gender, race, ethnic origin or physical ability, except in those cases where aid is intended to rectify a prior or existing imbalance in minority or other group participation in the education process.

Special Note: Students who extend their studies beyond two years may be enrolled less than full-time at some point in their program of study. Less than full-time student status can affect financial aid.

TYPES OF FINANCIAL ASSISTANCE

Federal Pell Grants are need-based federal grants which are available to students pursuing their first undergraduate degrees.

Federal Supplemental Educational Opportunity Grants (SEOG) are federal funds available to students pursuing their first undergraduate degree and showing the highest financial need.

Eastern Maine Community College Grants are based primarily on need.

Federal Work-Study provides federally-funded student employment on the campus. Jobs may provide work experience, as well as regular income for educational expenses. Students are limited to part-time work, and eligibility is based on need.

State of Maine Grants are need-based grants for Maine residents who file a FAFSA by May 1.

Federal Subsidized Direct Loans are based on financial need. Interest rate is set on July 1 each year; principal and interest are deferred until six months after graduation.

Federal Unsubsidized Direct Loans are not based on financial need. Interest accrues on the loan while attending EMCC.

VETERANS' BENEFITS

Students who plan to receive veterans' benefits must see the Student Aid Director to initiate paperwork. Veterans' benefits include Montgomery GI Bill-Active Duty (Chapter 30), Post 9/11 (Chapter 33), Montgomery GI Bill-Selected Reserve (Chapters 1606), Reserve Educational Assistance Program (REAP/Chapter 1607), Veterans Retraining Assistance Program (VRAP) Survivors' and Dependents' Educational Assistance Program (DEA/Chapter 35).

Most Eastern Maine Community College degree, diploma, and certificate programs have been approved by the Maine State Approving Agency for Veterans Education Programs. Most non-credit courses and programs are not approved. (Exception: Maine Oil Dealers Association High Pressure Boiler Course.) Students receiving veterans' educational assistance are required to have all their previous post-secondary educational experiences evaluated for transfer of credit **prior** to certification of benefits. Additional information concerning veterans' benefits is available at the Enrollment Center.

Degree Status

To receive VA Educational Benefits, a veteran must apply for admission to a specific academic program. Only courses that fulfill program requirements of their major are used to determine the number of credits approved for benefits by the VA.

Request for Certification

Students who receive VA Educational Benefits must complete and submit a Request for Certification each time they register for courses. If the student's Request for Certification is not submitted at least sixty days prior to the beginning of the semester, it may cause a delay in the arrival of the benefit check.

Continuous Pay

Veteran/dependent students enrolled in six or more credit hours will receive continuous pay between semesters provided there is not more than a thirty day break in class attendance between the ending of one semester and the beginning of the following semester.

MAINE NATIVE AMERICAN TUITION WAIVER

Eastern Maine Community College waives tuition for full time, matriculated students, enrolled in academic, credit-bearing courses whose names are included on the current tribal census, or who have at least one parent or grandparent included on the current tribal census of the Passamaquoddy Tribe, the Penobscot Nation, the Houlton Band of Maliseets, or the Aroostook Band of Micmacs.

Students must provide proper official proof directly from the tribe, Nation or Band. Applications are available from the Enrollment Center. Fees are not covered by this tuition waiver and are the student's responsibility.

WITHDRAWAL FROM EASTERN MAINE COMMUNITY COLLEGE AND FINANCIAL AID

Students who receive Title IV federal financial aid and completely withdraw from Eastern Maine Community College on or before the 60 percent point in the term (in calendar days) are entitled to keep only the portion of Title IV federal student aid earned to the point of withdrawal from the College. If a student receiving federal financial aid withdraws after the 60 percent point of the term, s/he is considered to have earned all of their federal student aid for that semester.

Federal law mandates that a student must earn his/her federal student aid or the funds must be returned to the federal financial aid programs. If any federal aid was disbursed directly to the student, s/he is responsible for returning unearned funds to the federal financial aid programs within a timely manner. Failure to do so may result in the student's ineligibility for future federal student aid.

Title IV federal financial aid includes: Federal Pell Grants, Federal SEOG, Federal Academic Competitiveness Grant, Federal Stafford Loans (subsidized and unsubsidized), and PLUS Loans. Federal Work Study is excluded. For Title IV eligible students who officially withdraw from the College, the withdrawal date is either the date the student began the College's withdrawal process, or officially notified the Academic Dean's Office of intent to withdraw. Per federal regulations, if the student does not officially withdraw, the date is either the midpoint of the semester or a date determined by documented academically-related activity. A student who had not officially withdrawn and fails to earn any academic credit for a semester will be considered to have unofficially withdrawn at the midpoint of the semester. Title IV aid will be adjusted accordingly, unless the student is able to prove completion of at least one semester-length course.

Students who withdraw may be entitled to a partial adjustment of tuition, room and board and certain fees under the College's standard bill adjustment policy.

Refunds to the student and/or to the federal financial aid programs by the student or the College will be made within 45 days of the date that the College determines the student has withdrawn.

The following chart will help explain how refunds are calculated. Refer to the column which applies to a student's withdrawal/federal student aid status at Eastern Maine Community College. The center column shows the percentage of charges to be adjusted. The right column shows the approximate percentage of Title IV aid unearned. The College will calculate a student's refund (return of Title IV aid) under the policy, which applies to a student's status and withdrawal. **Note that when a student fully withdraws, any charges that have not been paid are still owed to the College.**

REFUND/UNEARNED FEDERAL AID PERCENTAGE CHART		
Fall and Spring Semesters	**%s of charges to be adjusted Title IV Aid***	**Percentage of Unearned Aid**
Before Classes Begin	100%	100%
Week 1	80%	94%
Week 2	80%	88%
Week 3	50%	81%
Week 4	50%	75%
Week 5	0%	69%
Week 6	0%	63%
Week 7	0%	56%
Week 8	0%	50%
Week 9	0%	44%
Week 10-16	0%	0%
***Approximate percentages due to use of calendar days and represents amount of student aid that is unearned at the point of withdrawal and may be returned to the federal student aid programs.**		

Additional information about the return of Title IV federal student aid and withdrawal is available from the Student Aid Office.

Student Support Services

COUNSELING SERVICES

Fully aware that the value of the college experience may be greatly affected by personal problems, needs and interests, Eastern Maine Community College regards counseling services for academic or personal concerns to be an integral part of the total educational program. As a commitment to student success, the College offers students the following service:

Personal Counseling: Professional individual counseling is available to all Eastern Maine Community College students through both on- and off-campus counseling professionals. Appointments can be made through the Dean of Enrollment Management Office or by the student. Additionally, students often find faculty and staff supportive in addressing personal issues. Students are encouraged to contact 974-4604 for additional information on counseling services. There will be no charge to the student for a maximum of three visits to the off-campus provider. Additional visits may be considered with approval from the Dean of Enrollment Management Office. All information is confidential and no personal information will be released by the office.

OUTPATIENT HEALTH SERVICES

Eastern Maine Community College offers to all of its students, outpatient health services through the Penobscot Community Health Center's Brewer Medical Center, located at 735 Wilson Street in Brewer. These services are free of charge to all Eastern Maine Community College students who set up their appointments with the Dean of Enrollment Management Office, or by showing their student identification cards at the walk-in office, also located at 735 Wilson Street in Brewer. **Appointments are mandatory to receive the services, unless the student chooses to utilize the walk-in clinic.** Charges will be due for lab tests and x-rays. Students who are enrolled in the Student Accident and Sickness Insurance plan may submit medical claims to the Dean of Enrollment Management Office for these lab tests and x-rays.

Eastern Maine Community College offers no on-campus health services. Services provided by Penobscot Community Health Center include: treatment of acute illnesses, treatment of injuries, counseling and testing for various health-related issues, and referrals as needed.

STUDENT CAREER SERVICES

Eastern Maine Community College does not have a "placement office" and does not offer a guarantee of employment. Graduates assume the

primary responsibility of their own searches. Employment opportunities are posted on the Eastern Maine Community College website, www.emcc.edu, when submitted to the Dean of Enrollment Management office, located in Room 124, Katahdin Hall. The Eastern Maine Community College Library Career Center is also a valuable resource. The faculty are often excellent resources.

Employment statistics, including average salary by technology, are available from the Dean of Enrollment Management.

RESIDENCE HALLS

Acadia and Kineo Halls are chemical-free residence halls and provide housing for approximately 260 students. The halls are staffed with two Resident Directors and eight Resident Assistants who offer help with personal and academic concerns. The Director of Residential Life, Activities and Student Engagement oversees the Residential Life Department. The McCorkill Dining Hall, located in Katahdin Hall, is open seven days a week during the academic year. Meal options are available for commuters, faculty and staff.

Additional services and regulations governing the residence halls are contained in the Residential Life Handbook that is available in the Director of Residential Life Office as well as the lobby and Resident Directors' Offices in each hall.

LIBRARY

The Eastern Maine Community College Library is located on the second floor of Katahdin Hall. The Library is wireless and offers several types of reading and study areas as well as computers and laptops for students to use for research and class assignments. The Library collection of print and online materials includes a wide variety of books, journals, and newspapers to support students in both technical and liberal studies programs.

The Library website found at http://www.emcc.edu/ offers thousands of online resources such as journals, newspapers and books. The website also hosts tutorials and subject guides to help students with their research. Citation help is also available on the website via Noodle Tools. The Library Blog on the website lets you know what is new at the Library including upcoming Library events.

The Library offers tours, research workshops and classes. Staff librarians are happy to answer any question you may have. Assistance is offered in helping students locate, evaluate, and effectively use resources. You

may stop by the circulation desk or schedule an appointment with a librarian for research assistance.

Students may borrow books for two weeks with the exception of Reference books and Course Reserves which remain in the Library. Print periodical back issues circulate for a week. You will need your EMCC ID to check out materials. Your library barcode is 2644000 + 7 digit EMCC ID #. The Library is open Monday-Thursday from 8am-9pm, Fridays from 8am-5pm and Sundays 1pm-5pm during the academic year. Break and summer hours change and are posted on the Library website. Stop by or call us today at 974-4640.

RECREATIONAL SPORTS AND GYM USAGE

Eastern Maine Community College offers an organized and balanced recreation program. Intramurals consist of team, dual, and individual competitive women's, men's and co-educational leagues.
The Recreational Committee coordinates all recreational sports offerings. The committee meets on a bi-weekly basis.
Open gym is advertised for drop-in use by the College community. The gym is open to all students offering a variety of activities, free of charge with a current student I.D. card. All visitors and guests will need to pay a usage fee for each visit. The fee will be posted in the Johnston Gymnasium.

COLLEGE STORE

The College Store, located in Maine Hall, opens weekdays at 7:30 a.m. and closes at 2:30 p.m. Monday through Friday. The College Store is open until 6:30 p.m. during the first week of evening classes. In addition to textbooks and supplies, the College Store carries a variety of Eastern Maine Community College clothing, gifts, greeting cards, and health and beauty aids.

STUDENT SENATE

Meeting at noon every Wednesday in the Center for Student Leadership (Katahdin—3rd floor) these student leaders seek to fulfill the Student Senate objectives which include promoting the general college welfare, serving the students' best interests, and helping to provide a lively college spirit. All students are invited to attend Student Senate meetings and provide ideas for the betterment of the College community. Student organizations may petition the Senate for monies to carry out their activities.

The Student Senate is advised by Alissa Downing, Director of Residential Life, Activities and Student Engagement.

COMPUTER LABORATORIES

Several computer facilities are available to students when not used for classroom instruction. These include computer laboratories located in the Nickerson Wing of Maine Hall and two CAD laboratories in Rangeley Hall. In addition, computers are available in the Library, technology departments, and the student lounge area in Maine Hall. Computers are also available at the Off-Campus Centers. Students are encouraged to use these facilities and to become familiar with the policies and procedures governing their use.

TUTORING

Eastern Maine Community College is committed to student success. In keeping with that philosophy, tutoring and other academic support services for Eastern Maine Community College students are available through the Academic Support Center in Maine Hall. Arrangements for obtaining this type of assistance can be made directly through the Center.

VISITORS

Visitors/children are not allowed in classrooms, shops or labs or other areas of the College without prior permission of the classroom instructor or appropriate supervisor. Children should not be left unattended in any area of the College.

Students' Rights

RIGHT TO APPEAL

Eastern Maine Community College is dedicated to providing students with fair and equal adjudication of student grievances. The steps must be made in order of progression, and all information and decisions are made available to the next level of appeal.

The appeal rights of the following provisions apply to those cases in which Eastern Maine Community College has not invoked the Student Code of Conduct or is not a residential life contract violation. In those cases where the College does not invoke the Student Code of Conduct or in which a residential life contract violation has not occurred, the appeal rights of the following provisions apply in lieu of, and not in addition to, the appeal rights accorded in the Student Code of Conduct.

When a student has reason to question an administrative, staff or faculty decision, the following procedures shall apply.

Step One. The student should first discuss the concern with the person s/he has the concern with. This must be discussed within five (5) working days of the decision. Maximum efforts should be made toward resolution of concerns on this informal level. However, if the concern persists, then the student should proceed to Step Two.

Step Two. The student may appeal to the immediate supervisor of the administrator, staff person or faculty member involved. This appeal must be made within five (5) working days of the decision in question. The person receiving the appeal must respond in writing within five (5) working days of receiving the appeal. Step Two will be the final step in the appeal process.

Step Three. The appeal process may continue through to the level of the Eastern Maine Community College President using the process described in Step Two above.

STUDENT CODE OF CONDUCT

See current Student Handbook, which may be found on the College web site or in the Library.

RIGHT TO PRIVACY

The Family Education Rights and Privacy Act of 1974, known as the "Buckley Amendment," requires that Eastern Maine Community College obtain consent in writing before releasing your educational record, except to specified parties. The intent of the Act is to protect the privacy of students with regard to access to records and to providing release of such records. The opportunity for a hearing to challenge such records should be obtained from the Dean of Enrollment Management and Institutional Research Office, located in the Enrollment Center. Third parties who may have access to educational records of students without prior written consent include:

A. Eastern Maine Community College officials who have legitimate educational interests;
B. Officials of other schools in which the student seeks or intends to enroll;
C. Certain authorized federal agencies;
D. Persons in connection with the student's application for, or receipt of, financial aid;
E. Organizations conducting studies for, or on behalf of, educational agencies or institutions;
F. Accrediting organizations;

G. Parents of a dependent student as defined by the Internal Revenue Code of 1954; and
H. Judicial authorities.

Under the Solomon Amendment enacted in 1996, the College is required to provide directory-type information for students at least 17 years of age upon request of representatives of the Department of Defense for military recruiting purposes.

The Office of Institutional Research and Student Data makes available the students' name, class, major, home address and local address as well as telephone numbers. You may request that your current year's directory information be suppressed from public distribution by contacting the Enrollment Center and completing the appropriate form no later than September 30 (January 31 for those students beginning their program of study in January) of the current school year.

If you request the public directory information be suppressed, then any request from parents, relatives, friends, student organizations, and all others who may wish to contact you will be denied. Only in emergency situations will we release information concerning your whereabouts to other than those persons authorized under the Act.

Academic Information

FULL-TIME STUDENT STATUS

Matriculated students who are registered for at least 12 credit hours of instruction per semester are considered full-time students. Conversely, matriculated students who are registered for fewer than 12 credit hours of course work per semester are part-time students. Students should note that most programs require more than 15 credit hours per semester in order to graduate in two years or less.

MATRICULATED STATUS

A student who is admitted to a particular program of study and who continues to make satisfactory academic progress is considered to be a matriculated student. Loss of matriculation status may carry financial aid implications.

GRADING SYSTEM

Grades are given as letters with the option of assigning plus or minus to represent levels of achievement. Letter grade designations include the following.

A Highest honors
B Honors
C Satisfactory
D Minimal passing grade
F Failure to meet course objectives
P Satisfactory completion of an ungraded course. No quality points for computation of grade point average (GPA) are assigned, but credit hours are applicable toward graduation requirements.
AF Administrative Failure
Dropped from a course for reasons other than grade performance, such as not meeting course attendance requirements. The quality point value of this grade is zero points or the same as an F grade and will be computed as such in the student's GPA
W Withdrawal
Withdrawal from a course after add/drop (10 percent of course) to the midpoint (50 percent of the length of the course) for reasons of health or other extenuating circumstances. No value assigned, nor is it used in computing the GPA
I Incomplete
All course work is expected to be completed by the end of the semester. In exceptional circumstances, students may be given an "I" (incomplete) grade if they fail to complete their course work on time. One additional semester is provided to the student to complete their "I" grade. At the end of that semester, an "I" grade will be converted to an "F" (failing) grade if the student has not completed missing work and a grade change has not been submitted to the Office of Institutional Research and Student Data.
NG No grade at this time

AUDIT

Students may audit an Eastern Maine Community College course provided that they meet the course prerequisites. They must pay normal tuition and lab fees for the course. Students auditing a course receive no credit for that course. Their academic transcript will record the course with a grade of "AU" for audit. Permission to audit courses may be withheld due to class size limitations, as students taking courses for credit have first registration priority. Request to audit a course must occur within the add-drop period. Request to change status from credit to audit must occur by the mid-point of the semester.

GRADE APPEALS BY STUDENTS

The academic appeals process for students who have concerns about grades or course activities consists of a four part process:

Step One. The student starts by talking with the responsible instructor.

Step Two. If resolution of the issue is not satisfactory to the student, then the student may appeal to the department chair of the faculty member's department.

Step Three. If resolution is still not satisfactory, then the student may appeal to the Academic Dean.

Step Four. As the final step of the appeals process, the student may appeal to the President of the College.

GRADE POINT AVERAGE

Letter grades equal the following point values, which are used to calculate term and cumulative grade point averages (GPA)

A = 4.00	A- = 3.67	B+ = 3.33	B = 3.00	B- = 2.67
C+ = 2.33	C = 2.00	C- = 1.67	D+ = 1.33	D = 1.00
D- = 0.67	F = 0.00	AF = 0.00		

A grade point average is calculated by multiplying the point value (0.00 to 4.00) for the letter grade earned (A to F) by the number of credit hours per course. The products are totaled and are then divided by the total number of credits hours carried during the semester.

Grade point averages computed by the semester are referred to as term grade point averages. Grade point averages computed for all courses taken to date are referred to as cumulative point averages.

Only Eastern Maine Community College courses are used to determine grade point averages.

PRESIDENT'S LIST

At the end of each semester the Academic Dean prepares for the President a list of those full-time Dean's List students who have earned a grade point average of 4.0. Students may not have incomplete grades to be considered for the President's List. The President offers special recognition to these students.

DEAN'S LIST

For the purpose of recognizing academic excellence among full-time matriculated students, each semester the Academic Dean will prepare a list of those students who have earned a semester grade point average of 3.25 or higher with no course grade below a C. Students may not have incomplete grades to be considered for the Dean's List. Full-time students are registered for at least 12 credit hours for the semester.

HONORABLE MENTION LIST

Eastern Maine Community College recognizes and applauds the academic accomplishments of its part-time students through the Honorable Mention List. All of the following criteria must be met for a student to be eligible for the Honorable Mention List.

- Must be matriculated
- Must be enrolled in 6-11 credit hours
- Must have earned a C or better in every course
- Must not have any incomplete grades for the semester
- Must have earned a semester grade point average of at least 3.25

PHI THETA KAPPA INTERNATIONAL HONOR SOCIETY

The purpose of Phi Theta Kappa is the recognition and encouragement of scholarship among associate degree students. To achieve this purpose, Phi Theta Kappa provides opportunities for the development of leadership and service, an intellectual climate for exchange of ideas and ideals, lively fellowship for scholars, and stimulation of interest for continuing academic excellence.

Membership is extended by invitation. To be considered for membership, a student must:

- be enrolled during the semester that the invitation is being extended;
- have completed a minimum of 12 academic credit hours (in 100-level courses);
- have a grade point average of 3.5 or higher;
- be of good moral character and possess recognized qualities of citizenship; and
- be recommended by at least two faculty members.

Membership is recognition of intellectual achievement while students are enrolled in college, as they continue their education, and as they seek employment. Membership avails opportunities for leadership and service locally, regionally, and nationally.

The membership fees are the sole resource by which Phi Theta Kappa is able to provide education and cultural programs and services for its members.

MAXIMUM COURSE LOAD

No student will be permitted to enroll in more than 21 credit hours per semester without the permission of the Academic Dean.

STUDENT EXCHANGE EXPERIENCES

Eastern Maine Community College will offer up to three college credits for student exchange experiences in other countries. In order to earn credit, students are required to satisfy predetermined goals and objectives. Sixty hours of on-site experiences will be worth one credit hour, with a maximum of three credit hours for any single exchange experience. The final grade will be pass or fail.

ACADEMIC PROBATION

Probation is a means of identifying those students who are in academic jeopardy, and must show academic improvement in order to continue their studies. Probationary status will be determined by cumulative grade point averages below 2.0 for 6 credit hours or more of course work. Probationary status is removed when students raise their grade point average to 2.0 or better.

Students will be sent notification of probationary status and are encouraged to create a student success plan. They are also encouraged to use the services of the Academic Support Center. The Academic Dean may impose conditions which are academically appropriate for continuation of studies. In addition, student permanent records will carry the words “Academic Probation” with the semester of probation.

ACADEMIC DISMISSAL

Matriculated students will be dismissed for failure to earn minimum acceptable cumulative grade point averages:

Less than 1.50 for 6 to 23 credit hours attempted,
Less than 1.75 for 24 to 35 credit hours attempted,
Less than 1.90 for 36 to 47 credit hours attempted, and
Less than 2.00 for 48 credit hours attempted, to end of program, or

students who fail to meet the minimum requirements specified by a particular department for a major but who have minimum acceptable cumulative grade point averages as indicated above will be dismissed from the major, but may apply for admission to a different major.

Students who have withdrawn from the same course more than twice are required to meet with the Academic Dean. If appropriate, the Dean may choose to dismiss the student.

Students may also be dismissed for violations of the Student Code of Conduct.

Dismissed students will receive notification in writing from the Office of Academic Affairs, and the transcript of those students will carry the words "Academic Dismissal," with the semester of dismissal. Dismissal requires students to be un-enrolled for a minimum of one semester. Students may appeal the dismissal decision to the Academic Dean.

ADDRESS AND NAME CHANGE

To ensure that our students receive all correspondence from the College, we request that students notify the Enrollment Center immediately of any change in their name, address, or contact information. To make a name change, the student should provide their original social security card. The Enrollment Center is located in Katahdin Hall. Address changes may also be made online through MyEMCC.

MID-SEMESTER GRADES/ACADEMIC WARNINGS

By the seventh or eighth week of each semester, the Academic Dean may notify in writing those students whose grades are failing or near failing. These students are encouraged to meet with their instructors and/or department chairs to discuss course work improvement and to use the services of the Academic Support Center.

Mid-semester grades become part of a student's permanent records; however, they are not recorded on official academic transcripts.

GRADE REPORTS

Grade reports are not mailed to students. Students are responsible for accessing their course grades online using MyEMCC at www.emcc.edu.

TRANSCRIPT OF ACADEMIC RECORD

The Office of Institutional Research and Student Data maintains the official academic record of each student in perpetuity. Transcripts of these records are not furnished to individuals, other institutions, or prospective employers without the written consent of the student. Each graduate receives one complimentary official transcript with the diploma. Transcripts are $5 per request (up to two copies) and $1 for each additional copy. Expedited transcripts (within a 24-hour turnaround time)

are $10 (prepaid) and faxing any transcripts costs $10 (prepaid cost). These fees are not refundable.

No partial transcripts or copies of transcripts from other institutions (including high schools) are issued. Voice or e-mail requests will not be honored, as a signed Transcript Request Form must be submitted in order to provide a transcript.

Transcript Request Forms are available in the Enrollment Center located in Katahdin Hall, on-line at www.emcc.edu, or a student may mail or fax a signed request to the Office of Institutional Research and Student Data. The fax number is 207/974-4683.

EXPUNGING RECORDS

Only the official academic record maintained by the Office of Institutional Research and Student Data is officially designated as a permanent record. Other records can be expunged at the discretion of a specific department where the record resides. For example, the Student Aid Office expunges records five years after the student's last academic year of attendance. Access rights shall be honored prior to the destruction of records if the student has requested such access.

Departments which maintain educational records may have specific policies regarding access to and retention of such records which are consistent with FERPA. Students seeking information about those specific policies should contact the specific department or office which is the custodian of that record.

TRANSFER OF CREDIT FROM EASTERN MAINE COMMUNITY COLLEGE TO OTHER COLLEGES AND UNIVERSITIES

Because Eastern Maine Community College is accredited by the New England Association of Schools and Colleges, Inc., most academic credits will transfer to other colleges and universities. It is important to note that the receiving institution always reserves the right to determine whether or not credits will transfer. For specific information, the student should contact the institution to which s/he wishes to transfer.

Eastern Maine Community College has articulation agreements with the University of Maine; University of Southern Maine; Husson University; Johnson & Wales University; Maine Maritime Academy; University of Maine at Farmington; University of New England; and the University of Maine at Augusta; St. Joseph's College and other four-year institutions. Articulation agreements facilitate transfer of graduates from Eastern

Maine Community College to the senior institutions and assure that students will be accepted with advanced standing. For specific information regarding transfer of college credits, the student should contact the Associate Dean of Students, Enrollment Center, at Eastern Maine Community College and representatives at the institution to which s/he wishes to transfer.

ATTENDANCE, ABSENCES

Students are expected to be punctual and to attend all scheduled classes, laboratory periods, shop activities, and clinical experiences or field work. Faculty members (1) set specific attendance requirements for their classes, (2) file copies of attendance requirements with the Academic Dean, and (3) communicate those requirements to students during the first class meeting of each course.

Students are responsible for all course requirements, regardless of reason(s) for absences. Make-up of academic requirements occurs at the discretion of faculty members.

Written warnings from instructors indicate they are considering dropping students from courses for non-compliance with written policies. Students may be dropped from courses, and a grade of "AF" will be automatically assigned.

REPEATING COURSES

Repeating Failed Courses—Students may repeat any courses that they have failed. If specific failed courses are required for academic programs, the same courses must be repeated unless students receive written permission from the Academic Dean to take others. Only the last grade earned in a repeated course will be used in computing the cumulative grade point average although grades for all courses taken will appear on the student's transcript.

Repeating Passed Courses—Students may repeat any courses in which they earned passing grades. Students will receive credit only once for each course completed. Even though all courses and grades will appear on transcripts, only grades earned during last attempts will be used to compute cumulative grade point averages.

CREDIT BY EXAMINATION

EMCC offers Challenge Exams to students with specific knowledge for courses which have been approved by the Academic Dean and the Department Chair for the department that specifically offers the course(s).

Permission to take an examination must be obtained from the chair of the department administering the examination. The exams are scheduled at a time and place of the Department Chair's choosing. The exam will be offered by the Department Chair or designate. The Department Chair completes a form for students which designates the name and identification of the course being challenged, the name of the student, and the time and place of the examination. This form is taken to the Business Office by the student where payment is made. The receipt from the Business Office must be shown to the Department Chair before the student is permitted to take the exam.

Students having previously failed or withdrawn from a course are not permitted to obtain credit for that course by examination unless the student can demonstrate to the responsible chair that substantial study has occurred since the student failed the course.

The charge for taking a Challenge Exam is published by the Business Office. This fee will vary by the number of the credits, by any lab components involved in the Challenge Exam, and by the complexity of the exam. If the Challenge Exam is passed, then the recording fee for the course is one-fourth of the normal tuition charge for the course.

Credit for the course will be granted upon successful completion of the required examination, as determined by the course, and will be recorded on the transcript as "Pass, Challenge exam." Credit by examination shall be limited to a maximum number of credit hours such that the combination of transfer credit and credit by examination will not exceed the total percentage of allowable transfer credit listed in the current catalog.

ADD/DROP AND COURSE WITHDRAWAL

Eastern Maine Community College offers courses within various timeframes. As a result, both add/drop and course withdrawal periods differ in length, according to the course in question.

ADD/DROP

For fifteen- and sixteen-week semesters, the Add/Drop Period will be the first 6 calendar days of the semester. For periods shorter than 15 weeks, the Add/Drop Period will be the first 10% of classes. Courses can be added outside this time frame only for exceptional circumstances with the instructor's permission. For summer semesters the Add/Drop Period will be the first 5 days.

During this period, students may change their academic schedules with the approval of the appropriate advisor. A change is considered official only after the Office of Institutional Research and Student Data has received it. Courses dropped from the student schedules during the Add/Drop Period will not appear on transcripts.

COURSE WITHDRAWAL

The Withdrawal Period begins after Add/Drop and ends at the midpoint of the course. Courses dropped during the Withdrawal Period will reflect a "W" on the transcript. After the Withdrawal Period, students who stop attending will receive an "AF" or "F".

Students who withdraw from technology classes during a semester will remain enrolled in their academic program through the end of that semester. If students intend to take classes in the following semester as matriculated students, they must contact the Admissions Office to request an extension of their academic program, or apply for and be accepted to another academic program at the College.

SATISFYING PROGRAM REQUIREMENTS

Students are reminded of their responsibility to monitor their degree program requirements and to plan their schedule of courses accordingly. They should periodically check with their advisor, particularly when changing schedules. **Students have the responsibility for seeing that all graduation requirements are met.**

GRADUATION

Requirements: Eastern Maine Community College will grant associate in applied science degrees, associate in science degrees, associate in arts degrees, advanced certificates, diplomas, and certificates to those students who have

1. passed all prescribed courses required in their program with a minimum cumulative GPA of 2.0,
2. passed all courses within their major area of study with a minimum cumulative GPA of 2.0, and
3. paid all bills.

Application for Graduation: All students are required to complete an Application for Graduation. Generally, students completing their program in a given academic year submit their application in November. Forms may be obtained through the program or in the Academic Affairs Office, Room 101 Maine Hall.

Attendance at Graduation: Students who have fulfilled the requirements for graduation are expected to attend commencement exercises. Graduation documents and official transcripts will be mailed after commencement.

Students who complete their course requirements after the May commencement (for example, after the summer or fall semesters) must notify the Academic Dean to initiate the process for approving their credential.

Awards of Excellence: During each commencement exercise, those students who have excelled both personally and academically within their program receive the Excellence in Technology awards. Usually one student in each technology receives this award. Phi Theta Kappa members and students graduating with honors (cumulative grade point averages of at least 3.25) are also recognized.

Awards of Excellence and other recognitions of achievement require that a student earns 75% of credits from courses taken at EMCC.

Graduating with Honors/High Honors: Graduating students meeting a 75% residency requirement at EMCC will be eligible for the awards of Honors and High Honors if they attain the requisite cumulative GPAs. The Honors award requires a cumulative GPA of 3.25-3.74; the High Honors award requires a cumulative GPA of 3.75-4.00.

CHANGE IN PROGRAM/LEVEL

Change of Level: With the permission of the Director of Admissions, students enrolled in programs offering more than one level of instruction may change from one level to another.

Change of Program: Enrolled students wishing to be considered for a different program of study must apply through the Enrollment Center. Those decisions involve available space, academic preparation, and commitment to the desired program. However, the Change of Program would not take effect until the following semester.

BREAK IN ENROLLMENT

Matriculated students who do not enroll in program-specific courses each consecutive semester until the completion of all program requirements may be withdrawn from their program as a result of the break in attendance. Students who have been withdrawn otherwise in good standing with Eastern Maine Community College are asked to discuss their intent to re-enroll with an Admissions Counselor. Students may be

required to complete an Application for Readmission. Re-entry into certain courses and/or programs will be on a space available basis.

WITHDRAWAL FROM THE COLLEGE

Students who decide to withdraw from Eastern Maine Community College must obtain and complete a "Student Status Change Form" from the Academic Affairs Office. Failure to follow this official withdrawal process may result in failing grades recorded on the student's academic transcript.

Non-attendance of classes is not considered withdrawal and jeopardizes a student's academic record and eligibility for a refund of tuition, refundable fees, or room and board costs. Students who live on campus must follow the check-out procedure identified in the *Residential Life Handbook.*

READMISSION AFTER DISMISSAL OR WITHDRAWAL

Students who withdraw from Eastern Maine Community College while failing one or more courses or who are dismissed for academic reasons, will not be readmitted any sooner than one academic semester from the date of withdrawal/dismissal. Students who are dismissed for academic reasons may appeal their dismissals to the Academic Dean who will then (1) allow the dismissal decision to stand, (2) reverse the decision, or (3) readmit them under specified conditions.

Students dismissed for academic reasons may enroll, with the approval of the Academic Dean, in specific courses in order to remove deficiencies that may have resulted in the dismissal.

LEAVE OF ABSENCE

A matriculated student in good academic standing may apply for and receive a leave of absence (usually no longer than a year) while maintaining status in his or her degree program. If a student is in the first semester of study, the leave request will be reviewed at the end of the semester when grades are available. A student may not request a leave of absence for the semester in which he or she is enrolled.

Re-entry into the technology courses is on a space-available basis. Further information and necessary forms may be obtained in the Academic Dean's office.

STUDENTS CALLED TO ACTIVE MILITARY SERVICE

Eastern Maine Community College recognizes the educational rights of its students who are called to active military duty. Students who (either

voluntarily or involuntarily) enter active military service during time of national or international crisis will be eligible for financial credit for their course work. Students must call or meet with the Academic Dean prior to departure to discuss the reasons for entering active military service and complete the appropriate withdrawal form. Readmission to the student's program is based on space availability.

ACADEMIC HONESTY

Submitting the same work in more than one course without permission from the involved instructors, cheating, plagiarism, or otherwise receiving academic credit under false pretenses, are all serious offenses and may result in dismissal from the College. Instructors may dismiss such offenders from courses with the grade of "AF" and report the cases to appropriate department chairs and the Academic Dean.

APPEALS PROCESS

The academic appeals process consists of the following steps. First, the student meets with the responsible faculty member. If resolution is not reached, the student meets with the department chair of the faculty member's department. The next point of appeal is the Academic Dean, followed by the President. Students should follow this process when concerned with a course grade and related course activities.

For an explanation of rights and responsibilities, students are also referred to the Student Code of Conduct located in the *Student Handbook.*

ACADEMIC SUPPORT CENTER

The Academic Support Center, located in Maine Hall, provides a variety of services designed to help students achieve their academic goals. Many students use these services to improve their basic skills in reading, writing, mathematics and science, while other students find the services offered by the Center helpful in achieving overall excellence. The Center offers small group instruction, individualized instruction, and tutorial services.

Students may take advantage of these services by making arrangements at the Center.

SUPPORT SERVICES FOR STUDENTS WITH DISABILITIES

Students with documented disabilities are encouraged to seek assistance and support at the beginning of the semester from the

Coordinator of Disability Services, who is located in the Academic Support Center in Maine Hall. The support services include providing individual tutoring, arranging for classroom accommodations, advocating for students' rights, and developing individual success plans.

WELDING TEST CENTER

The Welding Test Center is an independent materials testing laboratory that provides mechanical testing for industry. Other services include developing individual company welder qualifications, code and welding consultation services, and welding procedure development. The Center is accredited by the American Welding Society, the Maine Department of Transportation and the Maine Department of Labor - Boiler Division. The Welding Test Center holds membership with: American Society of Mechanical Engineers (ASME), American Society of Nondestructive Materials (ASNT), American Society of Testing Materials (ASTM), American Society of Materials (ASM), Maine Marine Trades Association, and Manufactures' Association of Maine.

EMERGENCY MEDICAL SERVICES DEPARTMENT

The Emergency Medical Services Department offers training that prepares students to recognize and successfully treat illnesses/injuries of patients and to transport patients safely to a hospital. The EMS Department acts as a liaison between pre-hospital providers and hospital personnel.

Academic Advising

ACADEMIC ADVISORS

All matriculated students are assigned a faculty or professional staff advisor or core of advisors who assist students with curricular and scholastic matters and with adjustment to college, and who can refer students to appropriate College personnel for assistance.

PLACEMENT TESTING AND COURSE SELECTION

Eastern Maine Community College requires that students achieve minimum scores on the appropriate computerized placement tests before beginning the "standard" program courses. Identifying areas of skill weaknesses and having the opportunity to develop these skills is essential to successful program completion.

If a student does not achieve minimum scores, s/he will be required to take introductory courses. Pathways for course completion are as follows:

Mathematics:

Business Management, Culinary Arts, & Early Childhood Education:

LAM008→LAM009→MAT117 or MAT 107

Civil Engineering, Computer Systems Technology; Electrical and Automation Technology; & Liberal Studies:

LAM008→LAM009→MAT117→MAT119

Technology Programs:

LAM008→MAT113

Writing:

Degree Programs:

LAE013→ENG105

General Education Courses by Category

Most program requirements include restricted electives. Elective courses by category are:

Humanities	**English** (Writing Intensive Or Communication)	**Mathematics**	**Science**	**Social Science**
Literature ENG112 ENG223 ENG224 ENG225 ENG233 ENG291 *Film* ENG212 ENG214 *Fine Arts* ART *History* HIS *Humanities* HUM *Philosophy* PHI *Language* ASL KOR	ENG101 ENG105 ENG116 ENG162 ENG172 ENG215 ENG221 SPE101 ***ENG105 may be substituted for ENG101***	MAT	BIO CHE CHM NUT PHY	ECO GIS PSY SOC

Any 100-level or higher course with the specified prefix will satisfy the respective general education requirement.
Computer (BCA) and Drafting (DTG) courses are considered related technology courses and do not fall within the general education course distribution.

A brief description of each of the general education course categories is provided:

English/Communications: The study of the skills of discourse—collecting, preparing, and presenting ideas in written and oral form.

Humanities: The study of literature, language, philosophy, and fine arts to analyze values, to stimulate speculation and creativity, and to explore the meaning of human existence.

Mathematics: The study of numbers and their operations, measurement, and relationships, and the use of computational methods in problem solving.

Science: The study of life and physical sciences directed toward the application of the scientific method of inquiry to natural phenomena.

Social Science: The study of psychological, social, historical, and political behavior directed toward an understanding of human continuity and change.

Computer Use Policy for all Users

Purpose: To promote and ensure the responsible use of computers by or through Eastern Maine Community College.

EMCC seeks to enhance opportunities for individual and collaborative learning and research. As a public institution with limited resources and distinct policy and legal obligations, EMCC also needs to ensure that such uses are consistent with those resources and obligations. The goal of this Policy is to balance these interests and promote responsible and secure use for all.

Application:
This policy applies to:

A. each Center and any other entity of EMCC;
B. all computing resources owned or operated by EMCC including, but not limited to, all hardware, software, peripherals, networks, network components, accounts, physical and logical data, e-mail and all other data or information transmitted by such equipment ("computers");
C. all employees, students and other persons who use such computers ("users"); and
D. in addition to any other computer use policy adopted by entities of EMCC, and by entities outside EMCC that operate resources accessed through or from EMCC.

General Rules:

Educational Priority - The priority use of EMCC's computers is to provide direct support for learning, teaching and administration of programs. Such priority will govern access to EMCC's computers.

Use is a Privilege, Not a Right - Users do not have a right to use EMCC computers or accounts thereon. Users are granted a privilege to use such computers and accounts. This privilege is limited by the provisions of this Policy, any other pertinent policy or law, and may be withdrawn for violation thereof.

Limited Right of Privacy. - Users may not have an expectation of privacy in their use of EMCC's computers or networks. For example, EMCC reserves the following rights:

1. Periodic Network Monitoring. EMCC reserves the right to monitor periodically, randomly and without notice use rates, patterns, speed and system capacity to ensure the efficiency or integrity of the EMCC

network and its computers. Such monitoring may proceed only by a person expressly authorized by the College President.

2. Inspection of a Particular Account or Computer. EMCC reserves the right to inspect for reasonable cause those accounts, computers or files that EMCC has reason to believe are misused, corrupt or damaged. Such inspection may proceed only by a person expressly authorized by the College President and as advised by the MCCS General Counsel.

3. Search and Seizure by Law Enforcement Agencies. User accounts, computers or files may also be subject to search and seizure by law enforcement agencies for law enforcement purposes.

Time, Manner and Place Limitations - EMCC reserves the right to limit certain uses on or through EMCC computers at those times and locations that EMCC determines are necessary to regulate system capacity and speed. These limitations apply, but are not limited, to download of video, music, photographic and other large data files.

Examples of Specific Prohibitions
Conduct that violates this Policy includes, but is not limited to, the following:

A. unauthorized access to computers;
B. unauthorized use of a computer account;
C. connecting unauthorized equipment to the EMCC network;
D. unauthorized attempts to circumvent data protection or security including, but not limited to, creating or running programs that identify security loopholes or decrypt secure data;
E. knowingly or recklessly performing an act that will interfere with the regular operation of a computer;
F. knowing or recklessly running or installing a program that, by intent or effect, damages a computer, system or network (this includes, but is not limited to, programs known as computer “viruses”, “Trojan horses” and “worms”.);
G. knowingly or recklessly wasting computer resources;
H. knowingly or recklessly overloading computer resources, such as running excessive programs that use relatively substantial bandwidth and other resources (this includes, but is not limited to, peer-to-peer applications.);
I. violating terms of applicable software licensing agreements;
J. violating copyright laws, including their fair use provisions, through unlawful reproduction or dissemination of copyrighted text, images and other protected materials;
K. using System computers for commercial activity, such as selling products or services;

L. using electronic mail to harass or threaten another person or organization;
M. initiating or perpetuating electronic chain letters or unauthorized mass mailings (this includes, but is not limited to: multiple mailings to news groups, mailing lists or individuals; "spamming;" "flooding;" and "bombing".);
N. forging the identity of a person or computer in an electronic communication;
O. transmitting or reproducing materials that is libelous, slanderous or defamatory;
P. displaying, downloading, printing or distributing obscene, lewd, sexually explicit or sexually offensive images or text in a manner that constitutes sexual harassment or other violation of law;
Q. unauthorized monitoring of another user's electronic communications; or reading, copying, changing or deleting another user's files or software without authority; and
R. otherwise violating existing laws or EMCC policies.

Enforcement – Violation of this Policy may result in the loss of computing and/or network access; other disciplinary action; or appropriate civil or criminal legal action.

Security – The EMCC Dean of Information Technology shall work with the MCCS Director of Finance and Administration to develop and adopt standards that provide adequate uniform security for all System computers and networks.

Corporate and Professional Services

As a dynamic community leader, the Bangor Business and Industry Center creates innovative partnerships responsive to the education and training needs of our community.

CUSTOMIZED TECHNICAL COURSES

Technical short-term and long-term courses can be designed which award continuing education units or college credits depending on the goals and requirements of the organization. Most of these workforce development programs lead to certification or licensing and can be offered at Eastern Maine Community College facilities or the business site.

CORPORATE-SPECIFIC PROGRAMS

Certificate and degree programs can be designed to meet the unique needs of specific organizations. Most programs are offered part-time in a flexible format.

MAINE QUALITY CENTERS

Through an economic development initiative, this pre-employment training program provides new or expanding businesses with fast-track education and training before hiring at no charge to the business or to the trainees. This program recruits trainees and provides customized training, either non-credit or credit, designed to meet specific skills identified by the employer.

ACADEMIC PROGRAMS

Common Learning Objectives

All graduates of associate degree programs at Eastern Maine Community College will improve their initial skills in the following common learning objectives:

COMMUNICATION

Graduates effectively convey ideas to others using graphics, speech and writing.

TEAM WORK

Graduates work effectively in teams with individuals from diverse backgrounds.

INDEPENDENT LEARNING

Graduates access, evaluate, and synthesize information independently using appropriate technology.

PROBLEM SOLVING

Graduates can interpret manuals and reports, use mathematical skills, scientific methods, and logic to identify and solve problems appropriate to the discipline of study.

Automotive Technology

Credentials:

Associate in Applied Science Degree (65-65.5 credit hours)
One-Year Certificate (33-34.5 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required. Algebra II, Geometry, Physics or Chemistry with Lab desired.
One-Year Certificate: Algebra I required.

Program Overview:

The Automotive Technology provides theoretical foundations, practical education, and work experience in the engineering, testing, servicing, troubleshooting and repairing of automobiles. The program is ASE Certified, which ensures students that course content is pertinent to the needs of industry. Recent graduates are employed as automotive service technicians, sales personnel, service managers, maintenance supervisors, service writers, warranty claims adjusters, and parts persons.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Note: For related program, see "Diesel, Truck and Heavy Equipment" section of this catalog.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree will function at an entry-level position for servicing, diagnosing, repairing, and creating work orders in the following areas:

- Car and light truck hydraulic and anti-lock braking systems
- Standard/automatic transmissions and final drives
- Gas and light-duty diesel engines
- Gas fuel systems (electronic and mechanical fuel injection systems)
- Suspension systems
- Electrical and electronic systems
- Emissions control systems
- Heating and air conditioning systems

Graduates will demonstrate proper public relations and customer service techniques for a fleet or dealer service facility.

Graduates will demonstrate understanding and application of legal requirements including those of OSHA, EPA, and State of Maine regulations regarding the handling and disposal of hazardous materials and related safety issues.

The Automotive Program is ASE certified in eight areas and the curriculum follows ASE standards, which helps students to prepare for ASE technician certification tests.

Students are tested with standard written tests as well as hands-on testing that coincide with the assigned textbook, ASE standards, as well as industry standards in each area. Students must pass with a "C" or better to pass the module.

Automotive Service Excellence (ASE) Profile

Until the early 1970's, consumers had no way to distinguish between incompetent and competent mechanics. In response to this need, the independent, non-profit National Institute for Automotive Service Excellence (ASE) was established in 1972. ASE's mission is to improve the quality of vehicle repair and service through the testing and certification of repair and service professionals. At present there are about 438,000 professionals with current certifications. They work in every segment of the automotive service industry: car and truck dealerships, independent garages, fleets, service stations, franchises, and more.

Automotive Technology—A.A.S. Degree			
First Semester		**Automotive Courses**	**Credits**
	ATA101	Automotive Shop Orientation and Safety I	1
	ATA111	Automotive Braking Systems	2
	ATA161	Automotive Steering and Suspension	3
	ATT133	Basic Electrical Systems	3
	ATT135	Advanced Electrical Systems	2
		General Education Courses	**Credits**
	ENG101 or ENG105	College Composition *or* College Composition with Lab	3 or 3.5
	MAT113	Technical Mathematics I	3
Second Semester		**Automotive Courses**	**Credits**
	ATA105	Automotive Minor Repairs	2
	ATA122	Manual Transmissions and Transaxles	3
	ATA123	Automatic Transmissions and Transaxles	4
	ATA171	Failure Analysis and Vehicle Inspection	2
		General Education Courses	**Credits**
	Restricted Elective	Social Science, Humanities, Communications Elective (100 level or higher)	3
	MAT114	Technical Mathematics II	3
Third Semester		**Automotive Courses**	**Credits**
	ATA131	Engines (Gas and Light Duty Diesel)	4
	ATA201	Automotive Shop Orientation and Safety II	1
	ATA211	Automotive Shop Management	2
	ATT141	Heating and Air Conditioning	3
	WEL265	Gas Metal Arc Welding Basic	1
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	CHE100 or PHY108	Chemistry for Everyday Living *or* Survey of Applied Physics	4
Fourth Semester		**Automotive Courses**	**Credits**
	ATA136	Engine Performance and Diagnosis	2
	ATA141	Automotive Fuel Systems	3
	ATA186	Drivability and Emission Control Systems	3
	ATA251	Automotive Basic Machine Shop Principles	2
		General Education Course	**Credits**
	SPE101	Oral Communication	3
		TOTAL A.A.S. DEGREE CREDITS	**65-65.5**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Automotive Certificate in Basic Systems			
First Semester		**Courses**	**Credits**
	ATA101	Shop Orientation and Safety I	1
	ATA111	Automotive Braking Systems	2
	ATA161	Automotive Steering and Suspension	3
	ATT133	Basic Electrical Systems	3
	ATT135	Advanced Electrical Systems	2
	ENG101 or ENG105	College Composition College Composition with Lab	3 or 3.5
	MAT113	Technical Mathematics I	3
Second Semester		**Courses**	**Credits**
	ATA105	Automotive Minor Repairs	2
	ATA122	Manual Transmissions and Transaxles	3
	ATA123	Automatic Transmissions and Transaxles	4
	ATA171	Failure Analysis and Vehicle Inspection	2
	MAT114	Technical Mathematics II	3
	Restricted Elective+	Communications, Humanities, or Social Science (100 level or higher)	3
		TOTAL ONE-YEAR CERTIFICATE CREDITS	**34-34.5**

+Restricted Elective: Refer to the General Education Courses table on page 59

Building Construction Technology

Credentials:

Associate in Science Degree (66-69.5 credit hours)
Associate in Applied Science Degree (62-65.5 credit hours)
One-Year Certificate (32-32.5 credit hours)

Academic Requirements for Admission:

A.S. Degree: Algebra I, Algebra II, Geometry, Physics or Chemistry with Lab required.
A.A.S. Degree: Algebra I required. Algebra II, Geometry, Physics or Chemistry with Lab desired.
One-Year Certificate: Algebra I required.

Program Overview:

Associate in Science Degree: This program is designed for students who are planning for mid-management positions within the construction industry or who will transfer credits to another college. This program encompasses studies in residential, commercial and industrial construction. Building science, construction estimating and scheduling, building codes, quality control and safety are integral components of this program. Students learn skills in blueprint reading, computer aided drafting and design, construction layout, and carpentry skills. Students apply these skills by performing field layout projects, constructing a residential building, and designing, placing and finishing concrete.

Associate in Applied Science Degree: This program is designed for students who are planning for leadership positions within the construction industry. This program encompasses studies in cabinetmaking and millwork, residential, commercial and industrial construction. Building science, construction estimating and scheduling, building codes, quality control and safety are integral components of this program. Students learn blueprint reading, computer aided drafting and design, construction layout, and carpentry skills. Students apply these skills by performing field layout projects, constructing a residential building, manufacturing and installing cabinetry and designing, placing and finishing concrete.

One-year Certificate: This program is designed to prepare students for entry-level positions as a carpenter in the residential building field. Students who complete the Certificate will earn NCCER* Certification at Carpentry Level I and part of Level III. This program

focuses on residential construction. Students study blueprint reading, drafting, safety and residential construction practices and apply these studies by building a residential building.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Key Learning Objectives:

Graduates with the Associate in Science Degree or the Associate in Applied Science Degree in the Building Construction program will function at an entry-level position in the construction industry, but with the skill set necessary for later promotion into a mid-management level position. Skills will include:

- Blue-print reading and drafting
- Planning construction projects and reviewing for code compliance
- Estimating of costs and time for construction projects
- Layout of building projects using transits and levels
- Inspecting work for quality assurance
- Explaining the integration of building components as a system
- Performing energy audits
- Earning NCCER* certifications in Carpentry Level I, II and portions of Level III

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*National Center for Construction Education and Research (NCCER) is a nationwide standardized curriculum and testing organization. NCCER completion credits are recognized by construction firms all over the country.

Building Construction Technology—A.S. Degree			
First Semester		**Building Construction Course**	**Credits**
	BCT151	Residential Construction I	7
		General Education Courses	**Credits**
	DTG121	Architectural Drafting I	3
	ENG101 or ENG105	College Composition or College Composition with Lab	3 or 3.5
	MAT113	Technical Mathematics I	3
Second Semester		**Building Construction Course**	**Credits**
	BCT152	Residential Construction II	7
		General Education Courses	**Credits**
	DTG124	Architectural Drafting II	3
	MAT114	Technical Mathematics II	3
	PSY211	Human Relations	3
	SPE101	Oral Communication	3
Summer			**Credits**
	BCT201 Elective	Cooperative Education for Building Construction Technology (pending final approval)	3
Third Semester		**Building Construction Courses**	**Credits**
	BCT213	Stair Construction	1
	BCT255	Commercial and Industrial Construction	4
	BCT264	Construction Estimating	3
		General Education Courses	**Credits**
	DTG223	Architectural Drafting III	3
	ENG215	Business and Technical Writing	3
	PHY121	Physics I	3
	PHY122	Physics I Laboratory	1
Fourth Semester		**Building Construction Course**	**Credits**
	BCT275	Building Science	4
		General Education Courses	**Credits**
	Restricted Elective+	Science (100 level or higher)	3
	Restricted Elective+	Communications, Humanities, or Social Science (100 level or higher)	3
	Restricted Elective+	Communications, Humanities, or Social Science (100 level or higher)	3
		TOTAL A.S. DEGREE CREDITS	**66-69.5**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Building Construction Technology—A.A.S. Degree			
First Semester		**Building Construction Course**	**Credits**
	BCT151	Residential Construction I	7
		General Education Courses	**Credits**
	DTG121	Architectural Drafting I	3
	ENG101 or ENG105	College Composition *or* College Composition with Lab	3 or 3.5
	MAT113	Technical Mathematics I	3
Second Semester		**Building Construction Course**	**Credits**
	BCT152	Residential Construction II	7
		General Education Courses	**Credits**
	DTG124	Architectural Drafting II	3
	MAT114	Technical Mathematics II	3
	SPE101	Oral Communication	3
Summer			**Credits**
	BCT201 Elective	Cooperative Education for Building Construction Technology (pending final approval)	3
Third Semester		**Building Construction Courses**	**Credits**
	BCT213	Stair Construction	1
	BCT255	Commercial and Industrial Construction	4
	BCT264	Construction Estimating	3
		General Education Courses	**Credits**
	DTG223	Architectural Drafting III	3
	PHY108	Survey of Applied Physics	4
Fourth Semester		**Building Construction Courses**	**Credits**
	BCT272	Cabinetmaking and Millwork	5
	BCT275	Building Science	4
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	Restricted Elective+	Communications, Humanities, or Social Science (100 level or higher)	3
		TOTAL A.A.S. DEGREE CREDITS	**62-65.5**

jmn+**Restricted Elective**: Refer to the General Education Courses table on page 59

Building Construction Technology—One-Year Certificate			
First Semester		**Building Construction Course**	**Credits**
	BCT151	Residential Construction I	7
		General Education Courses	**Credits**
	DTG121	Architectural Drafting I	3
	HIS101	American History Since 1898	3
	MAT113	Technical Mathematics I	3
Second Semester		**Building Construction Course**	**Credits**
	BCT152	Residential Construction II	7
		General Education Courses	**Credits**
	DTG124	Architectural Drafting II	3
	ENG101 or ENG105	College Composition *or* College Composition with Lab	3 or 3.5
	MAT114	Technical Mathematics II	3
		TOTAL ONE-YEAR CERTIFICATE CREDITS	**32-32.5**

Business Management

Credential:

Associate in Applied Science Degree (60-62 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I, English Composition required.

Program Overview:

The Business Management program provides a sound foundation of principles designed to prepare students for the business world. Courses offer practical, marketable skills while developing an understanding of business theory.

Graduates are qualified for entry-level management employment in banking, retailing, federal and state government, sales, insurance, and marketing.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in the Business Management program will function at an entry level position in management, office administration, retail sales, banking operations, and/or restaurant management positions, depending on which concentration they choose. Among the specific learning objectives are:

- Proficiency in Microsoft and other business related software.
- Mastery of fundamental principles and procedures of accounting.
- Mastery of key business law concepts such as contracts, unenforceable aspects of contracts, rights of third parties, judicial procedure, and torts.
- Managing principles for entry-level and mid-management positions.
- Preparation to transfer to four-year colleges with junior status.

Business Management—A.A.S. Degree			
First Semester		**Business Management Courses**	**Credits**
	BCA113	Computer Applications I	3
	BUA101	Introduction to Business	3
	BUA105	Business Communications	3
	BUA111	Accounting I	3
		General Education Course	**Credits**
	ENG101	College Composition (may substitute ENG105)	3
Second Semester		**Business Management Courses**	**Credits**
	BUA112	Accounting II	3
	BUA131	Business Law I	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
		General Education Courses	**Credits**
	Math Requirement	MAT117 Intermediate Algebra *or* MAT119 College Algebra	3
Third Semester		**Business Management Courses**	**Credits**
	BUA234	Credit and Finance Management	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
		General Education Courses	**Credits**
	Restricted Elective	PSY101 Introduction to Psychology *or* PSY211 Human Relations	3
	Restricted Elective	English/Communications Elective (100 level or higher)	3
	Restricted Elective	Math or Science (100 level or higher)	3-4
Fourth Semester		**Business Management Courses**	**Credits**
	BUA271	Marketing Principles	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
		General Education Courses	**Credits**
	Restricted Elective	ECO221 Introduction to Microeconomics *or* ECO222 Introduction to Macroeconomics *or* PHI101 Ethics	3
	Restricted Elective+	Arts/Humanities/Social Science (100 level or higher)	3-4
		TOTAL A.A.S. DEGREE CREDITS	**60-61**

Business Management Elective Options: BCA114 Computer Applications II; BCA202 Integrated Software Applications; BMT111 Introduction to Medical Terminology; BUA132 Business Law II; BUA 241 Introduction to Small Business Management; BUA263 Sales and Customer Relations; BUA265 Leadership; BUA291 Principles of Management and Organization. Other business courses may be considered on an individual basis.

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Business Management
Health Care Secretary

Credential:

Certificate (31 credit hours)

Academic Requirements for Admission:

Certificate: Algebra I and English Composition required.

Program Overview:

This one-year program will prepare graduates to perform clerical and administrative duties in a medical office and in a hospital setting. Duties may include routine typing, operation of computer software, preparing and maintaining medical records, scheduling appointments, and related tasks. Graduates from this program will have the necessary skills to work in a variety of settings, including medical clinics, doctors' offices, and hospitals.

Business Management/ Health Care Secretary—Certificate			
First Semester		**Courses**	**Credits**
	BCA113	Computer Applications I	3
	BMT111	Introduction to Medical Terminology I	3
	BMT261	Health Unit Coordinator	3
	BUA105	Business Communications	3
	ENG101	College Composition (may substitute ENG105)	3
Second Semester		**Courses**	**Credits**
	BMT112	Medical Terminology II	3
	BMT121	Medical Law and Ethics	3
	BMT202	Medical Office Procedures	3
	BIO115	Human Biology	4
	Restricted Elective	MAT117 Intermediate Algebra *or* MAT119 College Algebra	3
		TOTAL CERTIFICATE CREDITS	**31**

Business Management
Office Technology

Credential:

Certificate (30 credit hours)

Academic Requirements for Admission:

Certificate: Algebra I and English Composition required.

Program Overview:

This one-year program will prepare graduates to perform clerical and administrative duties in an office setting. Graduates from this program will have the necessary skills to work in a variety of office settings.

Office Technology—Certificate			
First Semester		**Courses**	**Credits**
	BCA113	Computer Applications I	3
	BUA105	Business Communications	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Elective	PSY101 Introduction to Psychology *or* PSY211 Human Relations	3
Second Semester		**Courses**	**Credits**
	BCA114	Computer Applications II	3
	BCA202	Integrated Software Applications	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
	Restricted Elective	Business Management Elective (100 level or higher)	3
	Restricted Elective	MAT117 Intermediate Algebra *or* MAT119 College Algebra	3
		TOTAL CERTIFICATE CREDITS	**30**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Business Management – Small Business Development

Credential:

Certificate (30 credit hours)

Academic Requirements for Admission:

Certificate: Algebra I, Keyboarding, and English Composition required.

Program Overview:

The Certificate in Small Business Development is intended to help those individuals wanting to start a business or to help their current business become more successful.

Students enrolled in this program may also be Associate Degree students in Business Management. Most graduates of the Certificate program will be technical students adding courses to their existing programs.

Business Management – Small Business Development—Certificate			
First Semester		**Business Management Courses**	**Credits**
	BUA111	Accounting I	3
	Restricted Elective+	Business elective*	3
	BUA263	Sales and Customer Relations	3
		General Education Courses	**Credits**
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Elective+	Humanities (100 level) PHI101 Ethics recommended	3
Second Semester		**Business Management Courses**	**Credits**
	BUA 241	Introduction to Small Business Development *Or* BUS 101 Intro to Small Business *and* BUS 201 Business Plan Development and Composition	3
	BUA132	Business Law II	3
	Restricted Elective+	Business elective*	3
	BUA271	Marketing Principles	3
		General Education Course	**Credits**
	PSY211	Human Relations	3
		TOTAL CERTIFICATE CREDITS	**30**

+**Restricted Elective**: Any BUA course not in the program

* Pending approval

Civil Engineering Technology

Credential:

Associate in Science Degree (62-65 credit hours)

Academic Requirements for Admission:

A.S. Degree: Algebra I, Algebra II, Geometry and Physics required. Trigonometry desired.

Program Overview:

Civil Engineering Technology prepares students for employment as civil engineering technicians who will assist in the planning, design, and construction of buildings, highways and heavy construction.

From mid-May to early October, following the end of the second semester, students will participate in a mandatory co-op program in which the students will work in a full-time paid construction job. The combination of academic study and co-op experience will give greater meaning to the student's academic program and direction for the student's career development. Students will graduate with a half-year of real-world, on-the-job experience already on their resume.

Key Learning Objectives:

Graduates with the Associate in Science Degree in Civil Engineering Technology will function at an entry-level position as a civil engineering technician with the following skills:

- Analyze and solve solutions of force systems for beams, trusses, and frames under static loading.
- Evaluate material performance under applied loads for engineering applications for concrete, metals, plastics, and wood, and taking into account building code requirements for loads including dead, live, snow, wind, and earthquake.
- Construct probability density functions from test data and compute probabilities of failure.
- Use surveying procedures in construction and to calculate volume, stakeout, and grade.
- Layout site mapping, profile, and cross-sections.
- Use computer aided drafting and design software to draft plans and to analyze and design various civil engineering projects.

Civil Engineering Technology—A.S. Degree			
First Semester		**Civil Engineering Courses**	**Credits**
	CET100	Introduction to Civil Engineering	1
	CET110	Materials	3
	CET111	Materials Lab	1
		General Education Courses	
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Elective	MAT119 College Algebra$_1$ *or* MAT123 College Algebra and Trigonometry$_2$	3 or 4
	PHY121	Physics I	3
	PHY122	Physics I Laboratory	1
Second Semester		**Civil Engineering Courses**	**Credits**
	CET101	Plane Surveying	3
	CET121	Civil CADD	3
	CET214	Soils Mechanics	4
		General Education Courses	
	Restricted Elective	MAT120 College Trigonometry$_1$ (119→120) *or* MAT217 Pre-Calculus$_2$ (123→217)	3
	PHY123	Physics II	3
	PHY124	Physics II Laboratory	1
Summer Semester		**Civil Engineering Course**	**Credits**
	CET201	Cooperative Education for Civil Engineering Technology (or CET221)	3
Third Semester		**Civil Engineering Courses**	**Credits**
	CET124	Construction Estimating	3
	CET211	Statics and Strength of Materials	4
		General Education Courses	
	Restricted Elective	MAT161 Introduction to Statistics *and* MAT217 Pre-Calculus$_1$ (120/123→217) *or* MAT225 Calculus I$_2$ (217→225)	6 or 4
	Restricted Elective+	Social Science or Humanities (100 level or higher)	3
Fourth Semester		**Civil Engineering Courses**	**Credits**
	CET202	Construction Surveying	3
	CET212	Structural Design	4
	CET221	3D Civil CADD (or CET201)	3
		General Education Courses	
	ENG215	Business and Technical Writing	3
	SPE101	Oral Communication	3
		TOTAL A.S. DEGREE CREDITS	**64$_1$ or 63$_2$**

+**Restricted Elective**: Refer to the General Education Courses table on page 59
1: Math track option 1
2: Math track option 2

Computer Aided Drafting and Design

Credentials:

Associate in Science Degree (61-63 credit hours)
Certificate (30 credit hours)

Academic Requirements for Admission:

A.S. Degree: Algebra I, Algebra II, and Geometry required. Certificate: Algebra I required. Algebra II and Geometry desired.

Program Overview:

Computer Aided Drafting and Design (CADD) is a rapidly emerging technological area that consists of many disciplines, different software, and constant learning cycles. This program provides the student with a background in the fundamentals of drafting along with preparation to develop state-of-the-art skills in CADD technology. The curriculum covers the principles, methods, and techniques of CADD in various disciplines. These disciplines will include: mechanical, architectural, civil, 3D, presentation graphics, and other smaller disciplines. Graduates typically find employment with fabricators, architects, engineering firms, mapping companies, construction companies, service bureaus, and other specialty shops.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Key Learning Objectives:

Graduates with the Associate in Science Degree in Computer Aided Drafting and Design will have a background in the fundamentals of drafting along with state-of-the-art skills in CADD technology. The students will be exposed to all the different major drafting areas. These areas include Architectural, Civil, Mechanical, Structural, Electrical, Plan Graphics and 3D. Upon graduation students will function at an entry-level position in architectural firms, engineering firms, mapping companies, and construction companies with the following skills:

- Have satisfactory drafting skills using manual and computer assisted means.
- Do board sketching, field sketching, orthographic projection, auxiliary, and sectional views for engineering, construction, and manufacturing processes.
- Will show proficiency in 2D CADD from basic to advanced skills.
- Will show proficiency in Industry leading CAD related software to

include, AutoCAD, AutoCAD Architecture, Revit, Inventor, 3DS MAX, and Photoshop.

- Will use 3D techniques and operations using AutoCAD, 3DS MAX, and Revit. This includes wireframes, surfaces, solid models, full 3D design, shading, and photo-realistic imaging.
- Will use Photoshop in conjunction with other learned software to create visual images used in presentations, documents, and web related imagery.
- While working in a simulated office environment students will solve problems individually, will work in a team or group environment and will work with clients.
- Students will produce industry acceptable output in a variety of sizes and mediums. The students' best work will be showcased in a portfolio in an interview-ready state.

Computer Aided Drafting and Design—A.S. Degree **Computer Aided Drafting and Design—Certificate***			
First Semester		**Computer Aided Drafting & Design Courses**	**Credits**
	CAD101*	Introduction to CADD	3
	CAD111*	Engineering Drawing and Design	3
	CAD128*	Residential/Commercial Construction Theory	3
		General Education Courses	
	ENG101*	College Composition (may substitute ENG105)	3
	MAT113*	Technical Mathematics I	3
Second Semester		**Computer Aided Drafting & Design Courses**	**Credits**
	CAD102*	Intermediate CADD	3
	CAD115*	Architecture Drawing and Design	3
		General Education Courses	**Credits**
	ENG215*	Business and Technical Writing	3
	MAT114*	Technical Mathematics II	3
	PSY211*	Human Relations	3
Third Semester		**Computer Aided Drafting & Design Courses**	**Credits**
	CAD130	Mechanical Modeling and Design	3
	CAD203	3D CADD	3
	CAD222	Building Information Modeling	3
		General Education Courses	**Credits**
	Restricted Elective	MAT119 or higher *or* PHY121 Physics I (3) *and* PHY122 Physics I Laboratory (1)	3-4
	SPE101	Oral Communication	3
Fourth Semester		**Computer Aided Drafting & Design Courses**	**Credits**
	CAD229	Career Experience Lab	4
	CAD234	Visualization for Architecture, Engineering and Construction (AEC)	3
		General Education Courses	**Credits**
	Restricted Elective	MAT119 or higher *or* PHY123 Physics II (3) *and* PHY124 Physics II Laboratory (1)	3-4
	Restricted Elective+	Humanities or Social Science (100 level or higher)	3
	Restricted Elective+	Communications, Humanities, Mathematics, Science or Social Science (100 level or higher)	3
		TOTAL A.S. DEGREE CREDITS	**61-63**
		TOTAL CERTIFICATE CREDITS	**30**

***Computer Aided Drafting and Design Certificate Requirements**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Computer Repair Technology

Credential:

One-Year Certificate (33 credit hours)

Academic Requirements for Admission:

One-Year Certificate: Algebra I required. Algebra II desired.

Program Overview:

The one-year Certificate program in Computer Repair Technology (CRT) prepares the successful student for an entry-level position in the field of computer repair. Students are provided with a solid foundation in personal computer hardware, operating systems, and data communications through theory classes and hands-on experiences in the laboratory.

Certificate program graduates find work in a variety of organizations that are in need of maintenance and repair of computers. This includes positions such as: computer systems technician, computer technician, and computer maintenance technician.

Mathematics and communications courses provide students the power to relate their understanding of computer systems to other professionals and to computer owners in need of repair services.

The Computer Repair Certificate may be used as a pathway for students who may later want to enter an Associate of Applied Science degree program in Computer Systems Technology.

Computer Repair Technology—One-Year Certificate			
First Semester		**Computer Repair Technology Courses**	**Credits**
	CST101	Introduction to College Learning	1
	CST107	Introduction to Computer Technology	2
	CST117	Web Page Design for Computer Technicians	2
	CST131	PC Hardware	3
		General Education Courses	
	ENG101	College Composition (may substitute ENG105)	3
	Math Requirement	MAT113 Technical Mathematics I *or* MAT119 College Algebra	3
Second Semester		**Computer Repair Technology Courses**	**Credits**
	CST116	Telecommunications	4
	CST124	An Introduction to Linux	3
	CST126	Programming with Visual Basic.NET	3
		General Education Courses	**Credits**
	BCA113	Computer Applications I	3
	Math Requirement	MAT114 Technical Mathematics II *or* MAT120 College Trigonometry	3
	Restricted Elective	SPE101 Oral Communication *or* ENG215 Business and Technical Writing *or* PSY211 Human Relations	3
		TOTAL ONE-YEAR CERTIFICATE CREDITS	**33**

MAT119 and MAT120 are recommended for those students who anticipate pursuing an associate degree in Computer Systems Technology. All 33 credits could then transfer to the degree program.

Computer Systems Technology

Credential:

Associate in Applied Science Degree (60 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I and Algebra II required.

Program Overview:

Computer Systems Technology is a two-year Associate in Applied Science Degree program designed to educate the student in the areas of personal computer hardware and software; data communications; and computer network hardware, software, and management. Students receive a solid foundation in the functional components and operating systems of modern computers, and gain experience in configuring, maintaining and upgrading a variety of systems.

Communications between computers has become important in today's world and the curriculum presents the fundamental concepts necessary to understand these systems. Laboratory work with peer-to-peer and client/server networks, local- and wide-area networks (LANs and WANs), and midrange/mainframe multi-user systems allows the student to apply knowledge gained in the classroom.

Graduates are prepared to assume a variety of positions such as: computer systems technician, computer technician, computer maintenance technician, computer network installer, computer network technician, network administrator, telecommunications technician, and help desk service provider.

The technical program is supplemented by courses designed to assist the networking technician in advancing his or her career. Courses are provided in mathematics, physics, written and oral communications, and the humanities.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in the Computer Systems Technology program should be able to:

- Install, configure, troubleshoot, maintain, and upgrade personal computer systems hardware and software.
- Effectively design and manage networks and efficiently operate them.
- Use effective troubleshooting strategies and techniques in correcting a variety of computer system hardware and software problems.
- Install, configure, navigate, and manage modern client and server network operating systems.
- Design and build effective web sites.
- Define and describe the physical factors that affect data communications media.
- Select the most feasible alternative voice and data communications technologies for specific business applications from the various technologies available.
- Interact appropriately with customers, co-workers, and the general public in a service oriented-industry.
- Develop and deliver training for system users.

Computer Systems Technology—A.A.S. Degree			
First Semester		**Computer Systems Technology Courses**	**Credits**
	CST101	Introduction to College Learning	1
	CST107	Introduction to Computer Technology	2
	CST117	Web Page Design for Computer Technicians	2
	CST131	PC Hardware and Operating Systems	3
		General Education Courses	
	ENG101	College Composition (may substitute ENG105)	3
	MAT119	College Algebra	3
Second Semester		**Computer Systems Technology Courses**	**Credits**
	CST116	Telecommunications	4
	CST124	An Introduction to Linux	3
	CST126	Programming with Visual Basic.NET	3
		General Education Courses	**Credits**
	BCA113	Computer Applications I	3
	MAT120	College Trigonometry	3
Third Semester		**Computer Systems Technology Courses**	**Credits**
	CST211	Network Architecture I	3
	CST212	Network Architecture II	3
	CST221	Network Security	3
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	PSY211	Human Relations	3
Fourth Semester		**Computer Systems Technology Courses**	**Credits**
	CST224	Wireless Networking	2
	CST232	Server Operating Systems	3
	CST244	Introduction to Computer Forensics and Investigations	3
		General Education Courses	**Credits**
	PHY108	Survey of Applied Physics	4
	SPE101	Oral Communication	3
		TOTAL A.A.S DEGREE CREDITS	**60**

Culinary Arts

Credentials:

Associate in Applied Science Degree (62 credit hours)
One-Year Certificate (30 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I, Algebra II and a lab science required.
One-Year Certificate: Algebra I required.

Program Overview:

Culinary Arts provides students with a background which is complete and versatile. Graduates are hired as chefs, kitchen managers, catering directors, and restaurant managers.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Culinary Arts will be able to perform at both entry-level and mid-level positions in the areas of basic professional cooking and baking, as well as front of the house and supervisory responsibilities within the following areas:

- Line cooking including sauté, broiler/grill, fry and expedition work.
- Pre-preparation and preparation work in the categories of Garde Manger and Hot Foods; Saucier, Entremetier, and Tournant.
- Menu planning and execution.
- Food costing, purchasing and distribution.
- Reservation systems and all phases of dining room position execution.
- Preparation of glutenous products, simple desserts and advanced dessert selections.
- Sanitation.
- Basic nutrition and modified diet menu items.

Graduates will be certified in the areas of Foodservice Sanitation through the Educational Foundation under the auspices of the National Restaurant Association and Food and Beverage Management through the Educational Institute of the American Hotel and Motel Association Educational Institute.

Articulation for A.A.S. graduates to enter with junior status in selected programs includes the following colleges and universities: Husson University, Johnson and Wales University, Thomas College, and the University of Southern Maine.

Culinary Arts—A.A.S. Degree Food Service Specialist—One-Year Certificate*			
First Semester		**Culinary Arts Courses**	**Credits**
	CUL112*	Culinary Skills Development	3
	CUL124*	Culinary Arts I	6
	CUL131*	Servsafe Sanitation	3
		General Education Courses	**Credits**
	ENG101*	College Composition (may substitute ENG105)	3
Second Semester		**Culinary Arts Courses**	**Credits**
	CUL125*	Culinary Arts II	6
	CUL141*	Food Service Management	3
		General Education Courses	**Credits**
	Restricted Elective*	Math or Science (100 level or higher)	3
	SPE101*	Oral Communication	3
Summer			
	CUL215	Culinary Externship	3
Third Semester		**Culinary Arts Courses**	**Credits**
	CUL218	Classical European Pastry Arts	3
	CUL262	Classical French Cuisine	5
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	Restricted Elective	Math or Science (100 level or higher)	3
	By permission	*CUL230 Regional Italian Cuisine (by permission only) – not required*	*3*
Fourth Semester		**Culinary Arts Courses**	**Credits**
	CUL214	Advanced Culinary Skills	3
	CUL264	International Cuisine	5
		General Education Courses	**Credits**
	NUT221	Nutrition	4
	Restricted Elective	Humanities/Social Science (100 level or higher) HIS106 – Food in History (recommended)	3
		TOTAL A.A.S. DEGREE CREDITS	**62**
		TOTAL CERTIFICATE CREDITS	**30**

*Food Service Specialist One-Year Certificate Requirements.

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Diesel, Truck and Heavy Equipment Technology

Credentials:

Associate in Applied Science Degree (66-66.5 credit hours)
One-Year Certificate (31-32.5 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required. Algebra II, Geometry, Physics or Chemistry with Lab desired.
One-Year Certificate: Algebra I required.

Program Overview:

The Diesel, Truck and Heavy Equipment Technology program provides theoretical foundations, practical education, and work experience in the engineering, testing, servicing, troubleshooting and repairing of trucks, diesel engines and heavy equipment. The program is ASE Certified, which insures students that course content is pertinent to the needs of industry. Recent graduates are employed as heavy equipment service technicians, sales personnel, service managers, maintenance supervisors, service writers, warranty claims adjusters, and parts persons.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Note: For related program, see "Automotive" section of this catalog.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Diesel, Truck and Heavy Equipment will function at an entry-level position for servicing, diagnosing, repairing and creating work orders in the following areas:

- Truck hydraulic and air braking systems as they pertain to heavy-duty trucks and heavy equipment
- Standard/automatic transmissions and final drives
- Diesel and heavy-duty gas engines
- Electronic and mechanical fuel injection systems
- Suspension systems
- Electrical and electronic systems
- Hydraulic systems

- Air conditioning systems

Graduates will demonstrate proper public relations and customer service techniques for a fleet or dealer service facility.

Graduates will demonstrate understanding and application of legal requirements including those of OSHA, EPA, and State of Maine regulations regarding the handling and disposal of hazardous materials and related safety issues.

The Diesel, Truck and Heavy Equipment program is ASE certified in eight areas and the curriculum follows ASE standards, which helps students to prepare for the ASE technician certifications test.

Students are tested with standard written tests as well as hands-on testing that coincide with the assigned textbook, ASE standards, as well as industry standards in each area. Students must pass with a "C" or better to pass the module.

Diesel, Truck and Heavy Equipment—A.A.S. Degree			
First Semester		**Diesel, Truck & Heavy Equipment Courses**	**Credits**
	ATH101	Shop Orientation and Safety I: Heavy Equipment/Truck I	1
	ATH113	Heavy Equipment/Truck Braking Systems	3
	ATH163	Heavy Equipment/Truck Steering and Suspension Systems	3
	ATT133	Basic Electrical Systems	3
	ATT135	Advanced Electrical Systems	2
		General Education Courses	**Credits**
	ENG101 or ENG105	College Composition *or* College Composition with Lab	3 or 3.5
	MAT113	Technical Mathematics I	3
Second Semester		**Diesel, Truck & Heavy Equipment Courses**	**Credits**
	ATH103	Minor Repairs: Heavy Equipment/Truck	2
	ATH121	Heavy Equipment/Truck Drive Trains	4
	ATH171	Troubleshooting Techniques	2
	ATH175	Motor Vehicle Inspection	2
		General Education Courses	**Credits**
	Restricted Elective+	Social Science, Humanities, Communications Elective (100 level or higher)	3
	MAT114	Technical Mathematics II or	3
Third Semester		**Diesel, Truck & Heavy Equipment Courses**	**Credits**
	ATH131	Diesel Engines (Heavy, Gas)	4
	ATH141	Diesel Fuel Systems	3
	ATH201	Shop Orientation and Safety: Heavy Equipment/Truck II	1
	ATH251	Automotive Basic Machine Shop Principles	2
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	CHE100 or PSY108	Chemistry of Everyday Living or Survey of Applied Physics	4
Fourth Semester		**Diesel, Truck & Heavy Equipment Courses**	**Credits**
	ATH133	Diesel Engine Diagnosis and Tune-up (Heavy, Gas)	3
	ATH151	Hydraulic Systems	3
	ATH211	Shop Management: Heavy Equipment/Truck	2
	ATT141	Heating and Air Conditioning	3
	WEL265	Gas Metal Arc Welding Basic	1
		General Education Course	**Credits**
	SPE101	Oral Communication	3
		TOTAL A.A.S. DEGREE CREDITS	**66-66.5**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Heavy Truck and Equipment Systems—One-Year Certificate			
First Semester			**Credits**
	ATH101	Shop Orientation and Safety I: Heavy Equipment/Truck I	1
	ATH113	Heavy Equipment/Truck Braking Systems	3
	ATH163	Heavy Equipment/Truck Steering and Suspension Systems	3
	ATT133	Basic Electrical Systems	3
	ATT135	Advanced Electrical Systems	2
	ENG101 or ENG105	College Composition College Composition with Lab	3 or 3.5
	MAT113	Technical Mathematics I	3
Second Semester			**Credits**
	ATH103	Minor Repairs: Heavy Equipment/Truck	2
	ATH121	Heavy Equipment/Truck Drive Trains	4
	ATH171	Troubleshooting Techniques	2
	ATH175	Motor Vehicle Inspection	2
	Restricted Elective+	Social Science, Humanities, Communications Elective (100 level or higher)	3
		TOTAL ONE-YEAR CERTIFICATE CREDITS	**31-31.5**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Digital Graphic Design

Credentials:

Associate in Applied Science Degree (61-63 credit hours)
Certificate (30 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required.
Certificate: Algebra I required

Program Overview:

Digital Graphic Design professionals utilize advanced technology to create visual and multimedia presentations. They interact with other professionals, clients, customers and managers. They market and sell products, including their own talent. Digital Graphic Designers need skills in cognition, technology, art, business and interpersonal relations in order to succeed.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Digital Graphic Design will:

- Use specific cognitive skills acquired through creative, artistic and logical means.
- Envision a project from beginning to end utilizing knowledge obtained in a highly creative, original, intuitive, and perceptive environment.
- Be able to solve complex problems, make judgments and decisions, and think logically and critically.
- Apply skills in time management and organization while working on multiple projects simultaneously with strict deadlines.
- Have technical proficiency, business skills, production processes, and the knowledge to apply these aspects to careers in Digital Graphic Design or related graphic arts fields.

Digital Graphic Design—A.A.S. Degree Digital Graphic Design—One-Year Certificate*			
First Semester		**Digital Graphic Design Courses**	**Credits**
	ART110*	Two Dimensional Design	3
	DGD101*	Introduction to Digital Photography	3
	DGD113*	Introduction to Photoshop	3
		General Education Courses	
	ENG101*	College Composition (may substitute ENG105)	3
	Restricted Elective* +	Any Math (100 level or higher)	3
Second Semester		**Digital Graphic Design Courses**	**Credits**
	DGD114*	Photoshop for Photographers	3
	DGD121*	Introduction to Typography	3
	DGD131*	Digital Page Layout	3
		General Education Courses	**Credits**
	BUS111*	Accounting I	3
	HUM103*	Intro to Art and Design in the 20th Century	3
Third Semester		**Digital Graphic Design Courses**	**Credits**
	DGD201	Graphic Web Design	3
	DGD220	Digital Illustration	3
	DGD222	3D Modeling and Animation	3
		General Education Courses	**Credits**
	Restricted Elective+	Any Math or Physics (100 level or higher)	3-4
	Restricted Elective+	Communications, Humanities, or Social Science (100 level or higher)	3
Fourth Semester		**Digital Graphic Design Courses**	**Credits**
	DGD232	Advanced Digital Graphics	3
	DGD230	Professional Business Practices	4
		General Education Courses	**Credits**
	SPE101	Oral Communication	3
	Restricted Elective+	Any Math or Physics (100 level or higher)	3-4
	Free Elective+	Any 100 level or higher	3
		TOTAL A.A.S. DEGREE CREDITS	**61-63**
		TOTAL ONE-YEAR CERTIFICATE CREDITS	**30**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Early Childhood Education

Credentials:

Associate in Applied Science Degree (62-63 credit hours)
Certificate (34 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required. SAT's desired
Certificate: Algebra I required.

Program Overview:

Early Childhood Education prepares individuals for rewarding careers as skilled early childhood professionals. The Associate in Applied Science offers the theoretical foundation and practical learning experiences for success in a wide variety of occupations dealing with young children from birth through age eight, including those children with special developmental and learning needs. Students may choose to use this degree as a pathway to earn a bachelor's degree in a PreK-3 teaching certification program.

The Early Childhood Certificate program prepares individuals for entry-level positions at institutions and agencies serving young children and for in-service personnel who want to upgrade their skills.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Early Childhood Education will:

- Understand current theories of child development and consider the cognitive, language, social/emotional and physical domains of development when interacting with young children.
- Know about, understand and value the diversity of children and their families and use this understanding to develop respectful and supportive relationships with families.
- Use best practices to communicate effectively and involve families and communities in their children's development and learning.
- Use observation, documentation and developmentally appropriate assessment tools to track progress, plan curriculum and communicate with families and other professionals.
- Apply principles of child development and positive guidance to plan and implement developmentally appropriate experiences and environments for young children.

- Know the essential concepts, inquiry tools and structure of the content areas of early childhood curriculum and use resources to deepen understanding.
- Use knowledge, resources and a variety of instructional strategies to plan, implement and evaluate meaningful and challenging curriculum that promotes positive learning outcomes for all young children.
- Reflect on their practices, uphold ethical standards, maintain relationships with colleagues and seek out opportunities for continuous professional growth.

Students who hold a current Child Development Associate credential or have submitted an acceptable portfolio to the College will receive nine (9) college credits to offset the following courses: ECE131 Infant/Toddler Curriculum, ECE220 Curriculum I; and ECE229 Early Childhood Professions. A copy of the current CDA certificate must be presented for evaluation.

Early Childhood Education—A.A.S. Degree Early Childhood Education—Certificate*			
First Semester		**Early Childhood Education Courses**	**Credits**
	ECE110*	Child and Adolescent Development	3
	ECE116*	Early Literacy Development	3
		General Education Courses	
	ENG101*	College Composition (may substitute ENG105)	3
	Elective* #	General Education Course	3
	Elective #	General Education Course	3
Second Semester		**Early Childhood Education Courses**	**Credits**
	ECE117*	Observing and Recording in the Field	3
	ECE127*	Cognitive and Affective Development	3
	ECE131*	Infant/Toddler Curriculum	3
		General Education Courses	**Credits**
	Elective #	General Education Course	3
	Elective #	General Education Course	3
Third Semester		**Early Childhood Education Courses**	**Credits**
	ECE216*	Survey of Exceptionalities	3
	ECE220*	Curriculum for Young Children I	3
	ECE232*	Field Placement II	4
		General Education Courses	**Credits**
	Elective* #	General Education Course	3
	Elective #	General Education Course	4
Fourth Semester		**Early Childhood Education Courses**	**Credits**
	ECE221	Curriculum for Young Children II	3
	ECE233	Field Placement III	6
	Education Elective	Any PED or ECE course not taken as a requirement.	3
		General Education Course	**Credits**
	Elective #	General Education Elective	3-4
		TOTAL A.A.S. DEGREE CREDITS	**62-63**
		TOTAL CERTIFICATE CREDITS	**34**

***Certificate Program**

General Education selection distribution
- 3 Credits – Humanities or Social Sciences
- 3 Credits – Math

Note: You may choose one of these courses:
ECE 216-Survey of Exceptionalities or ECE 229-Early Childhood Professions

General Education Selections which are not dictated must be in this distribution
- 3 Credits – Communications
- 9 Credits – Humanities or Social Sciences
- 10 Credits – Math or Science (Minimum of one MAT course and one lab science)

All general education courses must be 100 or above. All students who wish to make use of transfer agreements may be more restricted.

General Education Electives: Refer to the General Education Courses table on pg.58

Education

Credential:

Associate in Applied Science Degree (61-62 credit hours)

Academic Requirement for Admission:

A.A.S. Degree: Algebra I required.

Program Overview:

Education prepares students for rewarding careers in K-8 schools and social service agencies to perform important and supporting roles. This program offers the theoretical foundation and practical learning experiences for success in a wide variety of occupations working with children and adolescents in classrooms and other settings.

Graduates of this program will learn specific teaching methods, behavior management strategies and will apply knowledge of child and adolescent development in their work. Graduates of the program may use this degree as a pathway to continue their education to become a certified K-8 teacher.

This program is appropriate for individuals who wish to gain recertification credits for a current teaching certificate or who wish to upgrade skills in working with all students within their classrooms.

Key Learning Objectives:

Graduates of the Education program will:

- Understand how students learn and develop, and plan learning opportunities that support a student's physical, cognitive and social/emotional development.
- Use a variety of instructional strategies to meet the diverse learning needs of students and to encourage critical thinking and problem solving.
- Understand the principles of extrinsic and intrinsic motivation and use specific management strategies to create a learning environment that fosters positive social interaction and engagement in meaningful learning experiences.
- Recognize that students differ in their approaches to learning and create learning opportunities that are modified and adapted to diverse learners.
- Plan lessons and activities that are based on knowledge of the subject matter, knowledge of the individual students and knowledge of the State and/or National standards.

- Use appropriate formal and informal assessment strategies to inform curricula decisions, adjust instruction and evaluate learning outcomes that are matched to the physical, cognitive and social/emotional needs of individual students.
- Reflect on their practices to continually evaluate the effects of planning and decisions made and to seek opportunities to grow professionally.
- Use ethical behavior when interacting with students, school colleagues, families and agencies in the community to support students' learning and well-being.

Education—A.A.S. Degree			
First Semester		**Education Courses**	**Credits**
	ECE110	Child and Adolescent Development	3
	ECE116	Early Literacy Development	3
	EDB202	Introduction to Education-Schools, Students and Society	3
		General Education Courses	
	ENG101	College Composition (may substitute ENG105)	3
	Elective #	General Education Course	3
Second Semester		**Education Courses**	**Credits**
	ECE117	Observing and Recording in the Field	3
	EDB221	Educational Psychology	3
		General Education Courses	
	Elective #	General Education Course	3
	Elective #	General Education Course	
	Elective #	General Education Course	3-4
Third Semester		**Education Courses**	**Credits**
	ECE216	Survey of Exceptionalities	3
	EDB204	The Teaching Process	3
	PED232	Field Experiences II	4
		General Education Courses	**Credits**
	Elective #	General Education Course	3
	Elective #	General Education Course	4
Fourth Semester		**Education Courses**	**Credits**
	PED115	Development and Guidance of Behavior	3
	PED233	Field Experience III	5
	Restricted Elective	Any Education (EDB or PED) or Early Childhood Education (ECE) Course	3
		General Education Course	**Credits**
	Elective #	General Education Elective	3
		TOTAL A.A.S. DEGREE CREDITS	**61-62**

The following Education courses may be offered during the summer on a rotating basis; one may be taken to fulfill the education elective:

PED118 Working with Students in Math and Science
PED213 Working with Students with Autism
PED223 Working with Students with Learning Disabilities

General Education Selections which are not dictated must be in this distribution
3 Credits – Communications
9 Credits – Humanities or Social Sciences
10 Credits – Math or Science (Minimum of one MAT course and one lab science)

All general education courses must be 100 or above. All students who wish to make use of transfer agreements may be more restricted.

General Education Electives: Refer to the General Education Courses table on page 58

Electrical and Automation Technology

Credential:

Associate in Applied Science Degree (64-66 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I, Algebra II, Geometry, Physics or Chemistry with Lab required. Must be familiar with Microsoft Office, e-mail, and the internet.

Program Overview:

Electrical and Automation Technology prepares students for exciting and well-paying career paths in the field of industrial control and automation. All manufacturing processes rely on electricity, electronics, sensors, communications, networks, motors, hydraulics and pneumatics, and computer control. The program provides sound theory reinforced by laboratory applications which reflect the expectations and responsibilities of graduates in the workplace.

Students receive a solid foundation in DC/AC theory, electrical machines and transformers, power distribution, basic wiring techniques, motor controls, programmable automation controllers, industrial electronics, digital electronics, data communications, hydraulics and pneumatics. Graduates are eligible to sit for the State of Maine Journeyman Electrician Exam. After having passed it, as well as having met the on-the-job experience requirements of the State Electrician Examining Board, they will receive their Journeyman Electrician license. Graduates assume employment in positions including industrial electrical and instrument technician, maintenance technician, engineering assistant, construction electrician, field representative, and many others.

Eastern Maine Community College has an articulation agreement with the Electrical Engineering Technology program at the University of Maine. This allows Electrical and Automation Technology graduates to easily transfer into the University of Maine's 4-year Engineering Technology program. The Electrical and Automation program is an active partner with the Federal Aviation Administration (FAA) Collegiate Training Initiative (CTI) providing an internship and allowing graduates to apply directly to the FAA as a technician or specialist. EMCC is also a Certified Training and Education Site for FANUC Robotics Material Handling Program Software.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in the Electrical and Automation Technology program will function at an entry-level position in the field of industrial control and automation with the following skills:

- Be capable of installing, troubleshooting, and maintaining electrical power and control systems.
- Be able to interpret a wide range of electrical drawings including: construction blueprints, electrical and electronic schematics, ladder diagrams, connection diagrams, one line diagrams, loop sheets, P&IDs, and others.
- Be capable of installing, troubleshooting, and maintaining fluid power systems.
- Be capable of programming, installing, and maintaining programmable control systems.
- Demonstrate a working knowledge of the National Electrical Code and how it affects electrical installations.
- Demonstrate hands-on working knowledge of the following areas: AC/DC circuits, transformers, power distribution, motors, generators, motor controls, electronic components, and circuits.
- Be proficient with electrical test instrumentation: millimeter, oscilloscope, megger, phase sequence meter, motor rotation, tester, and others.
- Be competent with many PC applications: AutoCAD, Easy Power, Automation Studio, MultiSim, Microsoft Office, AB RSLogix, GE Cimplicity, FANUC Handling Tool, and others.
- Be well versed in the practice of electrical and industrial workplace safety procedures.
- Problem solve as an individual as well as part of a team.
- Effectively communicate in speech and the written word.

Electrical and Automation Technology—A.A.S. Degree			
First Semester		**Electrical & Automation Technology Courses**	**Credits**
	EPT116	DC Circuits	3
	EPT176	Programmable Controllers	3
	EPT245	Digital Electronics	3
		General Education Courses	
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Elective	* Math sequence see below	3 or 4
Second Semester		**Electrical & Automation Technology Courses**	**Credits**
	EPT123	Power Distribution	3
	EPT125	AC Electricity	3
	EPT167	Fluid Power Technology	3
	EPT173	DC/AC Machines	3
		General Education Course	**Credits**
	Restricted Elective	*Math sequence see below	3
Third Semester		**Electrical & Automation Technology Courses**	**Credits**
	EPT228	Industrial Electronics	3
	EPT241	Linear Circuits	3
	EPT296	Automation Projects I	3
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	PHY121	Physics I	3
	PHY122	Physics I Laboratory	1
	Restricted Elective	*Math sequence see below	3 or 4
Fourth Semester		**Electrical & Automation Technology Courses**	**Credits**
	EPT155	National Electrical Code	3
	EPT251	Control Systems	3
	EPT298	Automation Projects II	3
		General Education Courses	**Credits**
	SPE101	Oral Communication	3
	Restricted Elective+	Humanities or Social Science (100 level or higher)	3
		TOTAL A.A.S. DEGREE CREDITS	**64-66**

+**Restricted Elective**: Refer to the General Education Courses table on page 58

*MAT-119 College Algebra, MAT-120 College Trig, MAT-161 Statistics
MAT-119 College Algebra, MAT-120 College Trig, MAT-217 Pre-Calc
MAT-120 College Trig, MAT-217 Pre-Calc, MAT-225 Calc I
MAT-217 Pre-Calc, MAT-225 Calc I, MAT-226 Calc II

Electricians Technology

Credential:

Diploma (39 credit hours)

Academic Requirement for Admission:

Diploma: Algebra I required.

Program Overview:

Electricians Technology is a part-time evening program that provides a strong electrical/electronics foundation necessary to meet the increasing technological demands of the electrical trade. Designed for the individual interested in becoming a licensed electrician, this program provides the 576 hours of education needed to meet the licensing requirements of the State of Maine.

Upon successful completion of the program, the State of Maine Electrician Examining Board will allow the student to sit for the Journeyman's Examination. The Electricians Technology program also can be used to meet the educational requirements for various limited electrician licenses.

Students that successfully complete an electrical technology program at a secondary regional technical center may be eligible for up to 3 credits toward Electricians Technology Diploma.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Note: Electricians who want to upgrade skills or gain general knowledge may take individual courses without enrolling in the program.

Electricians Technology—Diploma			
		Electricians Technology Courses	**Credits**
	ELC111	Basic Electricity I	3
	ELC112	Basic Electricity II	3
	ELC121	National Electrical Code	3
	ELC131	Basic Electronics I	3
	ELC141	Electric Motors	3
	ELC151	Electrical Controls I	3
	ELC152	Electrical Controls II	3
	ELC161	Transformers	3
	ELC171	Electrical Blueprint Reading	3
		General Education Courses	
	ENG 101	College Composition – may substitute *ENG 105*	3
	MAT013	Applied Mathematics I	3
	MAT017	Applied Mathematics II	3
	Restricted Elective	PSY211 Human Relations *or* PSY101 Introduction to Psychology	3
		TOTAL DIPLOMA CREDITS	**39**

Emergency Medical Services

Credential:

Associate in Applied Science Degree (65 credit hours)
Certificate (23.5 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I and science course with lab, EMT-Basic.
Certificate: Algebra I and science course with lab.

Program Overview:

The Emergency Medical Services (EMS) Technology program provides the opportunity to earn a Certificate and/or an Associate in Applied Science Degree to individuals who work with ambulance services, rescue squads, fire services, and other first responder organizations. Offered in concert with Atlantic Partners Emergency Services, the program augments a nationally recognized technical core with general education courses. The pro-gram is typically taken on a part-time basis over three to four years.

Awards of Completion are given at three levels as students complete technical courses and are prepared to sit for State Licensure and National Certification. These three Awards of Completion are:

- ***Award for EMT Basic***: EMS123 is required.
- ***Award for EMT Intermediate***: EMS123, EMS201, EMS202, EMS205, and EMS206 are required.
- ***Award for EMT-Paramedic:*** All Intermediate courses as well as EMS208, EMS210, EMS231, EMS212, EMS233, EMS214, EMS215, EMS216, and EMS217.

Emergency Medical Services Technology establishes the educational path to rewarding careers for Maine Licensed EMT's and Paramedics. Offered in concert with Atlantic Partners Emergency Medical Services, this program augments a nationally recognized technical core with a balanced general education component.

Articulation agreements and dual enrollment agreements with many career and technical education centers offer students the opportunity to earn college credits while still in high school.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Emergency Medical Services will function, following completion of State Testing Requirements, as entry-level paramedics for ambulance and rescue squads with the following skills:

- Cardiac skills including advanced cardiac life support skills and cardiac arrest resuscitation
- Use of defibrillators and electrocardiographs
- Medication administration
- Management of specific emergencies including:
    - Environmental emergencies
    - Psychological emergencies
    - Obstetric and gynecological emergencies
    - Neonatal care and resuscitation
    - Airway management
    - Neurological emergencies
    - Endocrine emergencies
    - Infectious diseases
- Advanced trauma management
- Emergency medical care of special populations including geriatric and pediatric patients

Emergency Medical Services

Emergency Medical Services—A.A.S. Degree Emergency Medical Services—Certificate*			
		Emergency Medical Services Courses	**Credits**
	EMS123*	Emergency Medical Technician—Basic	5.5
	EMS201*	Fundamentals of EMS	3
	EMS202*	Cardiac/Respiratory Emergencies	3
	EMS205*	Intermediate Skills Seminar	2
	EMS206*	Intermediate Clinical Preceptorship and Field Internship	3
	EMS208	Advanced Emergency Cardiovascular Care	4.5
	EMS210	Paramedic Emergencies I	2.5
	EMS212	Emergency Care Across the Lifespan	2.5
	EMS214	Paramedic Skills Seminar	2
	EMS215	Paramedic Clinical Preceptorship and Field Internship I	3
	EMS216	Paramedic Clinical Preceptorship and Field Internship II	2
	EMS217	Paramedic Clinical Preceptorship and Field Internship III	3
	EMS231	Paramedic Emergencies II	3
	EMS233	Paramedic Emergencies III	3
		General Education Courses	**Credits**
	BIO121*	Anatomy and Physiology I	3
	BIO122	Anatomy and Physiology II	3
	BIO124*	Anatomy and Physiology I Laboratory	1
	BIO126	Anatomy and Physiology II Laboratory	1
	ENG101*	College Composition (may substitute ENG105)	3
	Restricted Elective+	Math (100 level or higher)	3
	Restricted Electives+	Communications, Humanities, or Social Science (100 level or higher)	9
		TOTAL A.A.S. DEGREE CREDITS	**65**
		TOTAL CERTIFICATE CREDITS	**23.5**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Fine Woodworking and Cabinet Making Program

Credential:
Associate in Applied Science (62-62.5)

Associate in Applied Science Degree Curriculum			
First Semester		**Fine Woodwork and Cabinet Making Courses**	**Credits**
	FWC101	Basic Woodworking	7
	DTG123	Drafting for Cabinetmaking I	3
		General Education Courses	
	ENG101	College Composition (may substitute ENG105)	3-3.5
	MAT113	Technical Mathematics I	3
Second Semester		**Fine Woodwork and Cabinet Making Courses**	
	FWC111	Woodworking	7
	DTG125	Drafting for Cabinetmaking II	3
		General Education Courses	
	MAT114	Technical Mathematics II	3
	SPE101	Oral Communication	3
Summer Semester		**Fine Woodwork and Cabinet Making Courses**	
	FWC200	Cooperative Education	3
Fourth Semester		**Fine Woodwork and Cabinet Making Courses**	
	FWC201	Basic Cabinetmaking and CNC	7
	FWC202	Basic CNC	4
	DTG225	Drafting for Cabinetmaking III	3
		General Education Courses	
	PHY108	Survey of Applied Physics	4
Fourth Semester		**Fine Woodwork and Cabinet Making Courses**	
	FWC211	Advanced Cabinetmaking	7
		General Education Courses	
	ENG215	Business and Technical Writing	3
	Restricted Elective+	Communications/Humanities/Social Science	3
		TOTAL A.A.S. DEGREE CREDITS	**62-62.5**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Fire Science Technology

Credentials

Associate in Applied Science Degree (61-62 credit hours)
Certificate (31-32 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required.
Certificate: Algebra I desired.

Program Overview:

The Fire Science Technology (FST) program is designed to provide both in-service and selected pre-service students with sound technical and academic experiences, enabling them to assume positions of responsibility as members of fire departments or as technical employees of industrial firms and insurance companies. The program will provide training in detecting and eliminating fire hazards and causes through periodic inspections, remedial recommendations, and systematic follow-ups.

Practical technical instruction is designed to meet the fire and life safety needs, responsibilities and obligations of fire protection in engineering, building design, plant protection, fire investigation and all other fields where fire may be involved. The ultimate goal is to assist the in-service student to develop the appropriate skills and knowledge for professional fire protection. Pre-employment students may be admitted upon recommendation of the Fire Science Technology Department.

Courses may also be taken individually or in clusters to meet National Fire Protection Association (NFPA) Certification for various fire science professional standards.

A one-year certificate option is available which will consist of 15 credits of technical classes and 15 credits of selected academic subjects.

Graduates of the program will be employed as industrial fire protection specialists, safety technicians, fire insurance inspectors, inspection bureau representatives, state fire inspectors, and municipal fire department employees, many of whom will earn their degree while employed in their area of specialty.
AAS graduates are prepared to assume positions of leadership within their department, and to manage teams performing tasks in the community and on the fire ground.

All Fire Science Technology students are strongly urged to take EMS123, EMT-Basic and to complete the Firefighter II courses. For curriculum requirements and questions about the program, contact Eastern Maine Community College (974-4600) or the Fire Science Department Chair.

Key Learning Objectives:

Successful completion of an Associate in Applied Science (AAS) Degree in Fire Science will prepare students to:

- Analyze and apply proactive fire prevention and control methods for safe and cost effective fire protection.
- Analyze and apply reactive fire and emergency scene operations for safe and cost effective fire suppression.
- Demonstrate effective leadership and administration in the fire/rescue service.
- Function effectively in teams.

Live-in Student Firefighter Program

Various area fire departments, in cooperation with Eastern Maine Community College are pleased to offer this exciting option to many of our Fire Science students. Students accepted into the "live-in" program (space is limited) live in area fire houses (rent free) in exchange for being "on call" during specific hours. They have additional responsibilities and must provide their own meals and transportation to and from school (a valid driver's license required). Further information is available through our Fire Science Department.

Fire Science Technology-A.A.S. Degree Fire Science Technology-Certificate*			
First Semester		**Technology Courses**	**Credits**
	FIR100	Introduction to Fire Science	3
	FIR110*	Fire Protection Systems	3
	FIR115*	Fire Service Building Construction	3
		General Education Courses	
	ENG101*	College Composition (may substitute ENG105)	3-4
	Restricted Math Elective	MAT113 or higher level math	3
Second Semester		**Technology Courses**	
	FIR150*	Fire Inspector I	3
	FIR155*	Fire Science Hydraulics	3
		General Education Courses	
	PHY108*	Survey of Applied Physics (or Physics I/II)	4
	Restricted Elective*	Social Science/Humanities (100 level or higher)	3
	Restricted Elective	MAT114 or higher level math	3
Third Semester		**Technology Courses**	
	Restricted Fire Elective	FIR200 Hazardous Materials or FIR210 Fire Instructor I or **(FIR205 Fire and Life Safety Educator)	3
	FIR215	Fire Service Leadership	3
	FIR/EMS	Fire Science Elective	3
		General Education Courses	
	Restricted Elective	Social Science/Humanities (100 level or higher)	3
		General Education Courses	
	CHE103*	Chemistry for First Responders	4
	ENG215	Business and Technical Writing	3
Fourth Semester		**Technology Courses**	
	FIR250	Fire Ground Operations	3
	FIR260	Fire Administration	3
	FIR/EMS	Fire Science Elective	3
	FIR/EMS	Fire Science Elective	3
		General Education Courses	
	Restricted Elective	Social Science/Humanities (100 level or higher)	3
		TOTAL A.A.S. DEGREE CREDITS	**61-62**
		***ONE YEAR CERTIFICATE PROGRAM**	**31-32**

** Pending approval

Fire Science Electives are courses that are taught on an occasional basis by Fire Science faculty, but not directly required by the program, FIR 100 Introduction to Fire Protection, FIR 101 Fire Fighter I, FIR 102 Fire Fighter II, FIR 104 Emergency Telecommunicator 1, FIR 125 Student Live-In Seminar, FIR 140 Fire in American Society, FIR 160 Fire Investigation I, FIR 165 Introduction to Wildland Fire Management, FIR 170 Wildland Fire Behavior, FIR 205 Fire & Life Safety Educator, FIR 210 Fire Instructor, FIR 230 Water Supply Analysis, etc.

Fire Science Electives may also be courses from other departments that are directly relevant to the fire service, such as any EMS course.

Restricted Social Science and Humanities Electives are those courses which will be directly applicable to fire service leadership or in dealing with the public. These include, but are not limited to, PHI 101 Ethics, PSY101 Psychology, PSY 111 Labor-Management Relations, PSY 211 Human Relations, PSY 214 Teams – Principles and Practices, Soc 101 Sociology, GIS 230 – Geographic Information Systems, SPE 101 Oral Communications. (Note: Completion of the Paramedic Program will also provide three credits toward the social sciences as the program of study includes behavioral and age-related emergencies).

Students will work with their fire science advisor when selecting their fire science elective courses and other restricted electives.

Firefighter I/II will be credited as a fire science elective (6 credits) provided the student has passed the state certification test and provides proper documentation.

State licensure as an EMT will be credited as a fire science elective. EMT-Basic = 5 credits, EMT-Intermediate = 11 credits, and EMT-Paramedic = 19 credits fire electives + 3 social science electives.

General Technology

Credential:

Associate in Applied Science Degree (60 credit hours)

Academic Requirement for Admission:

A.A.S. Degree: Algebra I required.

Program Overview:

General Technology recognizes skills acquired through employment. Applicants must have earned a four-year high school diploma or a state high school equivalency certificate. All applicants are expected to have successfully completed at least one year of math and one year of science in high school and have at least four years of work experience. During the application process, the applicant must meet with the Chair of the General Technology program.

The student begins the program by creating a portfolio that clearly outlines work-related competencies. The completed portfolio, which is reviewed by a team of appropriate evaluators, is used to determine if college credit will be awarded for prior learning experiences.

The student must meet with an academic advisor to outline and plan the program of study. Graduates of this program are employed in a variety of settings at the time of entry into the program.

General Technology—A.A.S. Degree			
		General Technology Courses (Maximum of 24 Credits)	**Credits**
	GEN101-121	Prior Learning Assessment	1-21
	GEN111 *or* GEN113	Portfolio Development Prior Learning Portfolio Development	1 3
		General Education Courses (Minimum of 21 Credits)	**Credits**
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Electives+	Communications, Humanities, or Social Science (100 level or higher)	9
	Restricted Electives+	Math or Science (100 level or higher)	9
		Related Technology Courses	**Credits**
		Selected Coursework (Minimum: 16 credits)	16-34
		TOTAL A.A.S. DEGREE CREDITS	**60**

+**Restricted Elective**: Refer to the General Education Courses table on page 58

Hospitality and Tourism Management

Credential:

Associate of Applied Science Degree (61 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I, Algebra II, and a lab science

Program Overview:

A Degree in Hospitality and Tourism Management from Eastern Maine Community College offers a diverse mix of career choices and opportunities. Foodservice Management positions as well as Lodging Management and Hotel Operations top the list of many. Some graduates may be interested in Resort Management or positions in the Airline Industry, Sustainable Tourism, Event Management and Entertainment Arts Management. With training in customer service, as well as comprehensive management and marketing techniques and a solid foundation of general education courses, the program includes the building blocks for a rewarding and exciting career. Successfully completing the program will open the door to a variety of lucrative career opportunities. Transfer education or entrepreneurship as well as immediate employment with a vast number of major corporations are just some of the options that a degree in Hospitality and Tourism Management can offer.

Graduates from the program will receive nationally recognized certification in Hospitality Management and Managing Front Desk Operations, Foodservice Sanitation, Fundamentals of Alcohol Service as well as other certifications under the auspices of the Education Foundation of the National Restaurant Association and the American Hotel and Lodging Association.

Key Learning Objectives:

Graduates with an Associate in Applied Science Degree in Hospitality and Tourism Management will be able to perform at both entry-level and mid-level positions in the areas of front desk management and reservations, front line management and supervisory positions in a variety of Hospitality and Tourism relation positions. Training will allow graduates to demonstrate a working knowledge of:

- Front Office Management
- Customer Service Skills
- Basic Restaurant Management and Food Preparation Skills
- Tourism as it relates to Geography
- Event Planning and execution
- Cost Controls and Forecasting Techniques

Hospitality and Tourism Management-A.A.S.			
First Semester		**Technology Courses**	**Credits**
	HTM101	Introduction to Hospitality Management	3
	HTM111	Hotel Front Office and Guest Accounting	3
		General Education Courses	
	ENG101	College Composition (may substitute ENG105)	3
	GEO107	Geography for Travel and Tourism	3
	BCA113	Computer Applications I	3
Second Semester		**Technology Courses**	
	HTM131	Beverage Controls and Sanitation	3
	HTM141	Hospitality Human Resources	3
	HTM161	Customer Service/Relations	3
		General Education Courses	
	Restricted Elective	Arts/Humanities/Social Science(100 level or higher)	3
	BUA111	Accounting I	3
Third Semester		**Technology Courses**	
	HTM221	Introduction to Food Preparation	3
	HTM231	Hospitality Law	3
		General Education Courses	
	SPE101	Oral Communication	3
	Restricted Elective	Mathematics or Science (100 level or higher)	3
	Restricted Elective	Arts/Humanities/Social Science(100 level or higher)	3
Fourth Semester		**Technology Courses**	
	HTM251	Planning and Development of Tourism	3
	HTM261	Meetings and Convention Management	3
		General Education Courses	
	BUA271	Marketing	3
	ENG215	Business and Technical Writing	3
	NUT221	Nutrition	4
		TOTAL A.A.S. DEGREE CREDITS	**61**

+Restricted Elective: Refer to the General Education Courses table on page 59

Liberal Studies

Credential:

Associate in Arts Degree (60-62 credit hours)

Academic Requirement for Admission:

A.A. Degree: Algebra I required.

Program Overview:

The Associate in Arts Degree with a concentration in Liberal Studies is a broad-based educational program with a curriculum spanning a wide range of academic areas. These areas include: Humanities, Communications/English, Social Science, Mathematics, Computer Applications, and Laboratory Science.

Primarily, this degree is intended to ease transfer into some baccalaureate programs at other post-secondary institutions. Additionally, from the Liberal Studies program, students may apply for entry into various professional and technical programs offered at Eastern Maine Community College as well as throughout the Maine Community College System.

Students are encouraged to explore in depth a particular academic discipline and also to enhance their education by electing career and skill specific courses offered through the other programs on campus.

Upon successful completion of at least 60 credit hours in curriculum areas specified below, and with a minimum grade point average 2.0, the student will be awarded the Associate in Arts Degree in Liberal Studies. All courses including electives must be at 100 or higher level.

A guaranteed admissions agreement, **AdvantageU,** was signed by the University of Maine and the Maine Community College System in 2005. The **AdvantageU** program is designed to provide community college students with a streamlined transfer process into the Maine public university of their choice, following completion of their Associate of Arts Degree. Information and application procedures for the **AdvantageU** program are located on the College webpage.

Key Learning Objectives:

Upon completion of the Associate in Arts in Liberal Studies Degree, the graduate is prepared to:

- Communicate clearly and effectively in a variety of contexts.
- Access, evaluate and utilize a variety of information resources.
- Articulate and utilize fundamental mathematical concepts.
- Explain basic general scientific laws, theories, and concepts in either the biological or physical sciences.
- Apply critical thinking skills and link concepts across a variety of disciplines.
- Critically examine the values, rituals and beliefs of cultures that are separated in time or space from one's own.

Core courses (Required of all students)

3	ENG101	College Composition
3	ENG112	Introduction to Literature
3	PHI101	Ethics
3	PSY101	Introduction to Psychology
3	SOC101	Introduction to Sociology
6		Math Electives
20		Restricted Electives
19-21		Free Electives
60-62		Total Credits

Curriculum Area Requirements

6	Mathematics
8	Science with Lab
12	Communications/English
6	Humanities
9	Social Science
19-21	Free Electives
60-62	Total Credits

Liberal Studies—Associate in Arts Degree			
First Semester		**Liberal Studies Courses**	**Credits**
	ENG101	College Composition (may substitute ENG105)	3
	SOC101	Introduction to Sociology	3
	Math Elective	Any Math (100 level or higher)	3
	Free Elective	(100 level or higher)	1-3
	Free Elective	(100 level or higher)	3
Second Semester		**Liberal Studies Courses**	**Credits**
	ENG112	Introduction to Literature	3
	PSY101	Introduction to Psychology	3
	Communications Elective	Any Communications (100 level or higher)	3
	Math Elective	Any Math (100 level or higher)	3
	Free Elective	(100 level or higher)	3
Third Semester		**Liberal Studies Courses**	**Credits**
	Communications Elective	Any Communications (100 level or higher)	3
	Restricted Elective	HIS101 American History Since 1898 *or* HIS111 World History	3
	Science Elective	Any Lab Science (100 level or higher)	4
	Free Elective	(100 level or higher)	3
	Free Elective	(100 level or higher)	3
Fourth Semester		**Liberal Studies Courses**	**Credits**
	PHI101	Ethics	3
	Social Science Elective	Any Social Science (100 level or higher)	3
	Science Elective	Any Lab Science (100 level or higher)	4
	Free Elective	(100 level or higher)	3
	Free Elective	(100 level or higher)	3
		TOTAL A.A. DEGREE CREDITS	**60-62**

+Restricted Elective: Refer to the General Education Courses table on page 59

	Biology		Education		Engineering		Medical Radiography	
First Semester	ENG101	3	ECE110*	3	CPT113	3	BIO121	3
	SOC101	3	ENG101	3	ENG101	3	BIO124	1
	BIO109	4	MAT119	3	HIS101	3	ENG101	3
	MAT117^	3	EDB202*	3	MAT123	4	MAT119	3
	FREE ELE	3	FREE ELE	3	SOC101	3	BMT111*	3
							SOC101	3
Credits		**16**		**15**		**16**		**16**
Second Semester	ENG112	3	EDB221*	3	ENG112	3	BIO122	3
	PSY101	3	ENG112	3	MAT217	3	BIO126	1
	HIS101 or HIS111	3	MAT107^	3	PHI101	3	MAT Ele	3
	BIO209	4	PSY101	3	PSY101	3	PSY101	3
	MAT119^	3	PHI101	3	SPE101	3	PSY211	3
							SPE101	3
Credits		**16**		**15**		**15**		**16**
Third Semester	SPE101	3	ECE216*	3	ENG215	3	BCA113	3
	BIO239	4	ENG215	3	FREE ELE*	3	ENG 112	3
	PSY211, PSY214, or ECO201	3	MAT161*	3	MAT161*	3	HIS101 or HIS111	3
	MAT120^	3	SOC101	3	MAT225*	4	FREE ELE*	3
	CHEM113	4	Lab Sci Ele	4	PHY121	3	FREE ELE*	3
					PHY122	1		
Credits		**17**		**16**		**17**		**15**
Fourth Semester	ENG215	3	EDB204*	3	ECO201	3	ENG215	3
	PHI101	3	HIS101	3	FREE ELE*	3	PHI101	3
	BIO216	4	SPE101	3	MAT226*	4	PHY235*	3
	CHEM114	4	PSY211	3	PHY123	3	FREE ELE*	3
	MAT217^	3	Lab Sci Ele	4	PHY124	1	FREE ELE*	3
Credits		**17**		**16**		**14**		**15**

* Free Electives
^ Math Elective

	Nursing		Pre-Pharmacy		Surgical Technology	
First Semester	BIO121	3	ENG101	3	BIO121	3
	BIO124	1	SOC101	3	BIO124	1
	ENG101	3	BIO109	4	ENG101	3
	MAT119	3	CHE113	3	MAT119	3
	PSY101	3	CHE115	1	PSY101	3
	SOC101	3	MAT225	4	SOC101	3
Credits		**16**		**18**		**16**
Second Semester	BIO122	3	ENG112	3	BIO122	3
	BIO126	1	PSY101	3	BIO126	1
	MAT161^	3	BIO209	4	MAT161^	3
	PSY211	3	MAT161	3	PSY211	3
	PSY231*	3	CHE114	3	PSY231*	3
	SPE101	3	CHE116	1	SPE101	3
Credits		**16**		**17**		**16**
Third Semester	BIO216*	4	COM ELE	3	BIO216*	4
	BCA113	3	PHI101	3	BCA113	3
	ENG112	3	BIO121	3	ENG112	3
	BMT111*	3	BIO124	1	BMT111*	3
	FREE ELE*	3	ORG CHEM~	4	FREE ELE*	3
Credits		**16**		**14**		**16**
Fourth Semester	ENG215	3	ECO201	3	HIS101 or HIS111	3
	HIS101 or HIS 111	3	HIS ELE	3	ENG215	3
	FREE ELE*	3	SPE101	3	FREE ELE*	3
	BMT112*	3	BIO122	3	BMT112*	3
	PHI101	3	BIO126	1	PHI101	3
Credits			ORG CHEM~	4		
		15		**17**		**15**

* Free Electives
^ Math Elective

~Pre-Pharmacy Track – Students are advised to take Organic Chemistry in the third and fourth semesters. This course is not offered at EMCC; however, students may take this course at another institution. Credit will transfer to EMCC with a grade of C or better. Students are advised to discuss specific admission requirements with Husson University's Pharmacy Admission Office.

Medical Assistant Technology

Credential:

Associate in Applied Science Degree (61 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I and Biology with Lab.

Program Overview:

Medical Assistants are multi-skilled allied health professionals specifically trained to work in ambulatory settings such as physician's offices, clinics and group practices, performing administrative and clinical procedures. Students are provided with extensive hands-on training in both entry level and advanced medical assistant competencies in accordance with the American Association of Medical Assistants (AAMA) Essential Guidelines. Graduates from the Medical Assistant Technology program are eligible to sit for national certifying exams, provided they meet all eligibility criteria.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in the Medical Assistant program will be able to:

- Utilize and understand appropriate medical terminology.
- Apply a basic understanding of human physiology and anatomy in the role of a medical assistant.
- Demonstrate a basic understanding of the concepts of pharmacology.
- Demonstrate a basic understanding of medical law and expected ethical behavior for individuals working in the healthcare field.
- Demonstrate a basic understanding of common disease processes.
- Practice principles of effective communication with patients, their families and the healthcare team.
- Demonstrate administrative competency including, but not limited to: clerical functions, bookkeeping procedures, and insurance claim processing.
- Demonstrate clinical competency including, but not limited to: fundamental procedures, specimen collection, diagnostic testing, and patient care.

Medical Assistant—A.A.S. Degree			
First Semester		**Technology & Related Technology Courses**	**Credits**
	MAS101	Introduction to Medical Assisting	1
	BCA113	Computer Applications I	3
	BMT111	Introduction to Medical Terminology I	3
		General Education Courses	**Credits**
	BIO121	Anatomy & Physiology I	3
	BIO124	Anatomy & Physiology I Laboratory	1
	ENG101	College Composition (may substitute ENG105)	3
Second Semester		**Technology & Related Technology Courses**	**Credits**
	MAS111	Clinical Procedures with Lab	4
	MAS121	Medical Office Procedures	3
		General Education Courses	**Credits**
	BIO122	Anatomy & Physiology II	3
	BIO126	Anatomy & Physiology II Laboratory	1
	PSY101	Introduction to Psychology	3
	Restricted Elective+	Any Math (100 level or higher)	3
Third Semester		**Technology & Related Technology Courses**	**Credits**
	MAS201	Principles of Pharmacology	3
	MAS211	Clinical Procedures II with Lab	4
	MAS221	Insurance Coding for the Medical Office	3
	MDT121	Medical Law & Ethics	3
		General Education Course	**Credits**
	PSY231	Developmental Psychology	3
Fourth Semester		**Technology & Related Technology Course**	**Credits**
	MAS231	Medical Assistant Externship	5
		General Education Courses	**Credits**
	BIO222	Pathophysiology	3
	ENG215	Business & Technical Writing	3
	Free Elective	(100 level or higher)	3
		TOTAL A.A.S. DEGREE CREDITS	**61**

+Restricted Elective: Refer to the General Education Courses table on page 59

Medical Office Technology

Credential:

Associate in Applied Science Degree (62 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I, Biology with Lab, and English Composition required.

Program Overview:

The Associate of Applied Science degree in Medical Office Technology is designed to prepare students for employment in physicians' offices, clinics, hospitals, and other health care facilities. With the ever-changing medical climate, the demand for trained office professionals in health care is growing. This program will prepare students to be proficient in a number of vital skill areas including medical coding and billing, transcription, health record maintenance, scheduling, and software applications.

Program Educational Objectives:

Upon completion of the recommended curriculum in the Associate of Applied Science degree in Medical Office Technology, the graduate is prepared to:

- Demonstrate competency with Word, Excel, PowerPoint, Access, and email software applications.
- Access, evaluate, and synthesize information independently using appropriate technology.
- Exhibit oral and written communication skills necessary to convey ideas effectively in a business environment.
- Work effectively in teams with individuals from diverse backgrounds.
- Use effective interpersonal skills in the workplace to assist the completion of individual and team tasks and to promote the image of both the individual and the organization.
- Use logic and mathematical skills to identify and solve problems.
- Produce accurate correspondence and reports using appropriate editing and language skills.
- Produce accurate medical documents [including histories and physicals, chart notes, discharge summaries, consultations, etc.] using appropriate formats and editing and language skills.
- Demonstrate a basic understanding of procedural and diagnostic coding using CPT and ICD-10 CM.

- Schedule appointments, record patient information, file insurance claims, manage accounts receivable, and process insurance claim forms adhering to legal restrictions.
- Adhere to security, privacy, and confidentiality policies.
- Qualify for medical office positions in clinics, hospitals, doctors' offices, and home health care facilities.

Medical Office Technology—A.A.S. Degree			
First Semester		**Medical Transcription Courses**	**Credits**
	BCA113	Computer Applications I	3
	BMT111	Introduction to Medical Terminology I	3
	BUA105	Business Communications	3
		General Education Courses	**Credits**
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Elective	Math (100 level or higher)	3
Second Semester		**Medical Transcription Courses**	**Credits**
	BCA114	Computer Applications II	3
	BMT112	Medical Terminology II	3
		General Education Course	**Credits**
	BIO115	Human Biology	4
	Restricted Elective	Arts/Humanities/Social Sciences (100 level or higher)	3
	Restricted Elective	English/Communications (100 level or higher)	3
Third Semester		**Medical Transcription Courses**	**Credits**
	BMT203	Coding	3
	BMT207	Electronic Medical Records	1
	BMT211	Disease Processes for the Medical Office Specialist	3
	BMT213	Medical Terminology III	3
	BMT121	Medical Law & Ethics	3
		General Education Course	**Credits**
	Restricted Elective	Arts/Humanities/Social Sciences (100 level or higher)	3
Fourth Semester		**Medical Transcription Courses**	**Credits**
	BCA202	Integrated Software Applications	3
	BMT202	Medical Office Procedures	3
	BMT206	Medical Billing	3
	Restricted Elective	BMT221 Medical Transcription I or BMT261 Health Unit Coordinator	3
		General Education Courses	**Credits**
	Restricted Elective	Arts/Humanities/Social Sciences (100 level or higher)	3
		TOTAL A.A.S. DEGREE CREDITS	**62**

Medical Radiography

Credential:

Associate in Science Degree (83-87 credit hours)

Academic Requirements for Admission:

A.S. Degree: Algebra I, Algebra II, Geometry, Biology with Lab, Physics or Chemistry with Lab (preferred). Pre-admission testing required.

Program Overview:

Medical Radiography is a two- or three-year program that integrates scientific concepts into working skills though classroom study and intensive clinical experience. The program concentrates on diagnostic radiology, including angiography and computerized tomography. Other imaging modalities such as nuclear medicine, radiation therapy, sonography, and magnetic resonance imaging are briefly discussed.

Medical radiographers are health professionals who combine technical knowledge with radiographic and anatomical knowledge to obtain diagnostic images of all parts of the human body. Successful radiographers must have a good working knowledge of human anatomy, radiographic positioning, radiologic physics, equipment operation, and quality assurance. As members of a health care team, radiographers must also understand and apply principles of good patient care, and conduct themselves in accordance with medical ethical standards.

The Medical Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182. Graduates are eligible to sit for the national certification examination administered by the American Registry of Radiologic Technologists (ARRT), and to apply for Maine licensure in radiography.

Program Goals & Learning Objectives:

Goal 1: Students will demonstrate clinical competence

Outcome 1: Students will communicate effectively in the healthcare community.
Outcome 2: Students will provide patient care essential to medical imaging procedures.
Outcome 3: Students will demonstrate radiation protection.
Outcome 4: Students will demonstrate knowledge of imaging principles – technical selection.

Outcome 5: Students will demonstrate competence in positioning skills.
Outcome 6: Students will demonstrate competence in routine surgical procedures.

Goal 2: Student will maintain high ethical standards and demonstrate professional conduct

Outcome 1: Students will maintain high ethical standards.
Outcome 2: Students will demonstrate professional conduct.

Goal 3: Students will demonstrate problem-solving and critical thinking skills

Outcome 1: Students will demonstrate the ability to adapt for the trauma patient.
Outcome 2: Students will demonstrate the ability to evaluate radiographic images.

Goal 4: The program will monitor its overall effectiveness

Outcome 1: The program will retain accepted students in the program.
Outcome 2: Graduates seeking employment will be placed in a radiography position.
Outcome 3: Graduates will pass the ARRT national board examination.
Outcome 4: Graduates will express satisfaction with the educational program.
Outcome 5: Employers will express satisfaction with the educational program.

Some graduates of the Medical Radiography program have continued their education at several 4-year institutions that recognize the Associate Degree in Radiography and transfer those graduates at junior status. Examples include the University of Southern Maine and St. Joseph's College.

Medical Radiography—A.S. Degree			
First Semester		**Medical Radiography Courses**	**Credits**
	MRT111	Radiographic Positioning I	3
	MRT117	Radiologic Procedures I	1
	MRT121	Principles of Radiographic Exposure I	2
	MRT131	Medical Terminology	1
	MRT151	Introduction to Health Care	2
	MRT161	Clinical Education I	5
		General Education Courses	**Credits**
	BIO121	Anatomy and Physiology I	3
	BIO124	Anatomy and Physiology I Laboratory	1
	MAT119	College Algebra (may substitute MAT 123)	3
Second Semester		**Medical Radiography Courses**	**Credits**
	MRT112	Radiographic Positioning II	3
	MRT118	Radiologic Procedures II	1
	MRT122	Principles of Radiographic Exposure II	2
	MRT162	Clinical Education II	5
	MRT164	*Advanced Clinical Education (optional)*	*1*
		General Education Courses	**Credits**
	BIO122	Anatomy and Physiology II	3
	BIO126	Anatomy and Physiology II Laboratory	1
	ENG101	College Composition (may substitute ENG105)	3

	Restricted Elective+	Any PHI or PSY (100 level or higher)	3
First Summer		**8-Week Clinical**	**Credits**
	MRT163	Clinical Education III	5
Third Semester		**Medical Radiography Courses**	**Credits**
	MRT211	Radiographic Positioning III	1
	MRT219	Imaging Modalities	1
	MRT251	Advanced Health Care	1
	MRT255	Pathology	1
	MRT261 or MRT267	Clinical Education IV Clinical Education IV (*alternate clinical course*)	6 or 7
		General Education Courses	**Credits**
	BIO272	Radiation Biology	2
	Restricted Elective+	Communications/Humanities/Social Science/Math/Science (100 level or higher) (*PHY108 or PHY109 required if no prior physics*)	3-4
	SPE101	Oral Communication	3
Fourth Semester		**Medical Radiography Courses**	**Credits**
	MRT212	Radiographic Positioning IV	1
	MRT222	Principles of Imaging Physics	1
	MRT230	*Radiography Review & Career Planning (optional)*	*1*
	MRT262 or MRT268	Clinical Education V Clinical Education V (*alternate clinical course*)	7or 9
	MRT264	*Advanced Clinical Education V (optional)*	*1*
		General Education Courses	**Credits**
	PHY235	Radiologic Physics	3
	Restricted Elective+	Any SOC or PSY (100 level or higher)	3
Second Summer		**6-Week Clinical**	**Credits**
	MRT265	Clinical Education VI	3
		TOTAL A.S. DEGREE CREDITS	**83-86**

+Restricted Elective: Refer to the General Education Courses table on page 58

Medical Radiography—A.S. Degree (3-Year)

The 3-year program provides the same educational experiences and requirements as the 2-year Medical Radiography Program. The 3-year program demands a lower credit requirement each semester which may be more suited to some students.

First Semester		**General Education Courses**	**Credits**
	BIO121	Anatomy and Physiology I	3
	BIO124	Anatomy and Physiology I Laboratory	1
	ENG101	College Composition (may substitute ENG105)	3
	MAT119	College Algebra (may substitute MAT123)	3 or 4
	MRT101	Basic Concepts of Radiography	1
	MRT131	Medical Terminology	1
Second Semester		**General Education Courses**	**Credit**
	BIO122	Anatomy and Physiology II	3
	BIO126	Anatomy and Physiology II Laboratory	1
	Restricted Elective+	Any PHI or PSY (100 level or higher)	3
	Restricted Elective+	Any SOC or PSY (100 level or higher)	3
	SPE101	Oral Communication	3
Third Semester		**Medical Radiography Courses**	**Credits**

	MRT111	Radiographic Positioning I	3
	MRT117	Radiologic Procedures I	1
	MRT121	Principles of Radiographic Exposure I	2
	MRT151	Introduction to Health Care	2
	MRT161	Clinical Education I	5
Fourth Semester		**Medical Radiography Courses**	**Credits**
	MRT112	Radiographic Positioning II	3
	MRT118	Radiologic Procedures II	1
	MRT122	Principles of Radiographic Exposure II	2
	MRT162	Clinical Education II	5
	MRT164	*Advanced Clinical Education II (optional)*	1
	Restricted Elective+	Communications, Humanities, Social Science, Math or Science (100 level or higher) *PHY108 or PHY109 required if no prior physics	3-4
First Summer		**8-Week Clinical**	**Credits**
	MRT163	Clinical Education III	5
Fifth Semester		**Medical Radiography Courses**	**Credits**
	BIO272	Radiation Biology	2
	MRT211	Radiographic Positioning III	1
	MRT219	Imaging Modalities	1
	MRT251	Advanced Health Care	1
	MRT255	Pathology	1
	MRT261 or MRT267	Clinical Education IV or Clinical Education IV (*alternate clinical course*)	6 or 7
Sixth Semester		**Medical Radiography Courses**	**Credits**
	MRT212	Radiographic Positioning IV	1
	MRT222	Principles of Imaging Physics	1
	MRT230	*Radiography Review & Career Planning (optional)*	1
	MRT262 or MRT268	Clinical Education V or Clinical Education V (*alternate clinical course*)	7 or 9
	MRT264	Advanced Clinical Education V (optional)	1
	PHY235	Radiologic Physics	3
Second Summer		**6-Week Clinical**	**Credits**
	MRT265	Clinical Education VI	3
		TOTAL A.S. DEGREE CREDITS	**84-87**

+Restricted Elective: Refer to the General Education Courses table on page 59

Medical Transcription

Credential:

Associate in Applied Science Degree (61-63 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I, Biology with Lab, and English Composition required.

Program Overview:

The Medical Transcription program prepares students for entry-level employment as medical transcriptionists by providing the basic knowledge, understanding, and skills required to transcribe medical dictation with accuracy, clarity, and timelines, applying the principles of professional and ethical conduct.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in the Medical Transcription program will function at an entry level position in medical transcription. Among the specific learning objectives are:

- Ability to transcribe medical dictation with accuracy and speed required in the industry.
- Proofreading and editing skills needed for managing accuracy and quality of document production.
- Office procedure skills in records management, electronic calculator operations, proper telephone techniques, methods for arranging travel and meetings, and transcription of physicians orders.
- Medical terminology for anatomy, physiology, pathology, pharmacology, oncology, radiology, surgery, and mental illness.
- Understanding of medical law and expected ethical behavior for individuals working in the health care field.
- Basic understanding of common disease processes including research of dictated terms so that transcriptionists can accurately proof dictation given to them.
- Basic understanding of pharmacology for the medical office.

Medical Transcription—A.A.S. Degree			
First Semester		**Medical Transcription Courses**	**Credits**
	BCA113	Computer Applications I	3
	BMT111	Introduction to Medical Terminology I	3
	BUA105	Business Communications	3
		General Education Courses	**Credits**
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Elective	Math (100 level or higher)	3
Second Semester		**Medical Transcription Courses**	**Credits**
	BCA114	Computer Applications II	3
	BMT112	Medical Terminology II	3
	BMT261	Health Care Coordinator	3
		General Education Course	**Credits**
	BIO115	Human Biology	4
	Restricted Elective	Arts/Humanities/Social Sciences (100 level or higher)	
Third Semester		**Medical Transcription Courses**	**Credits**
	BMT213	Medical Terminology III	3
	BMT211	Disease Processes for the Medical Office Specialist	3
	BMT221	Medical Transcription I	3
	BMT121	Medical Law & Ethics	3
		General Education Course	**Credits**
	Restricted Elective	Arts/Humanities/Social Sciences (100 level or higher)	3
Fourth Semester		**Medical Transcription Courses**	**Credits**
	BCA202	Integrated Software Applications	3
	BMT202	Medical Office Procedures	3
	BMT222	Medical Transcription II	3
		General Education Courses	**Credits**
	Restricted Elective	English/Communications (100 level or higher)	3
	Restricted Elective	Arts/Humanities/Social Sciences (100 level or higher)	3
		TOTAL A.A.S. DEGREE CREDITS	**61**

+Restricted Elective: Refer to the General Education Courses table on page 59

Nursing

Credential:

Associate in Science Degree (70 credit hours)

Academic Requirements for Admission:

A.S.Degree: Algebra I, Biology with Lab, and Chemistry with Lab, college-level Anatomy & Physiology I with Lab and pre-admission testing required.

Program Overview:

The Nursing program offers students an Associate in Science Degree in Nursing. Graduates of approved practical nursing programs may apply for the second year of the program and will obtain an Associate in Science Degree upon successful completion. All students entering the second level (advanced standing) must have completed course requirements comparable to those outlined for first and second semester nursing students.

The Associate in Science Degree in Nursing qualifies graduates to sit for NCLEX-RN and apply for Maine licensure as registered nurses. Employment positions are available in a variety of acute and long-term care settings.

Students are required to provide their own transportation to and from the various clinical agencies. A schedule of classes, provided in advance of the beginning of each semester, may involve evening, daytime, and weekend clinical experiences. In accordance with the grading policy, in order to progress in the program, students must maintain passing grades in clinical coursework, concurrent with C (73-76) grades or better in all required nursing theory courses.

The Nursing program is approved by the Maine State Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC), 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326, 404-975-5000; fax 404-975-5020.

In compliance with clinical agency contracts students may be subjected to criminal background checks. Clinical sites may refuse a student access to the clinical arena based on criminal history.

The Maine State Board of Nursing may refuse to grant a license on the basis of criminal history record information relating to convictions

as described in Title 5, Chapter 5301, Subsection 2 of the Maine Revised Statutes, Annotated.

Key Learning Objectives:

Graduates of the Associate in Science in Nursing program will be able to:

- Assess individuals with complex health problems.
- Engage in therapeutic communication with individuals and families.
- Implement planned nursing interventions using sound clinical judgment.
- Implement the teaching learning process.
- Safely manage the nursing care for a group of individuals with health problems in a structured health care setting.
- Collaborate as a member of the interdisciplinary health care team.
- Advocate for individuals/families using legal and ethical principles of nursing in a health care setting.
- Develop plans for continued personal and professional growth.

Nursing—A.S. Degree			
Prerequisite Courses			
	BIO121	Anatomy and Physiology I	3*
	BIO124	Anatomy and Physiology I Laboratory	1*
First Semester		**Nursing Courses**	**Credits**
	NRG111	Dose Calculation (recommended)	1.5*
	NUR105 NUR107	Foundations of Nursing *or* Introduction to the RN Role	8 or 1.5**
		General Education Courses	**Credits**
	BIO122	Anatomy and Physiology II	3
	BIO126	Anatomy and Physiology II Laboratory	1
	BIO251	Clinical Pharmacology	4
	PSY101	Introduction to Psychology	3
Second Semester		**Nursing Course**	**Credits**
	NUR136	Nursing Across the Life Span I	10
		General Education Courses	**Credits**
	ENG101	College Composition (may substitute ENG 105)	3
	PSY231	Developmental Psychology	3
Third Semester		**Nursing Courses**	**Credits**
	NUR267	Nursing Across the Life Span II	8
	NUR281	Professional Issues I	1
		General Education Courses	**Credits**
	BIO216	General Microbiology	4
	SPE101	Oral Communication	3
Fourth Semester		**Nursing Courses**	**Credits**
	NUR270	Nursing Across the Life Span III	8
	NUR282	Professional Issues II	1
		General Education Courses	**Credits**
	Restricted Elective+	Communications, Humanities, Social Science, Math, or Science (100 level or higher)	3
	Restricted Elective+	Communications, Humanities, Social Science, Math, or Science (100 level or higher)	3
		TOTAL A.S. DEGREE CREDITS	**70-71.5****

+Restricted Elective: Refer to the General Education Courses table on page 59

*Recommended

**Advanced standing students

Refrigeration, Air Conditioning and Heating Technology

Credentials:

Associate in Applied Science Degree (64-64.5 credit hours)
One-Year Certificate (34-34.5 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required. Algebra II, Geometry, and Physics or Chemistry with Lab desired.
One-Year Certificate: Algebra I required.

Program Overview:

Refrigeration, Air Conditioning, and Heating Technology provides students with opportunities to become proficient in the installation, maintenance, and repair of commercial refrigeration, air conditioning, and heating equipment. Special emphasis is placed on trouble-shooting and problem solving. Energy efficiency and green concepts are reinforced throughout the curriculum. Graduates of this program find employment in a variety of commercial and industrial settings, with refrigeration, air conditioning, and heating contractors, and in sales positions. These licenses or certifications are available to graduates of the program: Limited Electrician in Refrigeration License, EPA Refrigerant Certification, Oil Burner Journeyman License, Propane/Natural Gas License.

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Refrigeration, Air Conditioning and Heating will function at an entry-level position as a technician for installing, repairing, and servicing refrigeration, air conditioning, and heating equipment in the following areas:

- Gas and oil fired burners and heating appliance installation and service.
- Hydronic and refrigeration piping systems installation.
- Proper pipe fitting technique related to soldering, brazing, and pipe threading.
- Proper customer-service procedures relating to service calls.
- Proper usage of test instruments, gauges, electrical test meters, electronic leak detectors, temperature testers, refrigerant recovery equipment.
- Air conditioning, refrigeration and heating system troubleshooting and analysis.

- Geothermal and air source heat pump installation and service.

Graduates will be certified in the following:

- EPA Refrigerant Certification “Universal Technician” category
- CETP gas certification that leads to a State of Maine Gas Technician License

Graduates are eligible for other State of Maine Licensing:

- Full educational requirements and partial field experience for the journeyman oil burner license
- Partial educational requirements and partial field experience for the limited electrician - refrigeration license

Refrigeration, Air Conditioning and Heating—A.A.S. Degree Refrigeration—One-year Certificate*			
First Semester		**Technology Courses**	**Credits**
	RAH103*	Refrigeration and Air Conditioning Lab I	2
	RAH113*	Refrigeration Components and Physical Principles	2.5
	RAH123*	Refrigeration Systems and Flow Controls	2.5
	RAH133*	RAH Electricity I	3
		General Education Courses	**Credits**
	ENG101 *or** ENG105	College Composition *or* College Composition with Lab	3 or 3.5
	MAT113	Technical Mathematics I	3
Second Semester		**Technology Courses**	**Credits**
	RAH104*	Refrigeration and Air Conditioning Lab II	2
	RAH138*	RAH Electricity II and Motors	3
	RAH144*	Commercial Refrigeration Systems I	2.5
	RAH147*	Commercial Refrigeration Systems II	2.5
		General Education Courses	**Credits**
	DTG173*	HVAC Print Reading	2
	MAT114	Technical Mathematics II	3
	SPE101*	Oral Communications	3
Third Semester		**Technology Courses**	**Credits**
	RAH203	Refrigeration and Air Conditioning Lab III	2
	RAH234	RAH Controls I	3
	RAH264	Heat Pump Systems	2
	RAH272	Gas Heating Systems	3
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	PHY108	Survey of Applied Physics	4
Fourth Semester		**Technology Courses**	**Credits**
	RAH204	Refrigeration and Air Conditioning Lab IV	2
	RAH237	RAH Controls II and Transformers	3
	RAH283	HVAC Systems I	2.5
	RAH287	HVAC Systems II	2.5
		General Education Course	**Credits**
	PSY211	Human Relations	3
		TOTAL A.A.S. DEGREE CREDITS	**64-64.5**
		TOTAL ONE-YEAR CERTIFICATE	**34-34.5**

Restaurant and Foods Service Management

Credential:

Associate in Applied Science Degree (63-65 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I, Keyboarding, and English Composition required.

Program Overview:

The Restaurant and Foods Service Management program is designed to meet the educational needs of Food Service Specialist students who wish to pursue careers in food service management or to operate their own businesses. Students may apply for admission to the Restaurant and Foods Service Management program after having earned a Certificate in Culinary Arts (Food Service Specialist). Advanced standing is awarded for courses earned in the Culinary Arts program.

Restaurant Management—A.A.S. Degree			
		Food Management Courses	**Credits**
		Advanced Standing: Food Service Specialist Certificate	30
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	Restricted Elective	ECO221 Introduction to Microeconomics *or* ECO222 Introduction to Macroeconomics *or* PSY101 Introduction to Psychology *or* PSY 211 Human Relations or SOC101 Introduction to Sociology	3
		Math/Science Courses	**Credits**
	Restricted Elective	MAT 117 Intermediate Algebra *or* MAT 119 College Algebra	3
	Restricted Electives+	Math or Science (100 level or higher)	6-8
		Specialty Area (18 credits required)	**Credits**
	BUA111	Accounting I	3
	BUA131	Business Law I	3
	BUA132	Business Law II	3
	BUA291	Principles of Management and Organization	3
	BUA263	Sales and Customer Service	3
	BUA271	Marketing Principles	3
		TOTAL A.A.S. DEGREE CREDITS	**63-65**

+**Restricted Elective**: Refer to the General Education Courses table on page 59

Surgical Technology

Credential:

Associate in Applied Science Degree (65 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I and Biology with Lab or Chemistry with Lab required.

Program Overview:

In this program, the student will develop the knowledge, skills and attitudes necessary to practice as a certified surgical technologist by acquiring the following fundamental capabilities:

1. to utilize appropriate medical terminology,
2. to apply a basic understanding of human physiology and surgical anatomy in the perioperative role of a surgical technologist,
3. to demonstrate a basic understanding of the concepts of pharmacology,
4. to demonstrate theoretical and practical proficiency in surgical aseptic technique, surgical procedures and patient care,
5. to identify and assume appropriate responsibility for patient care.

Prior to completing the program, students will take the national boards for the Certification in Surgical Technology. The Surgical Technology program is accredited by the Commission on Accreditation of Applied Health Programs (CAAHEP).

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Surgical Technology will function at an entry level position as a Surgical Technologist with the following skills:

- use appropriate instrumentation and procedural steps in general surgery, obstetrics-gynecology, genitor-urinary, otolaryngology, eye, plastic and reconstructive, neurosurgery, vascular, cardiovascular-thoracic, and orthopedic surgical areas.
- apply a basic understanding of human physiology and surgical anatomy in the perioperative role of a surgical technologist.
- use appropriate aseptic techniques in surgery.
- utilize appropriate medical terminology.
- make basic measurements for dosage and drug calculations.
- use safe handling procedures for drugs and solutions.

Surgical Technology—A.A.S. Degree			
First Semester		**General Education Courses**	**Credits**
	BIO121	Anatomy and Physiology I	3
	BIO124	Anatomy and Physiology I Laboratory	1
	ENG101	College Composition (may substitute ENG105)	3
	PSY101	Introduction to Psychology	3
	Restricted Elective+	Communications, Humanities, or Social Science (100 or higher)	3
	Restricted Elective+	Communications, Humanities, or Social Science (100 or higher)	3
Second Semester		**Surgical Technology Courses**	**Credits**
	BMT103	Introduction to Medical Terminology	1
	SUR105	Introduction to Surgical Technology	7
	SUR117	Pharmacology for Surgical Technologists	2
		General Education Courses	**Credits**
	BIO122	Anatomy and Physiology II	3
	BIO126	Anatomy and Physiology II Laboratory	1
Third Semester		**Surgical Technology Course (Summer)**	**Credits**
	SUR114	Surgical Technology I	15
		General Education Course	**Credits**
	BIO216	General Microbiology	4
Fourth Semester		**Surgical Technology Course (Fall)**	**Credits**
	SUR123	Surgical Technology II	16
		TOTAL A.A.S DEGREE CREDITS	**65**

+Restricted Elective: Refer to the General Education Courses table on page 59

Trade and Technical Occupations

Credential:

Associate in Applied Science Degree (60 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required. Geometry and Physics desired.

Program Overview:

Trade and Technical Occupations recognizes proficiency acquired through various trades and technical occupations in which individuals have completed or are in the process of completing a formal registered apprenticeship program (i.e., journeyman status). The apprenticeship program must be a minimum of three years in length and must be registered by either the Maine State Apprenticeship Council or the Bureau of Apprenticeship Training, U.S. Department of Labor; or be a formal program approved by the college.

Students who have completed or are currently enrolled in a registered apprenticeship program may apply for admission into the Trade and Technical Occupations program. The degree is awarded after students have completed all requirements of the apprenticeship program. Applicants are responsible for providing all required documentation.

Trade and Technical Occupations—A.A.S. Degree			
		Trade and Technical Occupations Courses (Maximum of 24 Credits)	**Credits**
	TTO112	Apprenticeship I *or*	12
	TTO118	Apprenticeship II *or*	18
	TTO124	Apprenticeship III	24
		General Education Courses (Minimum of 21 Credits)	**Credits**
	ENG101	College Composition (may substitute ENG105)	3
	Restricted Electives+	Communications, Humanities, or Social Science (100 level or higher)	9
	Restricted Electives+	Math or Science (100 level or higher)	9
		Related Technology Courses	**Credits**
		Selected Coursework	15-27
		TOTAL A.A.S. DEGREE CREDITS	**60**

+Restricted Elective: Refer to the General Education Courses table on page 59

Welding Technology

Credentials:

Associate in Applied Science Degree (64-64.5 credit hours)
Certificate in Pipe Welding (31 credit hours)
Structural Welding Certificate (20 credit hours)
Advanced Certificate in Pipe Fitting (16 credit hours)

Academic Requirements for Admission:

A.A.S. Degree: Algebra I required. Algebra II, Geometry, and Physics or Chemistry with Lab desired.
One-Year Certificate: Algebra I required. Geometry desired.
Advanced Certificate in Pipe Fitting: AAS in Welding

Program Overview:

Welding Technology offers students a modular based curriculum in one, two, and three-year formats including technical courses in basic and pipe welding, advanced welding, and pipe fabrication. The one-year welding option offers training in basic and pipe welding techniques utilizing the shielded metal arc welding process. Second year students take Advanced Welding with additional pipe fabrication.

All the welding program options are combined with a variety of general education courses and technology theory courses. Significant emphasis is placed on math, communication, physical science, and social science courses. Special courses in the welding metallurgy and quality assurance/quality control are also required within the technology. This mix of theory courses, general education courses, and skill training places our graduates in high demand.

There are a number of scholarships awarded to our students in Welding Technology. The Reginald Roy Scholarship was offered for the first time for the 2000-2001 academic year. This scholarship encourages students to maximize skill potential and career opportunities.

The Welding Department has Dual Enrollment Agreements with the Portland Area Technical High School (PATHS) and Mid Coast School of Technology (MCST).

Key Learning Objectives:

Graduates with the Associate in Applied Science Degree in Welding Technology function at an entry level position for welders in the following areas:

- Shielded Metal Arc Welding (S.M.A.W.) in all positions for mild steel and for pipe welding.
- Flux-Cored Arc Welding (F.C.A.W.) in all positions for mild steel plate.
- Gas Metal Arc Welding (G.M.A.W.) in all positions for mild steel plate, aluminum plate, and mild steel pipe.
- Gas Tungsten Arc Welding (G.T.A.W.) in all positions for mild steel, aluminum, and stainless steel plate, mild steel, and stainless steel pipe.
- Oxy-Fuel Cutting (O.F.C.) for mild steel plate ANSI/A.W.S.C4.2-90 American national standard.
- Air Carbon Arc Cutting (C.A.C.-A) for mild steel plate.
- Plasma Arc Cutting (P.A.C.) for mild steel and stainless steel.
- Blue print reading and drafting for welders.
- Quality Assurance/Quality Control for welding operations.

Graduates take the following tests:

- A.W.S. Structural Certification
- A.S.M.E. Section 9 S.M.A.W. Pipe Certification
- A.S.M.E. Section 9 G.T.A.W. Pipe Certification

The Welding program is an American Welding Society (AWS) Designated Educational Institutional Member. It is also an American Welding Society (AWS) Certified S.E.N.S.E. (Schools Excelling Through National Skills Standards Education) Program.

Welding Technology—A.A.S. Degree Welding Technology—Certificate in Pipe Welding*			
First Semester		**Welding Technology Courses**	**Credits**
	WEL111*	Metal Technology	3
	WEL131*	Shielded Metal Arc Welding (SMAW) Basic	2
	WEL132*	Shielded Metal Arc Welding Advanced I	2
	WEL134*	Shielded Metal Arc Welding Structural	2
	WEL151*	Flux-Cored Arc Welding (FCAW)	2
	WEL186*	Blueprint Reading and Drafting for Welders/Fitters	3
		General Education Course	**Credits**
	MAT113	Technical Mathematics I	3
Second Semester		**Welding Technology Courses**	**Credits**
	WEL133*	Shielded Metal Arc Welding Advanced II	2
	WEL135*	Shielded Metal Arc Welding Pipe I	2
	WEL136*	Shielded Metal Arc Welding Pipe II	2
	WEL137*	Shielded Metal Arc Welding Pipe III (ASME Qualification)	2
		General Education Courses	**Credits**
	ENG101 or ENG105*	College Composition College Composition with Lab	3 or 3.5
	MAT114	Technical Mathematics II	3
Third Semester		**Welding Technology Courses**	**Credits**
	WEL265	Gas Metal Arc Welding Basic	1
	WEL267	Gas Metal Arc Welding Advanced	1
	WEL269	GMAW Pipe	1
	FIT231	Pipefitting Fundamentals	2
	FIT233	Practical Pipefitting I	1.5
	FIT235	Practical Pipefitting II	1.5
		General Education Courses	**Credits**
	ENG215	Business and Technical Writing	3
	PSY211	Human Relations	3
	Restricted Elective	PHY121 Physics I *and* PHY122 Physics I Laboratory *or* CHE100 Chemistry for Everyday Living *or* PHY108 Survey of Applied Physics	4
Fourth Semester		**Welding Technology Courses**	**Credits**
	WEL222	Quality Assurance/Quality Control	4
	WEL270	GTAW Basic	2
	WEL277	Gas Tungsten Arc Welding Pipe I	2
	WEL278	Gas Tungsten Arc Welding Pipe II	2
	WEL279	Gas Tungsten Arc Welding Pipe III	2
		General Education Course	**Credits**
	Restricted Elective+	SPE101 Oral Communication *or* Any PSY or SOC (100 level or higher)	3
		TOTAL A.A.S. DEGREE CREDITS	**64-64.5**
		TOTAL ONE-YEAR CERTIFICATE CREDITS	**31-31.5**

+Restricted Elective: Refer to the General Education Courses table on page 59

The Structural Welding Certificate program, offered primarily in the evening, provides the education and training needed to enter the welding industry as a structural welder. This program is designed for professionals working in the maintenance and construction trades and for persons wanting to retrain for new employment. Students can continue their present employment while learning the welding skills to become certified structural welders under the jurisdiction of the American Welding Society.

Welding Technology—Certificate			
First Semester		**Welding Technology Courses**	**Credits**
	WEL111	Metal Technology	3
	WEL131	Shielded Metal Arc Welding (SMAW) Basic	2
	WEL132	Shielded Metal Arc Welding (SMAW) Advanced I	2
	WEL134	Shielded Metal Arc Welding (SMAW) Structural	2
	WEL151	Flux-Cored Arc Welding (FCAW)	2
	WEL186	Blueprint Reading & Drafting for Welders/Fitters	3
		General Education Courses	**Credits**
	MAT113	Technical Mathematics I	3
	Restricted Elective+	Social Science (100 level or higher)	3
		TOTAL CERTIFICATE CREDITS	**20**

+Restricted Elective: Refer to the General Education Courses table on page 59

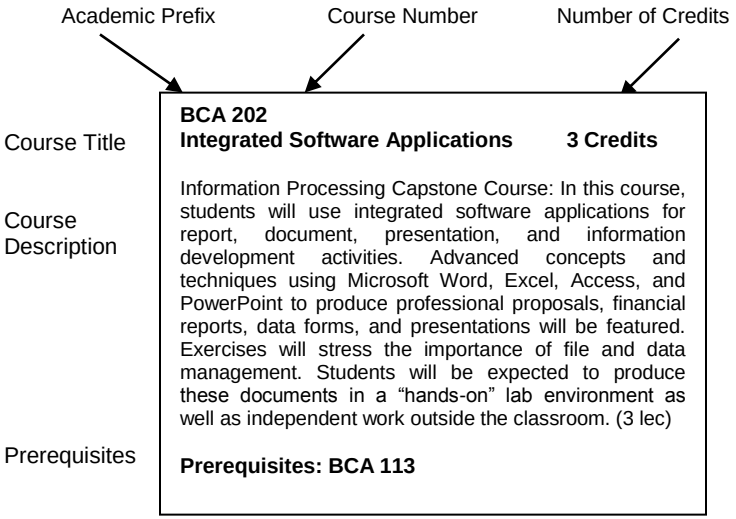
These abbreviations are used in the course descriptions that follow.

ART	Art	FIT	Pipefitting
ASL	American Sign Language	FWC	Fine Woodworking & Cabinet Making
ATA	Automotive	FYE	First Year Experience
ATH	Diesel, Truck and Heavy Equipment	GEO	Geography
ATT	Automotive and Diesel Technology	GEN	General Technology
BCA	Business Computer Applications	GIS	Geographic Information Systems
BCT	Building Construction	HIS	History
BIO	Biology	HTM	Hospitality and Tourism Management
BMT	Business Management Technology	HUM	Humanities
BUA	Business Management	ISA	Industrial Safety
BUS	Business Management	KOR	Korean Language
CAD	Computer Aided Drafting	LAE	Introductory English
CET	Civil Engineering	LAM	Introductory Mathematics
CHE	Chemistry	MAS	Medical Assisting
COL	College	MAT	Mathematics
CST	Computer Systems	MRT	Medical Radiography Technology
CUL	Culinary Arts	MUS	Music
DGD	Digital Graphic Design	NUR	Nursing
DTG	Drafting	NUT	Nutrition
ECE	Early Childhood Education	PED	Education
ECO	Economics	PHI	Philosophy
EDB	Education	PHY	Physics
ELC	Electricians Technology	PSY	Psychology
ELL	English as a Second Language	RAH	Refrigeration Air Conditioning & Heating
EMS	Emergency Medical Services	SOC	Sociology
ENG	English	SPE	Speech
EPT	Electrical and Automation	SUR	Surgical Technology
FAR	Fine Arts	TTO	Trade and Technical Occupations
FIR	Fire Science Technology	WEL	Welding

Explanation of Course Descriptions

The following are 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 distributions contained in this catalog are based on a "typical" 15 week semester. A number of technical programs have 5-week modules. 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).



Explanation of lec, lab hours:

Lecture Hours (lec) - the number of hours per week a particular course meets in an instructor directed classroom situation.

Lab Hours (lab) – the number of hours per week a particular course meets and where students are in a practical, occupational or applied learning situation. Also, can be 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

Hours (hr) – the number of training hours in a technical shop per module.

Clinical or Field Experience or Practicum Hours – Credit Hours – the number of credit hours awarded to the student who successfully completes a course.

Definition of Units of Credit -
Eastern 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; one semester credit hour for not fewer than forty-five hours of shop instruction (contact hours) or the equivalent..."

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

ART 100 Drawing I **3 Credits**

A foundation course in two dimensional design. Students will examine the elements and principles of two dimensional design using hands on examples and exercises. Students will use both conventional media (paper, pencils, ink, glue, etc.) and digital media (computer graphics programs, such as Adobe Illustrator) to complete the exercises. Emphasis is placed on composition, materials manipulation, problem-solving skills, critiques and class participation. (2 lec, 2 lab)

ART 112 2-D Design **3 credits**

Introduces basic art theory such as the elements and principles of design. Emphasis is placed on composition, materials manipulation, problem solving skills and critically analyzing one's own artwork as well as other students' work. (6 lab)

ART 125 3-Dimensional Design **3 Credits**

3-Dimensional Design is an introduction to both sculpture and applied design. This course covers current materials and methods used to create 3-dimensional forms. Abstract 3-dimensional concepts as they relate to the creative process will also be studied. Students will be expected to fabricate, evaluate and verbally discuss assignments and examples of these concepts, as well as understand the principles of organizing form and space and the processes and concepts of 3-dimensional design. Assignments will also involve practical considerations of structure, materials, and craftsmanship. This course is taught through hands-on projects, lectures, critiques and class discussions. Trips to local museums and galleries augment class work (2 lec, 2 lab)

ART 130 Fine Art Photography **3 credits**

This course is designed as an elective class that helps promote the use of photography as an art form. Students are encouraged to explore untraditional uses of the camera and promote original thinking through the use of imagery. Using digital photography in a black and white form, students will capture images based on their own personal preference. Extensive experimentation is encouraged as students define their process for creating their images. Weekly lectures and discussions allow the students to talk about their work, provide encouragement as well as valuable feedback to how to use the camera as an artistic tool, and promote the evolution and progression of their photographs as art. At the end of the course all student will participate in an art show with their peers. Concentration on expressive and aesthetic aspects of photography in fine arts. Emphasis on ability to manipulate and compose with light as a crucial element in the organization of space (2 lec, 2 lab)

ART 132 Commercial Photography **3 credits**

In this course students learn to create professional quality images for the advertising, commercial and industrial markets. Through a series of lectures as well as hands-on experience, students will come away with a understanding of the concepts of studio lighting and location lighting setups, as well as how to properly photograph people, still life, products and food in those environments.

The course emphasizes the use of photography integrated with design to create effective graphics**.** (2 lec, 2 lab)

ASL 101 Introduction to American Sign Language I 3 Credits
Introduces students to the language most widely used in the adult American Deaf Community. It also introduces students to Deaf Culture, exploring issues of relevance and import in the Deaf Community such as cochlear implants, interpreted education and empowerment. Although technical, using videotexts, workbooks, pair practice, lecture, readings and Deaf guests, students experience an eye-opening, energizing and skills building course. (3 lec)

ASL 102 Sign Language II 3 Credits
ASL 201 builds upon the foundations of the language learned in ASL 101. Whereas ASL 101 had a focus of receptive skills (understanding the signs of others), this course focuses on the students expressive skills (one's ability to produce the signs) in a grammatically correct fashion, perfecting the formation of the five parameters of placement, location, palm orientation, movement and facial expression. The second half of the textbook is used, completing all lessons the American Sign Language Teacher's Association (ASLTA) deemed required for basic sign language skills. Extensive interaction is required amongst classmates. In class presentations will be required. An out of class research project is required. (3 lec) **Prerequisite: ASL 101**

ATA 101 Automotive Shop Orientation and Safety I 1 Credit
Familiarizes students with shop safety, regulations, liabilities, and legalities as they pertain to the automotive industry. The course identifies proper use of hazardous materials, shop equipment practices and procedures, and correct operation of automobiles and equipment in shop areas. (20 hr)

ATA 105 Automotive Minor Repairs 2 Credits
Teaches the theory, function, and diagnosis of automotive performance for maintenance service and light duty repairs to cooling, lubricating, electrical and exhaust systems. (60 hr) **Prerequisite: ATA 101 or permission**

ATA 111 Automotive Braking Systems 2 Credits
Introduces the theory, operation, service, and repair of hydraulic brakes, vacuum boosters, power brakes and all related components. It also addresses the importance and use of asbestos removal equipment when servicing automotive braking systems. (60 hr) **Prerequisite: ATA 101 or permission**

ATA 122 Manual Transmissions and Transaxles 3 Credits
Presents the theory and operation of the complete drive train and familiarizes students with tools and techniques necessary to properly maintain, diagnose, service and repair manual transmissions, manual transaxles, and all related components. (80 hr) **Prerequisite: ATA 101 or permission**

ATA 123 Automatic Transmissions and Transaxles 4 Credits
Presents the theory and operation of the complete drive train, and familiarizes students with tools and techniques necessary to properly maintain, diagnose, service, and repair automatic transmissions, automatic transaxles, torque

converters, and all related components. (100 hr) **Prerequisite: ATA 101 or permission**

ATA 131 Engines (Gas and Light Duty Diesel) 4 Credits
Introduces the theory and operation of the internal combustion engine, its construction and designs, and evaluation and testing procedures to determine engine condition. The course identifies the skills and tools needed to test and recondition engines and components, and emphasizes correct techniques and safety procedures for repairing and removing engines. (120 hr) **Prerequisite: ATA 101 or ATT 133 or permission**

ATA 136 Engine Performance and Diagnosis 2 Credits
Provides the knowledge and skills needed to properly diagnose and maintain engine systems in a safe and professional manner. (60 hr) **Prerequisite: ATA 101 or ATT 131 or permission**

ATA 141 Automotive Fuel Systems 3 Credits
Teaches the theory and operations of gas and light diesel fuel injection systems and related components. It addresses the safety requirements, skills and tools needed for their diagnosis, repair, and service. (100 hr) **Prerequisite: ATA 101 or ATT 133 or permission**

ATA 161 Automotive Steering and Suspension 3 Credits
Instructs the theory and operation of steering and suspension systems; safety precautions to be followed when servicing steering and suspension systems; correct selection of tools and proper use when servicing; and procedures and equipment for performing front-end alignments and wheel balancing. (80 hr) **Prerequisite: ATA 101 or permission**

ATA 171 Failure Analysis and Vehicle Inspection 2 Credits
Emphasizes the importance of proper failure analysis procedures in order to prevent reoccurrence of component failure. Students learn procedures for testing and inspecting automobiles according to State-of-Maine Motor Vehicle Inspection Laws with emphasis on steering, suspension and brake systems. (60 hr) **Prerequisite: ATA 101 or permission**

ATA 186 Drivability and Emission Control Systems 3 Credits
Focuses on automotive electronics including all phases of computer-controlled systems that affect vehicle emissions standards and drivability. Topics also include clean air law I/M 240. (80 hr) **Prerequisite: ATA101 or ATT133 or permission**

ATA 201 Automotive Shop Orientation and Safety II 1 Credit
Continues to familiarize students with shop safety, regulations, liabilities and legality as they pertain to the automotive industry. The course treats proper use of hazardous materials, shop equipment practices and procedures, and correct operation of automobiles and equipment in shop areas. (20 hr)

ATA 211 Automotive Shop Management 2 Credits
Addresses the fundamentals of operating an automotive fleet or automotive dealer service facility. The course covers public relations, customer service, work and PM scheduling, repair orders, warranty claims, hiring and training practices, shop organization, tools and equipment, and the importance of coordinating with other departments. (60 hr)

ATH 101 Shop Orientation and Safety: Heavy Equipment/Truck I 1 Credit
Familiarizes students with shop safety, regulations, liabilities and legalities as they pertain to the truck and heavy equipment industry and identifies proper use of hazardous materials, shop equipment practices and procedures, and correct operation of trucks and heavy equipment in shop areas. (20 hr)

ATH 103 Minor Repairs: Heavy Equipment/Truck 2 Credits
Teaches the theory, function, and diagnosis of truck and heavy equipment performance for maintenance service and light duty repairs to cooling, lubricating, electrical and exhaust systems. It addresses the safety procedures that need to be followed when arc or gas welding in the automotive industry. (60 hr) **Prerequisite: ATH 101 or ATH 201**

ATH 113 Heavy Equipment/Truck Braking Systems 3 Credits
Introduces the theory, operation, service, and repairs of hydraulic brakes, vacuum boosters, air brakes, and all related components including electrical and emphasizes the importance and use of asbestos removal equipment when servicing braking systems. The course also offers preparation for CDL air brake testing. (80 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 121 Heavy Equipment/Truck Drive Trains 4 Credits
Presents the theory and operation of the complete drive train. Familiarizes students with tools and techniques necessary to properly maintain, diagnose, service, and repair automatic transmissions, manual transmissions, torque converters, final drives, front-wheel drives, and all related components. (120 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 131 Diesel Engines (Heavy, Gas) 4 Credits
Introduces the theory and operation of the two and four-cycle internal combustion engine and the construction and designs of diesel and gas engines; addresses the advantages and disadvantages of both, as well as the evaluation and testing procedures used to determine engine condition, and measure engines and their components. It identifies the skills and tools needed to test, remove and recondition engines and components, including electrical, while emphasizing correct techniques and safety procedures. (120 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 133 Diesel Engine Diagnosis and Tune-up (Heavy, Gas) 3 Credits
Provides the knowledge and skills required to troubleshoot and tune engines with mechanical and electrical components in a safe and professional manner, and teaches the proper use of diagnostic equipment and the correct techniques needed to make adjustments. (80 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 141 Diesel Fuel Systems 3 Credits
Provides the theory and operations of carburetors, gas and diesel fuel injection systems, related components, including electrical/electronics, and fuel qualities. Teaches the skills and tools needed to diagnose and service fuel systems and to perform on-vehicle fuel injection adjustments. (100 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 151 Hydraulic Systems 3 Credits
Teaches the theory, principles, terminology, and schematics of hydraulics. Students learn the components of hydraulic systems, as well as their applications. Students also learn how to trouble-shoot/test both manual and electrical controls, and perform preventive maintenance and repair of hydraulic pumps, motors, valve bodies, accumulators, lines and actuators in a safe and professional manner. (80 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 163 Heavy Equip/Truck Steering & Suspension Systems 3 Credits
Instructs the theory and operation of steering and suspension systems; safety precautions to be followed when servicing steering and suspension systems; and proper tools, equipment and procedures for servicing and alignment. (80 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 171 Troubleshooting Techniques 2 Credits
Instructs students to recognize, isolate, troubleshoot, and diagnose mechanical and electrical problems and/or potential failures. (60 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 175 Motor Vehicle Inspection 2 Credits
Teaches State of Maine Motor Vehicle Inspection Laws and the proper procedures to test and inspect trucks, trailers and automobiles. (60 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATH 201 Shop Orientation and Safety: Heavy Equipment/Truck II 1 Credit
Continues to familiarize students with shop safety, regulations, liabilities and legalities as they pertain to the truck and heavy equipment industry. Identifies proper use of hazardous materials, shop equipment practices and procedures, and correct operation of trucks and heavy equipment in shop areas. (20 hr)

ATH 211 Shop Management: Heavy Equipment/Truck 2 Credits
Addresses the fundamentals of operating a fleet or dealer service facility. The course covers public relations, customer service, work and PM scheduling, repair orders, warranty claims, hiring and training practices, shop organization, tools and equipment, and the importance of coordinating with other departments. (60 hr) **Prerequisite: 600 hrs. of ATH or permission**

ATH 223 Area of Specialization: Heavy Equipment/Truck 2 Credits
Allows students to choose truck and heavy equipment specialties and to perform numerous tasks in order to become more efficient technicians. (60 hr) **Prerequisite: ATH 101 or ATH 201 or permission**

ATT 133 Basic Electrical Systems **3 Credits**
Provides students with the theory of electricity, Ohm's Law, and the skills needed to correctly use volt meters, amp meters, and millimeters. Students troubleshoot and diagnose electrical systems in a safe and systematic approach. (60 hr)
Prerequisite: ATA 101 or ATH 101 or permission

ATT 135 Advanced Electrical Systems **2 Credits**
Develops skills necessary for the use of advanced electrical and electronic testing equipment in testing and diagnosing electrical and electronic control systems on modern automobiles, trucks and heavy equipment. (60 hr)
Prerequisite: ATH 101, ATH 201, ATT 133 or permission

ATT 141 Heating and Air Conditioning **3 Credits**
Familiarizes students with the operation, safety procedures, diagnosis and service of automotive heating and air conditioning systems. The course includes recovery and reuse of R12 and 134A refrigerants and EPQ regulations. (80 hr)
Prerequisite: ATT 135 or ATH 101 or ATH 201 or permission

ATT 251 Automotive Basic Machine Shop Principles **2 credits**
Introductory course pertaining to basic machine shop principles and practices. Students will work with metric imperial units in using micrometers, vernier and electronic calipers, and precision layout tools. Students will also use conventional engine lathes, vertical milling machines, drilling machines, and a planer type reciprocating surface grinder. Other topics will include practical metallurgy, metal classification, oxy-acetylene operations, and bench work practices. (60 hr)

BCA 113 Computer Applications I **3 Credits**
This course develops basic computer skills with emphasis on formatting business documents using Microsoft Word and Excel. In word processing, students become proficient in document management, text editing, tables, styles, and a variety of document enhancements available in the software. In spreadsheet management, emphasis is placed on learning the fundamental concepts and commands necessary to take advantage of the capabilities of the software. Students create sophisticated documents that include formatting, using formulas and functions, graphic images, styles, shapes, text boxes, SmartArt, WordArt, and screenshots. Students will learn to create a workbook with multiple worksheets and perform file maintenance activities. In addition, students will create and customize charts in Excel. (3 lec)

BCA 114 Computer Applications II **3 Credits**
This course develops basic computer skills with emphasis on formatting business documents using Microsoft PowerPoint and Access. In PowerPoint, students become proficient in creating a visual presentation that will include transparencies, slides, photographs, and on-screen presentations using a variety of enhancements available in the software. In database management, emphasis is placed on learning the fundamental concepts and commands necessary to take advantage of the capabilities of the software. Students will learn to organize, store, maintain, retrieve, sort, and print all types of business data. (3 lec)

BCA 202 Integrated Software Applications 3 Credits
Information Processing Capstone Course: In this course, students will use 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. (3 lec) **Prerequisites: BCA 113**

BCT 151 Residential Construction I 7 Credits
Emphasizes methods and materials used in residential construction and covers building codes, floor framing systems, wall framing, types and layout of trusses, cornice systems, types of roof coverings, exterior doors, windows, siding, and exterior paint. Students apply their coursework through the construction of a residential building. 15-week course (3 lec, 14 lab)

BCT 152 Residential Construction II 7 Credits
Presents methods and materials used to finish interiors of buildings, including gypsum board, tile ceilings, suspended ceilings, wall paneling, paint, hardwood flooring, tile floors, wall-to-wall carpeting, interior doors and trim. Students apply the skills by completing the interior of a residential project. 15-week course (3 lec, 14 lab) prerequisite**: NCCER Core Curriculum, BCT 151, or permission**

BCT 201 Cooperative Education for Building Construction Technology 3 Credits
Provides students with work experience in the building construction trade. Following the second semester of program study, students work from mid-May through the third week of August in a full-time, salaried position with participating building construction businesses. BCT faculty assist and maintain contact with the students and employers during the co-op period. At the end of the period, the employer evaluates the student's professional development based on their work assignments and goals. **Prerequisites: Ten Hour OSHA Construction Safety Certificate, BCT 152 and DTG 124** (Thirteen weeks)

BCT 213 Stair Construction 1 Credit
Concentrates on the construction of basic and finish stairways. Students study stairway types, calculations, layout, materials and construction methods. Students apply these concepts by constructing a set of finish stairs complete with newel posts, balusters, and handrail. 4-week course (2 lec, 12 lab) **Prerequisite: BCT 151 or permission**

BCT 255 Commercial and Industrial Construction 4 Credits
Engages students in the fundamentals of building layout, elevation control and concrete work. Applies field practice with transits for building layout, control points, and establishing building elevations. Students also practice designing and testing concrete mixtures, form design and construction, reinforcement location, placement, finishing and curing concrete. 11-week course (2 lec, 12 lab) Prerequisite**: BCT 151 or permission**

BCT 264 Estimating **3 Credits**
Provides students with a background in construction documents and estimating materials and labor, including construction contracts, insurance, specifications, material take-off, and material and labor estimates. 15-week course (3 lec, 0 lab) **Prerequisites: BCT 152, DTG 124 and MAT 113 or permission**

BCT 272 Cabinetmaking and Millwork **5 Credits**
Teaches kitchen cabinet layout, parts of cabinets, types of doors and drawers, hardware, and different cabinet joints used in construction of cabinets. Students construct and install cabinets, including countertops. 15-week course (2 lec, 12 lab) **Prerequisites: BCT 151**

BCT 275 Residential Building Science **4 Credits**
Emphasizes the integration of a buildings component as a system designed to control energy use, indoor air quality and occupant comfort. Topics covered will include the history of energy use, energy-efficiency, building envelopes, lighting, cooling, and heating systems. Students will evaluate methods and materials used in building and remodeling for energy efficiency, comfort, health and safety. (3 lec, 2 lab) **Prerequisites: BCT 152, DTG 124 and MAT 113 or permission**

BCT 181 Basic Woodworking **7 Credits**
This course provides a comprehensive introduction to woodworking tools and equipment by examining the safe and skillful use of both hand and power tools, including their selection, purpose and maintenance. Designed to introduce the student to the safe and proper use of hand and layout tools used to construct basic woodworking joinery. Course emphasis will be the hands-on techniques necessary to produce several required wood joints and projects. (3 lec, 12 lab)

BCT 184 Fine Woodworking II **7 Credits**
This course provides a continuation of Fine Woodworking 1 offering a comprehensive presentation of woodworking tools and equipment. This course will foster the skillful use of hand and power tools, including their selection, purpose and associated maintenance. Designed to educate the student in the safe, proper techniques used to fabricate superior woodworking accomplishments. Course emphasis will include the hands-on techniques necessary to produce intricate wood joinery and undertake detail oriented projects. 15-week course (3 lec, 14 lab)

BIO 100 Concepts in Biology **4 Credits**
Introduces students to basic biology principles such as: molecular and cellular biology, genetics, biological diversity and ecology. The goal of this course is to increase student knowledge of the world surrounding them and give them a basis for making informed decisions and options on biological issues. Special emphasis will be placed on relating topics to current events. (The course would not be transferable as a prerequisite for advanced biological science at another institution, only as a general education course.) (3 lec, 2 lab)

BIO 105 Human Genetics **3 Credits**
Human Genetics is a basic introduction to mammalian genetics using humans and mice as model organisms due to their similar genetic pathways and

disorders. BIO 105 introduces you to basic genetics vocabulary and principles of inheritance, with the goal of enriching your understanding of genetics. Students will also be provided with the background needed to navigate through the ever-increasing genetic information appearing in the media. (3 lec)

BIO 109 Principles of Biology I **4 Credits**
Principles of Biology I **i**ntroduces the basic principles of molecular and cellular biology, genetics, evolution, biological diversity, and ecology. This course is the first of a two semester sequence of college biology designed to prepare the student for study at a four year institution in the fields of biology, medicine, agronomy, animal husbandry, or wildlife biology. The laboratory component of the course stresses laboratory safety and procedures and offers hands-on experiments designed to reinforce course topics. (3 lec, 2 lab) **Prerequisite: HS Biology and Algebra I, or equivalent**

BIO 115 Human Biology **4 Credits**
An integrated lecture-laboratory course introducing concepts in human biology. Topics include body systems, growth and development, human heredity and how the human organism interacts biologically with its environment. The course meets five hours per week, including two hours of lab. (3 lec, 2 lab)

BIO 121 Anatomy and Physiology I **3 Credits**
Offers an integrated approach to anatomy and physiology, beginning with the chemical basis of life, and including cells, tissues, the integumentary, reproductive, skeletal, muscular, and respiratory systems. (3 lec, 0 lab) **Prerequisite: High School Biology or permission. Co-requisite: BIO 124**

BIO 122 Anatomy and Physiology II **3 Credits**
Continues BIO 121, covering the nervous, endocrine, cardiovascular, lymphatic, immune, digestive and urinary systems. Emphasis is placed on relating structure to function. (3 lec, 0 lab) **Prerequisite: BIO 121 with a grade of C or better or equivalent. Co-requisite: BIO 126**

BIO 124 Anatomy and Physiology I Laboratory **1 Credit**
Reinforces concepts covered in **BIO 121, Anatomy and Physiology I**, through a hands-on approach to the study of living organisms. Methods include experiments in physiology, microscopic studies of cells and tissues, and the study of articulated and disarticulated skeletons. (0 lec, 2 lab) **Co-requisite: BIO 121 or permission**

BIO 126 Anatomy and Physiology II Laboratory **1 Credit**
Reinforces concepts studied in **BIO 122, Anatomy and Physiology II**, through the hands-on study of living organisms, including animal dissections, experiments in physiology, and microscopic examination of tissues. (0 lec, 2 lab) **Co-requisite: BIO 122 or permission**

BIO 209 Principles of Biology II **4 Credits**
Introduces functions (physiology) and structures (anatomy, morphology) of animals and plants stressing basic physiological processes and adaptations to the environment. Equal attention is given to plants and animals. This course is

the second of a two semester sequence of college biology designed to prepare the student for study at a four year institution in the fields of biology, medicine, agronomy, animal husbandry, or wildlife biology. The laboratory component of the course stresses laboratory safety and procedures and offers hands-on experiments designed to reinforce course topics. (3 lec, 2 lab) **Prerequisite: BIO 109 with a grade of C or better or equivalent**

BIO 216 General Microbiology 4 Credits
An integrated lecture-laboratory course concentrating on agents associated with human disease including bacteria, viruses, fungi and protozoa. Microbial control, epidemiology and immunology are also studied. Laboratory sessions focus on aseptic technique, slide preparations, bacterial culturing and identification of organisms. (2 lec, 4 lab) **Prerequisite: BIO 122 and BIO 126, or permission**

BIO 222 Pathophysiology 3 Credits
Focuses on understanding fundamental disease processes beginning with general concepts of disease and altered cell functioning. Also included are topics on inflammation, infection, neoplastic and fluid, electrolyte and acid-base imbalances. These concepts are applied to the study of disease processes using a systems-oriented approach. (3 lec) **Prerequisites: BIO 121 and BIO 122 with a grade of C or better**

BIO 251 Clinical Pharmacology 4 Credits
Discusses the essential concepts of clinical pharmacology and their application to safe medication administration in medical practice. Drug actions, therapeutic uses, and key adverse effects of major drug categories are examined. Knowledge of the essential concepts of clinical pharmacology and their application to medical practice is the foundation for this course. This course is designed to enhance the students' ability to provide care and educate patients; it builds upon their understanding of anatomy, physiology, pathophysiology, and the medical process. The major drug categories are discussed with an emphasis on their actions, therapeutic use, interactions, and key adverse effects. Medical responsibilities and accountability related to safe medication administration across the life span are emphasized. (4 lec, 0 lab) **Prerequisites: BIO 121, BIO 122, BIO 124, BIO 126**

BIO 272 Radiation Biology 2 Credits
Reviews the interaction of radiation within living systems, and radiation effects on molecules, cells, tissues and the body as a whole. Factors affecting biological response are presented, including somatic and genetic effects of radiation exposure. Radiation protection principles are presented including federal and state health and safety requirements; radiation safe practices for patients, personnel and the public; dose limits and personnel monitoring. (2 lec) **Prerequisite: BIO 122**

BMT 111 Introduction to Medical Terminology I 3 Credits
Enriches vocabulary through word analysis, with particular emphasis on medical terminology. Students learn the meanings of prefixes, suffixes, and root words. This course is especially recommended for nurses, laboratory personnel, medical secretaries, unit clerks, and others in the allied health sciences. (3 lec) *Same as MDT111.

BMT 112 Medical Terminology II **3 Credits**
Teaches medical terminology of anatomy, physiology and pathology in order to increase knowledge of body systems and related diseases. (3 lec) **Prerequisite: A grade of C of better in BMT 111**

BMT 121 Medical Law and Ethics **3 Credits**
Covers the study and application of medicolegal concepts and ethics in the medical profession. Understanding professional conduct and confidentiality will be emphasized. Principles of medical ethics and current issues will be discussed. The basic legal relationship between the healthcare provider and the patient will be covered. (3 lec)

BMT 202 Medical Office Procedures **3 Credits**
This course emphasizes essential skills required of the administrative medical assistant. The students will gain practical knowledge of appointment booking, office protocol, time management, telephone techniques, office equipment, mail services, references, medical filing and records management, correspondence, and travel and meeting arrangements. To prepare students for the ever-increasing use of technology in the medical office, this course places continued importance on the computerization of routine tasks and of communications. This course allows for the integrated application of office procedures, skills, and knowledge in the classroom through the use of projects and simulations. Students are introduced to MediSoft®, which is a practice management software application designed to simplify and streamline the way medical practices function. Students learn to perform the duties of the administrative medical assistant under realistic conditions and with realistic pressures that require them to organize their work and set priorities. (3 lec) **Prerequisites: BUA 105, BMT 111, BMT 112**

BMT 203 Coding **3 Credits**
In this course students will develop a basic understanding of procedural and diagnostic coding using CPT and ICD-10 CM. The focus will be on data analysis for billing and reimbursement. (3 lec) **Prerequisites: BMT 121, BMT 111, BMT 112, BIO 115**

BMT 206 Medical Billing **3 Credits**
Utilizing computer applications, this course will cover the flow of information in a medical office. Students will develop skills to initiate and input patient data using a computerized medical office program. This will include scheduling appointments, recording patient information, filing insurance claims, and managing accounts receivable. In addition, students will be able to process insurance claim forms adhering to legal restrictions. Topics will include requirements for managed care systems, Blue Cross/Blue Shield, Medicaid, Medicare, Workers Compensation, Disability, and third-party insurance. (3 lec) **Prerequisites: BMT 121, BMT 111, BMT 112, BIO 115**

BMT 207 Electronic Medical Record **1 Credit**
In this tutorial-based introductory course, students will develop a basic understanding of Centricity® Electronic Medical Record (EMR) software

application. Centricity® is a software program designed to interface with practice management systems in physician practices. Backed by GE Healthcare's over 20 years of experience, this EMR solution helps make the administration of a practice easier and more cost-effective. (3 lec) **Prerequisites: BMT 121, BMT 111, BMT 112, BIO 115**

BMT 211 Disease Processes for Medical Office Specialist 3 Credits
Introduces students to the effects of disease on the human body and how the body responds to disease. Focuses on prevention, etiology, signs and symptoms, diagnostic and treatment modalities and prognoses. Medical references are used extensively for research and verification. (3 lec)

BMT 213 Medical Terminology III 3 Credits
Continues **BMT 112, Medical Terminology II.** Units of study include pharmacology, oncology, radiology, surgery and mental illness. (3 lec) **Prerequisite: A grade of C or better in BMT 112**

BMT 221 Medical Transcription I 3 Credits
Introduces the healthcare record and medical documents. Transcription of basic medical dictation incorporating the English usage and machine transcription skills, medical knowledge, and proofreading and editing skills will be covered. Students must meet progressively demanding accuracy and productivity standards. (1 lec, 4 lab) **Prerequisites: BUA105, BCA113, BCA114, BMT111**

BMT 222 Medical Transcription II 2 Credits
Continues BMT 221. Students must transcribe advanced, original medical dictation, using advanced proofreading and editing skills, while meeting progressively demanding accuracy and productivity standards. (1 lec, 2 lab) **Prerequisites: BMT 112, BMT 211**

BMT 223 Medical Transcription III 2 Credits
Continues BMT 222. Students must transcribe documents based on subsections which are laid out by body system or medical specialty. Students will be using advanced, original medical dictation, and will need to use advanced proofreading and editing skills, while meeting progressively demanding accuracy and productivity standards (1 lec, 2 lab) **Pre-requisites: BMT 221, BMT 222**

BMT 241 Pharmacology for the Medical Office 3 Credits
Introduces the general concepts of pharmacology. Basic information about drug classification, drug side effects, drug interactions, and drug reactions is covered. A basic review of the body systems and how each is affected by drugs will be emphasized. (3 lec) **Prerequisites: BIO 115, BMT112**

BMT 261 Health Unit Coordinator 3 Credits
This course is designed to help prepare the student to perform the duties of a basic health care secretary. Content includes communications, basic terminology, transcription of physician orders, clerical functions, scheduling of personnel, supply and repair procurement. Clinical experience included. (3 lec) **Prerequisites: BMT111, BCA113, or permission.** Medical Malpractice Liability Insurance required; purchase when registering for class. *Same as MDT161.

BMT 281 Medical Transcription Externship **3 Credits**
Offers students opportunities for supervised work experiences in a medical transcription setting. This course combines classroom theory with on-the-job training. Must complete 240 hours of training to receive credit for this course. (0 lec, 1-3 lab) **Prerequisites: BMT 213, BMT 221, BMT 222**

BUA 101 Introduction to Business **3 Credits**
This course examines the role of business in American society; the interrelated activities through which business provides the goods and services essential to contemporary society; and the interrelationships between business and government, labor, and society at large. General areas of study center on the foundation of business, management of the enterprise, marketing activities, finance and financial services, and contemporary business problems and development. Topics include economic systems, forms of business ownership, small business and entrepreneurship, management theory, human relations, marketing, accounting, finance, stock market and regulatory factors. (3 lec)

BUA 105 Business Communications **3 Credits**
In this course students will strengthen their proofreading and editing skills needed for managing the accuracy and quality of document production. Students will develop language arts skills including grammar, spelling, and punctuation. This course also covers various types of business reports and communications with emphasis on preparation, collection of data, organization, style, and format. Emphasis is placed on appropriate formats for business communication including grammatical style, clarity, and conciseness of message. Students will begin creating a portfolio of learning/accomplishments. (3 lec) **Prerequisite: WR Accuplacer score ≥ 5.**

BUA 111 Accounting I **3 Credits**
Covers the fundamental principles and procedures of accounting including the voucher system and bank reconciliations, with emphasis on developing the technical procedures of the accounting cycle including journalizing, posting, adjusting entries, closing procedures, and preparing financial statements. (3 lec) **Prerequisite: AR Accuplacer score≥65; EA Accuplacer score ≥65**

BUA 112 Accounting II **3 Credits**
Continues the principles and procedures initiated in **BUA 111 Accounting I,** and includes current and long-term liabilities, corporations, inventory methods, depreciation, payroll accounting, and plant assets. (3 lec) **Prerequisite: BUA 111 with grade of C or better**

BUA 131 Business Law I **3 Credits**
Presents the nature of contracts including offer and acceptance, consideration, voidable contracts, unenforceable contracts, performance of contracts, rights of third parties, discharge of contracts and remedies for breach, and includes a section dealing with judicial procedure, torts, and administrative law. (3 lec) **Prerequisite: WP Accuplacer score ≥5 or completed ENG101 or ENG105**

BUA 132 Business Law II **3 Credits**
Surveys the creation of agencies, the employment relationship, laws and related areas of partnerships; the laws and management of corporations; and the rights of stockholders. Property laws are also introduced. (3 lec) **Prerequisite: WP Accuplacer score ≥ 5 or completed ENG101 or ENG105**

BUA 234 Credit and Finance Management **3 Credits**
Presents the field of credit including legality, the instruments of credit, credit systems, credit and collections, borrowing and investing, investment tools and their use, and financial problem-solving, using the financial analyst calculator. (3 lec) **Prerequisite: MAT117 or MAT119 with grade of C or better`**

BUA 241 Principles of Small Business Management **3 Credits**
Presents the fundamentals of small business management primarily to non-business majors, and includes such topics as business ownership, organization and management, marketing, personnel, finance, and legal and regulatory controls. (3 lec)

BUA 255 Principles of Insurance **3 Credits**
Provides a study of risks encountered by individuals and business firms. Various insurance contracts are reviewed. The analysis is from the consumers' point of view. (3 lec) **Prerequisite: BUA 131 or BUA 132**

BUA 263 Sales and Customer Relations **3 Credits**
Introduces the student to the basics of personal selling and the importance of positive customer relations. Explains the five P's of personal selling - preparation, prospecting, pre-approach, presentation, and post-sale activities. Emphasis will be placed on obtaining repeat sales through positive customer relations. (3 lec)

BUA 265 Leadership Development **3 Credits**
Designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. The course integrates readings from leadership cases studies, experiential exercises, and contemporary readings on leadership. (3 lec) **(Pending approval)**

BUA 271 Marketing Principles **3 Credits**
Introduces marketing as it relates to the economy and the policies and practices of marketing institutions. Course content includes an overview of marketing, social responsibilities, consumer behavior, organizational markets, market segmentation, product management, price-setting, market channels, promotion, international markets, research, and the marketing of services. (3 lec)

BUA 281 Cooperative Education for Business **3 Credits**
Offers students opportunities for supervised work experiences in business and/or non-profit organizations. This course combines classroom theory with on-the-job training and can be used as elective credit in the second year of study. (1-3 lab) **Prerequisite: GPA 2.75, completion of 15 credits hours in Business Management, completion of 30 credit hours total, and permission.**

BUA 291 Principles of Management and Organization **3 Credits**
Examines the process of management by emphasizing the concepts and techniques of planning, organizing, and controlling functions. Also focuses on contemporary regulatory environment issues for managers. (3 lec) **Prerequisite: BUA 131**

BUS 165 Business Math Procedures **3 Credits**
Develops math skills needed to understand the procedures and policies of business transactions including: bank reconciliation, depreciation systems, simple interest, payroll taxes and procedures, inventory, turnover, and overhead, stocks and bonds, compound interest, and sales, property and income taxes. (3 lec) **Prerequisite: Appropriate scores on Accuplacer**

CAD 101 Introduction to CADD **3 Credits**
Introduces Computer Aided Drafting and Design through a combination of lecture, hands-on exercises, and drawing problems. While this course is designed for students with little previous computer or drafting experience, being familiar with a Windows operating system and basic file management would be beneficial. (2 lec, 2 lab)

CAD 102 Intermediate CADD **3 Credits**
Builds upon the skills acquired in CAD 101. This course covers more advanced drawing, editing, viewing, and dimensioning commands. Other CADD topics include paper space, xrefs, attributes, introduction to Autolisp, and exploration of CADD on the Internet. A focus on productivity and accuracy will be implemented throughout the class. (2 lec, 2 lab) **Prerequisite: CAD 101 with a grade of C or better**

CAD 111 Engineering Drawing and Design **3 Credits**
An introduction to the equipment and procedures used in board drafting and print reading. Addresses drawing board standards, sketching, orthographic projection, auxiliary and sectional views. Covers the fundamentals of dimensioning, detail assembly and isometric projection as they relate to manufacturing technologies. Also covered are blueprints for manufacturing and the symbols used to convey information, and the fundamentals of manufacturing materials and processes. (2 lec, 2 lab)

CAD 115 Architecture Drawing & Design **3 Credits**
Introduces architectural drafting with the use of the Architectural desktop program. Experience will be obtained through lecture, hands-on exercises, and drawing. Problems will be designed around the building industry. Basic to advanced procedures will be explored with walls, windows and doors, curtain walls, roofs, slabs, structural members, spaces, elevations, and more. (2 lec, 2 lab) **Prerequisite: CAD 101 with a grade of C or better**

CAD 128 Residential/Commercial Construction Theory and Design **3 Credits**
Four guidelines are followed with each subject material: design, building procedures, materials, and blueprint reading. The subjects covered will include: foundations, floors, walls/elevations, electrical, plumbing, and roofs for both

residential and commercial. Other areas covered will include heavy timber frame construction, welding and kitchens. (2 lec, 2 lab)

CAD 130 Mechanical Modeling and Design **3 Credits**
Introduces Computer Aided Parametric Modeling and Design through a combination of lecture, hands-on exercises and drawing problems. Students will use Autodesk Inventor software to model and design mechanical parts and assemblies. Welding and Sheet Metal drawings will also be introduced. While this course is designed for students with little previous computer or drafting experience, being familiar with a Windows operating system and basic file management would be beneficial. (2 lec, 2 lab)

CAD 203 3D Civil CADD **3 Credits**
The student will be introduced to Computer Aided Drafting and Design through the use of Autodesk Civil 3D. Students will use the program to create detailed civil drafting and mapping documents. Topics to be covered are point and line creation, surfaces site and parcels layout, alignments, profile views and profiles, assemblies and corridors, cross-sections and volumes, cut and fill, and pipe networks. (2 lec, 2 lab) **Prerequisite: CAD 121 or CAD 101**

CAD 222 Building Information Modeling **3 Credits**
Students will learn to communicate using graphic information as a means of a language through industry standard drawings. Students will learn about commercial construction by understanding the site, structural, and architectural elements of building construction. Drawings will be developed for proposals, interviews, conceptual and schematic design, and formal documentation. This class will introduce students to a higher level of cognitive skill by drawing on previous classes and experience. (2 lec, 2 lab) **Prerequisite: CAD 102 with a grade of C or better**

CAD 229 Career Experience Lab **4 Credits**
Provides the student with the employment experience that is typical for the CADD technician in the industry. It is designed to present the understanding of what working in a drafting/design office would entail. Collaborative projects with local firms, government, utilities, or other employers ensure a significant experience. (0 lec, 8 lab) **Prerequisite: CAD 222 with a grade of C or better**

CAD 234 Visualization for Architecture, Engineering & Construction **3 Credits**
Students will use AutoCAD and 3D Studio VIZ to create advanced 3D models. Students will use the software to create still images and animations for visualization of models. Using digital photography, students will combine models with real world images. Additional software will be used when necessary. (2 lec, 2 lab) **Prerequisite: CAD 203 with a grade of C or better**

CET 100 Introduction to Civil Engineering **1 Credit**
Provides an introductory study of the civil engineering technology. Topics include the Civil Engineering Technology Program, project life cycle, estimating, scheduling, design, contacting, and ethics. (1 lec)

CET 101 Plane Surveying **3 Credits**
Studies surveying instruments and their use in the measurement of angles, distances, and elevations. Also includes mathematics, computational methods, adjustments and measurement analysis used in plane surveying. (2 lec, 2 lab) **Pre or Co-requisite: MAT120 or MAT123**

CET 110 Materials **3 Credits**
Studies the structure, properties, and testing of engineering materials and their use in constructed facilities. Includes metals, woods, concrete, bituminous mixtures, plastics, insulation, adhesives and corrosion of materials. Engineering design is introduced by readings and discussions on creativity, the design process and the concepts of marginal economic analysis, probability of failure and safety factors. Design problems include design of concrete mixtures and insulating systems to satisfy specific realistic situations taking into account uncertainty, safety, economic factors and intangibles, as well as technical considerations. (3 lec, 0 lab) **Pre- or Co-requisite: MAT 119 or MAT 123**

CET 111 Materials Laboratory **1 Credit**
Evaluates material performance under applied loads for engineering applications. Physical properties of concrete, metals, plastics, and wood. Exercises include study of the variability of materials, construction of probability density functions from test data and computation of the probability of failure (2 lab) **Pre- or Co-requisite: CET 110**

CET 121 Civil CADD **3 Credits**
Introduces Computer Aided Drafting and Design through the use of Autodesk Land Desktop and Civil Design. Basic AutoCAD commands are studied such as those used in drawing, editing, viewing, and dimensioning. Other topics include paper space, xrefs, attributes, projects, and project point databases. Instruction includes lecture, hands-on exercises and drawing problems. (2 lec, 2 lab)

CET 124 Construction Estimating **3 Credits**
Introduces the estimating and bidding processes for construction projects. Topics include cost estimating for residential, commercial, highway and industrial construction projects. Manual, computer assisted and estimating software is utilized to prepare construction cost estimates, bids and project budgets. (3 lec)
Prerequisite: CET110; or permission

CET 201 Cooperative Education for Civil Engineering Technology 3 Credits
Provides the student with work experience in civil engineering areas such as construction, materials testing, and/or transportation. Following the second semester, students work from mid-May to November 1 in a full-time salaried position with participating civil engineering firms. CET faculty assist and maintain contact with the student and employer during the co-op period. At the end of the co-op period, the employer evaluates the student's professional development based on their work assignment. (An abbreviated third semester of CET courses follows the co-op period, running from November 1 to the end of the fall semester.) **Prerequisite: CET 101, CET 110, CET 111, CET 121, and CET 214; or permission.**

CET 202 Construction Surveying **3 Credits**
Studies surveying procedures in construction. Includes volume computations, stakeout, grade, layout site mapping, profile, and cross-sections. (1 lec, 4 lab)
Pre or Co-requisite: CET101

CET 211 Statics and Strength of Materials **4 Credits**
Considers analytical solutions of force systems. Load, shear, moment and deflection values are solved for in beams, trusses, and frames under static loading. Study of stresses and strains that occur as structural members are subjected to shearing, tensile, compressive and flexural forces. (3 lec, 2 lab)
Prerequisite: CET110 and MAT120 or MAT123.

CET 212 Structural Design **4 Credits**
Studies the design of wood beams and columns, steel beams, columns and tension members, and reinforced concrete beams. Covers building code requirements for loads including dead, live, snow, wind and earthquake. (3 lec, 2 lab) **Prerequisite: CET 211**

CET 214 Soils Mechanics **4 Credits**
Introduces the physical properties of soil important to the construction industry. Includes standard ASTM tests, classification systems, drainage, frost action, slope stability, and shallow foundations. (3 lec, 2 lab)
Pre or Co-requisite: MAT120 or MAT123

CET 221 3D Civil Cadd **3 Credits**
The student will be introduced to Computer Aided Drafting and Design through the use of Autodesk Civil 3D. Students will use the program to create detail civil drafting and mapping documents. Topics to be covered are point and line creation, surfaces site and parcels layout, alignments, profile views and profiles, assemblies and corridors, cross-sections and volumes, cut and fill, and pipe networks. (2 lec, 2 lab) **Prerequisite: CET 121 or CAD 101**

CHE 100 Chemistry for Everyday Living **4 Credits**
Introduces, non-mathematically, the basic principles of chemistry, with an emphasis on relevance to everyday life. Topics will include alternative energy sources such as nuclear chemistry, air and water pollution, consumer products, plastics, and synthetic fibers. Laboratory correlates with lecture material. Designed for non-science majors. (3 lec, 2 lab) **Prerequisite: H.S. Algebra I or equivalent, or Co-requisite: LAM009**

CHE 103 Chemistry for Emergency Responders **3 credits**
This survey, non-laboratory class, is designed to acquaint students with the broad principles of chemistry as they relate to hazards in the emergency response field. This survey includes basic chemistry terminology, structure of matter, atomic bonding, molecular theory of matter, chemical and physical change, and the general states of matter (gases, liquids and solids). Discussion of more common elements, compounds they form, and the resulting hazards completes this course. (3 lec, 0 lab)

CHE 113 Chemistry I **3 Credits**
Presents the general principles of chemistry including: the nature of matter, methods of measurement, definitions of atoms, molecules, and ions, stoichiometry of chemical formulas and equations, aqueous solutions and reactions, thermochemistry, electronic structure of atoms, periodic properties of elements, chemical bonding, molecular geometry, gasses and gas laws. (3 lec, 0 lab) **Prerequisite: High School Algebra II and HS Chemistry or equivalents.**

CHE 114 Chemistry II **3 Credits**
Introduces organic chemistry and biochemistry. Emphasis is on functional groups and reactions, with the latter part of the semester devoted to applications in biological organisms. (3 lec, 0 lab) **Prerequisite: CHE 113 and CHE 115**

CHE 115 Chemistry I Laboratory **1 Credit**
Applies concepts appropriate to **CHE 113, Chemistry I,** with emphasis on safety and record keeping, and the acquisition of basic experimental skills, techniques, and concepts in chemistry. Coordinated to the topics discussed in lecture. (0 lec, 2 lab) **Co-requisite: CHE 113**

CHE 116 Chemistry II Laboratory **1 Credit**
Applies concepts appropriate to **CHE114, Chemistry II**, including organic separations, functional group tests, and synthesis and analysis of organic compounds. (0 lec, 2 lab) **Co-requisite: CHE 114**

COL 103 Applications of Learning Theory **3 Credits**
Prepares students for the rigors of college life. This course is an introduction to the academic and interpersonal aspects of the college experience and prepares students to become independent learners. (3 lec)

COL 111 Personal Financial Planning **3 Credits**
Utilizes real-life examples. Provides easy-to-grasp tools to recognize, avoid, and/or conquer financial pitfalls to achieve financial well-being. (3 lec)

CST 101 Introduction to College Learning **1 Credit**
Provides the student with skills and knowledge necessary for a successful community college experience. Among the topics discussed are: college culture, time management, stress management, study skills, note-taking, test-taking, GPA, learning styles, teaching styles, careers, and EMCC structure. (2 weeks: 7.5 lec/discussion per week) **Prerequisite: Admission to CST, CRT, or permission.**

CST 107 Introduction to Computer Technology **2 Credits**
Introduces students to computers, networks, and information fluency. Basic computer skills are addressed with primary emphasis on applications of the computer as a medium for representing, storing, manipulating, and communicating different forms of information. The processing of audio, video, text, and various media forms will be studied. (6 weeks: 6 lec., 1.5 lab) **Prerequisite: Admission to CST, CRT, or permission.**

CST 116 Telecommunications 4 Credits
Provides an overview of various computer communications technologies. The principles of modulation, fiber optics, multiplexing, and network cabling are discussed. Topics include: electrical fundamentals, voice, wireless, and data communications, wide area networks, broadband technologies, Internet and converged networks. (15 weeks. 3 lec, 4.5 lab) **Prerequisite: Admission to CST, CRT, or permission.**

CST 117 Web Page Design for Computer Technicians 2 Credits
Provides computer technology students with an understanding of basic design principles for constructing effective web sites. Particular attention is paid to the design process, usability and the combining of technical skills and design skills. This is not a graphic design course, although some graphic design topics are included. This is not an HTML or XHTML programming course; web authorizing software will be used. Anyone can make a web page, but very few people can construct an effective web site. This course was designed to help computer technicians learn to produce effective web pages and sites. (7 weeks: 3.75 hrs. lec, 3.75 hrs. lab) **Prerequisite: Admission to CST, CRT, or permission.**

CST 124 An Introduction to Linux 3 Credits
Provides students with a comprehensive overview of the Linux operating system in a personal computer environment. Topics include Linux shells and shell commands, the structure of the Linux file system, text editors, managing files and directories, file system administration, command input and output redirection and piping, shell scripting, and process management. (8 weeks. 6 lec, 1.5 lab) **Prerequisite: Admission to CST, CRT, or permission**

CST 126 Programming with Visual Basic.NET 3 Credits
This course uses Visual Basic.NET, an object-oriented/event-driven language, to teach programming concepts. The student will learn the Visual Basic.NET tools to create applications that conform to Windows standards. Topics include an introduction to the Visual Basic.NET environment, creating a user interface, variables and constants, performing calculations, decision making structures, repetition structures, string manipulation, and sub and function procedures. By the end of the course the student will be able to design, code, and debug simple applications. (8 weeks. 3.75 lec, 3.75 lab) **Prerequisite: Admission to CST, CRT, or permission**

CST 131 PC Hardware and Operating Systems 3 Credits
This course covers the functional components of the personal computer (PC) and its common peripherals, and an introduction to the Windows operating system. Hardware topics include the microprocessor, power supplies, bus structure, interrupts, DMA, memory, storage devices, serial and parallel port technologies, video displays, and modems. The laboratory component of this course is geared toward increasing student proficiency in setting up and servicing PC hardware and operating systems through the use of hands-on exercises. Diagnostic tools and troubleshooting techniques are emphasized throughout. (5.5 lec, 2 lab) **Prerequisite: Admission to CST, CRT, or permission**

CST 211 Network Architecture I **3 Credits**
This course is a theory course in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, topologies, access methods, and networking hardware and software. (5 weeks. 5 lec, 10 lab) **Prerequisites: All first-year CST courses or permission**

CST 212 Network Architecture II **3 Credits**
Continues CST211, Network Architecture I, extends the student's knowledge and practical experience with Wide Area Networks (WANs), Integrated Services Data Networks (ISDN), ATM and Point-to-Point Protocols (PPP) and Frame Relay design, configuration and maintenance, with special emphasis on design techniques and network analysis. (5 weeks. 5 lec, 10 lab) **Prerequisite: CST 211**

CST 221 Network Security **3 Credits**
Studies the fundamentals and implementation of network security including secure access methods and vulnerabilities in network protocols, operating systems, and network applications. (5 weeks. 5 lec, 10 lab) **Prerequisites: All first year CST courses or permission**

CST 224 Wireless Networking **2 Credits**
This course covers both theoretical issues related to wireless networking and practical systems for both wireless data networks and cellular wireless telecommunication systems. Students will also work on a project that addresses some recent research issues in wireless and mobile networking. (5 weeks. 3 lec, 12 lab) **Co-requisite: CST 212 or permission**

CST 232 Server Operating Systems **3 credits**
This course will introduce students to server operating systems. The basics of server operating systems will be presented, including installation and configuration, client management, configuring and managing print services, managing data storage, managing network services, and creating a reliable server environment. (5 weeks. 10 lec, 5 lab) **Prerequisites: CST 212**

CST 244 Introduction to Computer Forensics and Investigations **3 Credits**
Introduces students to the fundamentals of computer forensic technology. Emphasis will be placed on identifying the threats to, and vulnerabilities of, computer systems and how to minimize them. (5 weeks. 5 lec, 10 lab) **Prerequisite: CST 211 or permission**

CUL 112 Culinary Skills Development **3 Credits**
Engages students in discussion of such culinary topics as menu development, tool and equipment identification and familiarization, and the history of professional cooking. Students will compose a professional portfolio, which can be helpful in garnering an externship of their choice. Other course projects include the development of menus and recipes, including equivalents, conversions, and food costing. (3 lec)

CUL 124 Culinary Arts I **6 Credits**
Focuses on the development of the fundamental skills necessary to work successfully in a professional kitchen. Product and equipment identification and usage is practiced and discussed. Areas of concentration include cold foods, stocks, soups and sauces, basic cooking methods, and an introduction to basic bread and dessert making. Students will compose a professional portfolio, practice basic foodservice mathematics, and practice menu balance and development. (4 lec, 3 lab)

CUL 125 Culinary Arts II **6 Credits**
Builds upon the components introduced in Culinary Arts I. Students develop and practice more advanced techniques of professional cooking. American Regional Cuisine will be studied and practiced throughout the semester. Catering and healthy cuisine will be an integral part of the course. Students will participate in the execution of special events, as well as selected in-house competitions. (2 lec, 4 lab) **Prerequisite: CUL 112, CUL 124, CUL 131**

CUL 131 Servsafe Sanitation **3 Credits**
Addresses the principles of food microbiology, important foodborne diseases, standards that are enforced by regulatory agencies and applied measures for the prevention of foodborne diseases and other microbiological problems. HACCP systems will be discussed. Upon successful completion of a comprehensive exam, students will be ServSafe certified by the Educational Foundation of the National Restaurant Association. (3 lec)

CUL 141 Food Service Management **3 Credits**
Explores the basic principles of food service management by defining basic technical skills in the areas of organizing, directing, staffing, menu planning and pricing. This course provides a foundation of knowledge and attitudes required for effective kitchen management. Upon successful completion of a final exam, students will be awarded a certificate by the nationally recognized Educational Institute of the American Hotel and Motel Association. (3 lec - 3 contact hours)

CUL 214 Advanced Culinary Skills **3 Credits**
Develops both advanced culinary knowledge and technique. Advanced garde manger production, mixology and alcohol awareness, as well as the selection and service of wines are part of this course. Guest demonstrations, lectures and practice in specialized areas of culinary arts such as ice sculpting and tallow are examples of the specialty areas both discussed and practiced. Students will be introduced to the food service industry as well as related industries in a more global realm. (3 lec) **Prerequisites: CUL 125, CUL 141, CUL 215**

CUL 215 Culinary Externship **3 Credits**
A 240-hour paid externship begins after the completion of the first academic year. Students explore a variety of career paths while working in the field. Students will find their own externship employment subject to approval by the instructor. A portfolio will be required to fulfill the academic requirements of this course. (240 hours) **Prerequisites: CUL 125, CUL 141**

CUL 218 Classical European Pastry Arts **3 Credits**
Students prepare classical European pastry items. Fundamental as well as specialized technique will be practiced and reinforced through lecture, demonstration and practice. Students will prepare a wide variety of desserts including old world and new world examples. (3 lec, 2 lab) **Prerequisites: CUL 125, CUL 215**

CUL 230 Regional Italian Cuisine **3 Credits**
From Piedmont in the north to Sardinia in the far south, no one area of the world encapsulates quite as much diversity in food styles as Italy. In this advanced culinary course, students are introduced to the culture, cuisine and unique methods of food preparation that make Italian cuisine one of the most popular in the world. Students will prepare and sample foods that range from the well-known to the somewhat exotic. Italian emphasis on freshness, quality, and health benefits of the Mediterranean diet will be emphasized throughout the course. (3 lab) **Prerequisite: Instructor permission**

CUL 262 Classical French Cuisine **5 Credits**
Introduces students to the cuisine and culture of the classical and provincial regions of France. Students learn French cooking methods, theory, and culinary terminology. Students work in the traditional team systems that French table service dictates. Tableside cookery will be discussed and practiced throughout the semester. Practical experience will be gained through the operation of the college's in-house restaurant. Kitchen and dining room management skills will be presented and practiced daily. (3 lec, 10 kitchen - 13 contact hours) **Prerequisites: CUL 125, CUL 215**

CUL 264 International Cuisine **5 Credits**
Offers students a culinary adventure that may include classical cuisines of Italy, Greece, Austria, and Spain. Other cuisines might include Thailand, China, the Caribbean and more. Students are exposed to the techniques involved in the preparation of items such as tapas, osso bucco, and pad Thai. Students research a selected area of foreign cuisine. Practical experience will be gained through the operation of the college's in-house restaurant. The 'front-of-the-house' facet will allow students to expand upon service methods and dining room management skills learned in prior courses. Additional kitchen management procedures will be discussed and practiced as well including inventory management, facilities management, and food ordering. (3 lec, 10 kitchen - 13 contact hours) **Prerequisites: CUL 262**

DGD 101 Introduction to Digital Photography **3 Credits**
This course provides an overview of processing digital media which include text, audio, pictorial data and video. It introduces various processing techniques and standards, and presents some applications. (2 lec, 2 lab)

DGD 113 Introduction to Photoshop **3 Credits**
This class is designed to give students the acquisition of skills necessary to help build a basic foundation in digital imaging. Application of these skills will be reinforced by applying the knowledge gained in class with real world exercises producing a meaningful outcome. Upon completion of this course, students will

be able to use Photoshop in a variety of areas as related to the graphics industry. Students will use Photoshop to create, manipulate, edit, and enhance digital photographs. The student will be encouraged to solve problems on their own, using textbooks and reference material. (2 lec, 2 lab)

DGD 114 Photoshop for Photographers 3 Credits
Explores the techniques and applications of acquiring, manipulating and outputting digitized photographic images utilizing Adobe Photoshop CS4® as it directly relates to the digital photographer. Technical skills for digital photography will be covered including post-image capture processing, photo manipulation, basic color management, photo restoration, and photographic printing. (2 lec, 2 lab) **Prerequisites: DGD 101 and DGD 113**

DGD 121 Introduction to Typography 3 Credits
Course covers understanding type in graphic design applications. Students will use type as a design element in publications, posters and promotional materials. Typographic terminology and proofreading procedures and symbols will be used to evaluate, complete and discuss relevant problems in typography. Development of critical thinking skills as they apply to typography in graphic design will be emphasized. The course will also cover an historic overview of typography and the evolution to current technology.(2 lec, 2 lab)

DGD 131 Introduction to Page Layout & Design 3 Credits
Covers understanding page design using graphic design applications. Adobe In-Design software will be used to design publications, posters and promotional materials. Layout software, terminology, procedures and symbols will be used to complete and critique relevant problems in page design. Development of critical thinking skills and analysis, as they apply to graphic design will be emphasized. Introduction to Page Layout will also cover an historic overview of print processes and the evolution to current technology. (2 lec, 2 lab)

DGD 201 Graphic Web Design 3 Credits
Presents the principles for planning, designing and executing attractive yet informative web pages and web sites. This course explores factors that affect web layout and design such as browser choice, screen-resolution, navigation, connection speed, typography, graphics and color as well as incorporating these elements into the fundamentals of building a web site. Adobe Dreamweaver CS4®, Adobe Flash CS4® and Adobe Photoshop CS4® are used in this course. (2 lec, 2 lab) **Prerequisite: DGD 113**

DGD 220 Digital Illustration 3 Credits
This course will cover digital illustration methods through the application of two-dimensional vector and pixel-oriented imagery (raster). Students will acquire hands-on experience with vector illustration, focusing on but not limited to, the pen tool, direction selection tool, gradients, masking, filters/effects, transparencies and pathfinder. Fine-tuning anchor points, shapes and Bezier handles along with color theory will be addressed. This course uses Adobe Illustrator CS4® and Adobe Photoshop CS4®. (2 lec, 2 lab) **Prerequisite: DGD 113**

DGD 222 3D Modeling and Animation **3 Credits**
This course will provide the student with the tools and techniques of the industry leading software 3Ds MAX. Students will develop a firm foundation of the software by working on instructor-led projects throughout the semester. The main skills the student will acquire during this course will be creating models, creating materials, creating lighting, creating renderings, creating animations, and creating outputs. (2 lec, 2 lab) **Prerequisite: DGD 113**

DGD 230 Professional Business Practices **4 Credits**
This course provides the student with the employment experience that is typical for the Digital Graphic Design technician in the industry. It is designed to present the understanding of what working in a design office would entail. Collaborative projects (when available) with local firms, government, utilities, or other employers ensure a significant work experience. This class will also give the student the opportunity to develop a portfolio for job interviews, or application to other institutions of learning. The student will be required to meet with the instructor on a weekly basis to discuss the status of the portfolio and to go over new assignments for supplementing the portfolio. The student will be using various software in the development of the portfolio. It is the responsibility of the student to learn or brush up their skills in order to use this software. (0 lec, 6 lab) **Prerequisite: DGD 114**

DGD 232 Advanced Digital Graphics **3 Credits**
This course will introduce students to advanced topic in Digital Graphic Design through the use of various software and hardware. This class will focus on the main graphic principles of components, composition, and concepts. Students will be encouraged to solve problems on their own as well as in teams. Students will learn the digital graphics workflow, utilizing the 3C principles and the appropriate software and hardware. (2 lec, 2 lab) **Prerequisite: DGD 114**

DTG 121 Architectural Drafting I **3 Credits**
Introduces the equipment and procedures used in board drafting, as well as an introduction to print reading. Emphasis is placed on residential construction. Areas to be covered include site plans, foundation plans, floor plans, elevations, cross-sections, and kitchen layouts. (2 lec, 2 lab)

DTG 124 Architectural Drafting II **3 Credits**
A continuation of DTC121 Architectural Drafting I with the reading of blueprints and drafting for residential homes. Other areas covered will be site plans. Additional attention will be given to the reading ad drafting of commercial drawing and heavy timber frame construction. (2 lec, 2 lab).

DTG 173 HVAC Print Reading **3 Credits**
Introduces drafting, CADD and print reading as related to the HVAC Industry. Using hands on exercises, this course covers basic drafting conventions and symbols as currently used by the HVAC Industry. Both conventional drawing (using paper and pencil), and computer aided drafting (using AutoCad), are introduced, as well as their application for commercial construction. (2 lec, 2 lab)

DTG 223 Architectural Drafting III **3 Credits**
Introduces computer aided drafting. Students are introduced to basic drawings and editing commands using industry standard AutoCAD software. Methods and techniques used in DTG122 are encouraged through hands-on exercises and drawing problems. (2 lec, 2 lab) **Prerequisite: DTG124**

DTG 291 Special Topics in Computer Aided Drafting **3 Credits**
Focuses on a different topic each time it is offered. Can be taken more than once.

ECE 110 Child and Adolescent Development **3 Credits**
Studies stages of development from prenatal periods through adolescence. Theories of child development and the learning process will be introduced. The effects of environment and the adult's role in supporting development and learning will be explored. Physical, cognitive, and social/emotional domains of development will be emphasized. (15-week course; 3 lec) *ECE and PED students must achieve a grade of C or better to pass the course.*

ECE 116 Early Literacy Development **3 Credits**
Presents children's literature from the perspective of language development. Examines various forms of literacy and offers methods for choosing appropriate literacy experiences for young children. (3 lec) **Co-requisite: ECE 110 or permission**

ECE 117 Observing and Recording in the Field **3 Credits**
Explores methods of observing, recording, and assessing children's development and learning. Skills acquired as a result of this course will provide the students with the needed information to assess development and plan activities and experiences to individualize learning. Legal and ethical practices and confidentiality issues will also be discussed. (2 lec, 1 practicum). *A grade of C or better must be achieved to pass. Open only to students enrolled in the ECE, PED, or LS – Education Track programs.* **Prerequisite: ECE 110 or permission**

ECE 127 Cognitive and Affective Development **3 Credits**
Theoretical aspects of cognitive and affective development will be studied with regard to the whole child. Experiences that promote learning, social relationships, self-awareness and moral development will be explored. (3 lec) **Prerequisite: ECE 110 or permission**

ECE 131 Infant/Toddler Curriculum **3 Credits**
Explores infant and toddler curriculum frameworks and methods. Students will review growth and development of these two age groups with special emphasis placed on the importance of relationships and bonding with caregivers. Planning developmentally appropriate curriculum that makes use of effective healthy and safe routines and environments will be taught. Students will practice writing learning experience plans (individual and group) based on state standards. How to support and partner with parents will be stressed in this course. (3 lec,) **Prerequisite: ECE 110 or permission**

ECE 216 Survey of Exceptionalities **3 Credits**
Studies individuals with exceptionalities, birth to age 21. Laws that impact persons with exceptionalities are reviewed. The process of screening, pre-referral and referral are discussed. Each category of exceptionalities, as defined by IDEA, is overviewed with an emphasis on identification, understanding of basic features and appropriate accommodations. Inclusionary and family-centered practices are emphasized. (3 lec.) **Prerequisite: ECE 110 or permission**

ECE 220 Curriculum for Young Children I **3 Credits**
Teaches design of developmentally appropriate curriculum for young children from birth to age eight. Emphasis is on the various content areas and how to plan appropriate programs and environments such as learning centers, play areas, and outdoor spaces. Students will develop an understanding and awareness of planning and designing programs that embrace diversity. An overview of various curriculum models will be introduced. (3 lec) **Prerequisite: ECE 110, or permission**

ECE 221 Curriculum for Young Children II **3 Credits**
Explores developmentally and individually appropriate curriculum using a frame-work that includes the philosophy, goals and objectives, physical environment, teacher's role and parent's role in designing curriculum for young children birth to eight years. Students will explore various methods and techniques for supporting development and learning for children with exceptionalities. Specific early childhood curriculum models will be reviewed in depth and compared to other curriculum models. (3 lec) **Prerequisite: ECE 220 or permission**

ECE 229 Early Childhood Professions **3 Credits**
Overviews the early childhood profession and the components necessary to begin and run an early care and education program. The following topics are included: mission statements, program development, professional development, financial issues in early childhood, component management, parent communication and community relations. Emphasis is on operating quality programs and effective supervision. (3 lec) **Prerequisite: ECE 117 or permission**

ECE 232 Field Placement II **4 Credits**
Expands on the competencies acquired in ECE 117, Observing and Recording in the Field, by allowing students to further develop skills and strategies to effectively plan and implement developmentally appropriate experiences for young children in an approved early childhood environment. Experiences will provide an opportunity for students to assume increased responsibility for supporting children's development in all domains. (2 lec, 2 practicum). *Must have a grade of C or better to pass this course. Open only to matriculated students in ECE.* **Prerequisite: ECE 117**

ECE 233 Field Placement III **6 Credits**
Expands on the competencies acquired in ECE 232, Field Placement II, by focusing on the skills needed to work as part of a teaching team and transform knowledge of child development into developmentally appropriate curriculum

planning. Opportunities to gain experiences by communicating effectively with parents, staff and children in an approved early childhood environment will be provided. Increased responsibility for all aspects of teaching and leading children including handling transitions, behavior management and planning curriculum will be emphasized. (2 lec, 4 practicum) *Must have a grade of C or better to pass this course. Open only to matriculated students in ECE.* **Prerequisite: ECE 232**

ECO 200 Money and Life–The Economic History of the Modern World 3 Credits
Introduces economic thinking by revisiting the historical causes for today's predominant economic structure: market-based society. Starting with Greek and Roman social conditions and moving on through the Dark Ages and the Renaissance, into the Industrial Revolution and Great Depression, and beyond the post-WWII expansion and into the Information Age, students connect historical events with economic thinking and theories. (3 lec)

ECO 221 Introduction to Microeconomics 3 Credits
Course provides an overview of the principles of microeconomics and their use in understanding, critique, and analysis of economic issues. Topics emphasized include the economic decision-making of individuals and firms; markets and the price mechanism; market structures; uncertainty, control of resources, and income; market failures; and the role of government in markets. (3 lec)

ECO 222 Introduction to Macroeconomics 3 Credits
Course provides an overview of the principles of macroeconomics and their use in understanding, critique, and analysis of economic issues. Topics emphasized include the international trade, aggregate supply and demand, national income and accounting, the overall functioning of an economy, the monetary system, unemployment, inflation, monetary and fiscal policy, and government intervention in the economy, as well as numerous contemporary economic issues. (3 lec.)

EDB 202 Introduction to Education – Schools, Students and Society3 Credits
This course provides an overview of the field of education in the United States. Identifies the roles and responsibilities of students, schools and society and the relationship to the educational system. Looks at the various influences that affect education including political, economic, social, academic and ethical. Examines the diverse needs of students and their families while working as part of a collaborative team. (3 lec) **Writing intensive course**. **Co-requisite with ENG 101.**

EDB 204 The Teaching Process 3 Credits
Examines instructional planning and lesson design, grouping, classroom environment, management strategies and assessment. Reflective practice, responsive teaching and learning will be emphasized. (3 lec) **Co-requisite with PED 233.**

EDB 221 Educational Psychology 3 Credits
Studies human development, learning cognition and teaching. An emphasis will be on the theories and research and their application to educational settings. (3 lec) **Prerequisite: PSY 101 or permission.**

EDB 231 Behavioral Health Professional **3 Credits**
Designed to give students the competencies to provide in-home services to children and families with developmental disabilities. Principles of behavior, trauma, treatment planning and family functions will be emphasized. Instructional strategies for teaching children behavioral skills and utilizing community resources to assist children and families will be included. First Aid and CPR certificate level instruction is delivered within the course. Students who complete the course with a C or better will earn a Behavioral Health Professional certificate. (3 lec)

EDB 241 Peer Education **1 Credit**
The Peer Education Class seeks to influence the campus community by engaging students in service projects on and off campus. Peer educators promote health and wellness education by providing programs, events, and other public health initiatives to peers in order to create a more caring, compassionate, and connected campus community. The course provides students with the skills to develop and execute workshops, presentations and awareness events in the college community on topics such as: alcohol, drugs, academics, stress, diversity, gender issues, health and wellness, relationships, sexuality, body image, sexually transmitted diseases, and others. (2 lec)

ELC 100 Math for Electricians **3 Credits**
Emphasizes the arithmetic needed for success as an electrician; mathematical order of operations with whole numbers, fractions, and decimals; percentages, averages, and estimates; powers and roots; measurement of length, area, volume, temperature, and energy; ratios and proportions; rearranging a formula, Ohm's Law and the power formula; right triangle trigonometry and vectors. (3 lec) ***Approval pending.***

ELC 111 Basic Electricity I **3 Credits**
Studies the principles of direct current electricity, focusing on the theoretical concepts of direct current circuits and instruments as they apply to electrical and electronic components and equipment. (3 lec) **Pre- or Co-requisite: ELC100, with appropriate score on Accuplacer math**

ELC 112 Basic Electricity II **3 Credits**
Considers the principles of alternating current electricity, focusing on the theoretical concepts of alternating current circuits, as they apply to electrical and electronic components and equipment. (3 lec, 3 lab) **Prerequisite: ELC 111 with grade of C or better or permission**

ELC 121 National Electrical Code **3 Credits**
Reviews the code rules found in the National Electrical Code, NFPA 70, to ensure safe installation of electrical wiring and equipment. (3 lec) **Prerequisite: High School Diploma, GED or permission**

ELC 131 Basic Electronics I **3 Credits**
Presents the principles of electronics beginning with semi-conductor theory.

Rectification, transistors, SCR's, TRIAC's and optoelectronic devices are studied. (3 lec, 0 lab) **Prerequisite: ELC 112 with grade of C or better or permission**

ELC 141 Electric Motors **3 Credits**
Studies the principles of electric motors and generators as they apply to the electrical industry. Students install electric motors and diagnose problems with them. (3 lec) **Prerequisite ELC 161**

ELC 151 Electrical Controls I **3 Credits**
Addresses concepts, materials, diagrams, and circuits relative to residential wiring applications, along with appropriate National Electrical Code articles. (3 lec) **Prerequisite or Co-Requisite: ELC 111**

ELC 152 Electrical Controls II **3 Credits**
Teaches the principles and components of starting, accelerating, protecting, and stopping alternating current motors. (3 lec) **Prerequisite: ELC 151 with a grade of C or better**

ELC 161 Transformers **3 Credits**
Covers the principles of transformers and three-phase power, and diagnosing their service problems in the electrical industry. (3 lec) **Prerequisite: ELC 112 with grade of C or better**

ELC 171 Electrical Blueprint Reading **3 Credits**
Covers the principles of commercial and industrial electrical blueprint layouts, with emphasis on specifications, estimating procedures, interpreting one-line diagrams, power distribution layouts, and lighting layouts. (3 lec)

EMS 100 First Responder **2 Credits**
This entry level course is designed to prepare students for the role of first responder. Particular focus is given to lifesaving techniques that are designed to stabilize the patient before the ambulance arrives. Upon successful completion of this course and national certification examinations, the student will be eligible for Maine State Licensure. (54 hours) **Prerequisite: Reading Comprehension exam**

EMS 121 First Aid in the Workplace **1.33 Credits**
This course reviews key workplace safety topics including scene safety and standard precautions. Coursework includes certification in American Heart Association CPR, the use of Automatic External Defibrillators and basic first aid. In addition, this class will review awareness of hazardous materials in the workplace. (27 hours)

EMS 123 Emergency Medical Technician-Basic **5.5 Credits**
Prepares ambulance and rescue personnel, police officers, and fire fighters to administer out-of-hospital emergency medical care. The laboratory component provides practice in patient assessment, airway management, CPR, automatic external defibrillation, oxygen delivery, hemorrhage control, splinting, spinal immobilization, childbirth, lifting and moving patients, and extrication. This course includes clinical experience in a hospital emergency department and/or

ambulance service. Students who successfully complete this course are eligible to sit for the National Registry of EMTs certification examination (117 hours), **Prerequisite: Score ≥ 62 on Accuplacer Reading Comprehension exam**

EMS 124 First Responder to EMT-Basic Bridge 3.5 Credits
Prepares currently licensed First Responders (Emergency Responders) to administer out-of-hospital emergency medical care. The laboratory component provides practice in patient assessment, airway management, CPR, automatic external defibrillation, oxygen delivery, hemorrhage control, splinting, spinal immobilization, childbirth, lifting and moving patients, and extrication. This course includes clinical experience in a hospital emergency department and/or ambulance service. Students who successfully complete this course are eligible to sit for the State National Registry of EMTs certification examination . **Prerequisite: Reading Comprehension exam and Maine EMS Licensed First Responder**

EMS 125 Advanced Healthcare Provider to EMT Basic Bridge 4.5 Credits
Designed for experienced advanced allied health care providers (RN, PA-C, and NP) to provide exposure to the field of EMS. Students will complete a minimum of 84 hours of didactic and practical time, including a precepted internship with a local EMS agency. Goals of the course include review of EMS operations, provision of care in the out-of-hospital environment, and management of patients in the pre-hospital setting. Upon successful completion of this course, participants may apply to take the National Registry of EMTs certification examination and pursue state licensure as an EMT-Basic. (80 hours)

EMS 201 Fundamentals of EMS 3 Credits
Introduces the student to the role of the Advanced Life Support Provider. Topics covered include roles and responsibilities of ALS providers, medical terminology, self-care, and initial patient stabilization and management. Students will learn how to obtain a history and perform a physical assessment on a patient. (45 lec hours, 0 lab hours) **Prerequisites: Maine EMS (or equivalent other state) licensure at the intermediate/AEMT level, successful completion of APEMS-required preadmission testing, and meeting all program admission requirements.**

EMS 202 Cardiac/Respiratory Emergencies 3 Credits
Provides an in-depth study of the respiratory and cardiovascular system. In the lab, students will learn advanced airway skills, perfect ventilation techniques, and perform basic cardiac rhythm interpretation. An introduction to the pathophysiology and management of cardiovascular and respiratory disorders will be provided. This course serves as a core course for the EMT-Intermediate (AEMT) licensure. (30 lec hours, 30 lab hours) **Pre- or Co-requisite: EMS 201**

EMS 205 EMT-Intermediate Skills Seminar 2 Credits
This course serves two major purposes. First, it serves as a refresher for those currently licensed EMT Intermediates wishing to become paramedics. Second, it is a required course for students who will be licensed at the EMT-Intermediate level. Students will review and practice all intermediate/advanced EMT skills in an interactive seminar format. The course includes multiple case studies,

interactive lab sessions, and creative teaching methods. The course concludes with mandatory skills tests to assure mastery of the topics covered in the intermediate/AEMT Curriculum. (15 lec hours, 20 lab hours) **Pre- or Co-requisites: EMS 201, EMS 202 or currently licensed EMT-Intermediate**

EMS 206 Intermediate Clinical Preceptorship and Field Internship 3 Credits
This course provides students the opportunity to apply the didactic knowledge and skills developed in the classroom. in the pre-hospital and clinical setting, Students partner with pre-hospital providers at local ambulance services and clinical preceptors in various healthcare settings to develop skills in clinical decision-making, electro-cardiology, and management of acute and chronic disease. This clinical experience focuses on the skills needed to function at the Intermediate/AEMT level. (150 clinical hours) **Pre- or Co-requisites: EMS 201, EMS 202, EMS205, and advisor approval**

EMS 207 Advanced Cardiac Life Support Lab (AHA) 1 Credit
Teaches the standardized American Heart Association approach to managing cardiac emergencies and emergency resuscitation. Recommended after completion of EMS 203. (2 lab)

EMS 208 Advanced Emergency Cardiovascular Care 4.5 Credits
This course provides an in-depth study of the pathophysiology of cardiac and vascular disorders. Topics covered include the physiology, assessment, pharmacology, and treatment of acid base balance disturbances, cardiac rhythm alterations, 12- lead ECG analysis and the acute coronary syndrome. In the lab, students learn advanced paramedic skills such as cardiac arrest management and clinical decision making. Students completing the course will receive a certificate in Advanced Cardiac Life Support (ACLS). (There may be an additional cost for ACLS certification). This course meets and exceeds the Maine EMS required objectives for original 12-Lead ECG training. (45 lec hours, 45 lab hours) **Pre-requisites: EMS 201, EMS 202, EMS 205, EMS 206, currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval**

EMS 210 Paramedic Emergencies I 2.5 Credits
This Course provides an introduction to emergency pharmacology and an in-depth study of the pathophysiology of airway and pulmonary disease and disorders. Topics covered include the physiology, assessment and treatment of airway and breathing disorders. In the lab, students learn advanced airway procedures such as endotracheal intubation, CPAP, capnography and clinical decision making. Students completing the course will meet and exceed the objectives of the Maine EMS Paramedic Interfacility Transfer Module (PIFT). (There may be additional cost for PIFT certification.) (30 lec hours, 15 lab hours) **Pre-requisites: EMS 201, EMS 202, EMS 205, EMS 206, currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval**

EMS 212 Emergency Care Across the Lifespan 2.5 Credits
This course provides students with the opportunity to study how growth and development impacts the delivery of emergency care. Topics include pediatric

and neonatal emergencies, obstetrical care, geriatric emergencies, and age appropriate care. Provisions for providing emergency care to all age groups are presented. The normal physiological changes of aging are reviewed. Students completing the course will receive certificates in Pediatric Advanced Life Support (PALS) and Geriatric Education for Emergency Medical Services (GEMS). (There may be an additional cost for PALS and GEMS certification).. (30 lec hours, 15 lab hours) **Pre-requisites: EMS 201, EMS 202, EMS 205, EMS 206, currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval**

EMS 214 Paramedic Skills Seminar 2 Credits
This is the last course necessary to complete the paramedic program. This course is designed to provide students an intense lab experience that simulates professional paramedic practice. Students completing this course will practice the manipulative skills necessary to successfully pass the National Registry and State of Maine Paramedic Psychomotor Examination and to become professional field practitioners. Additional topics discussed will include, concepts of life-long learning, quality improvement, and the paramedic's role in community education. (10 lec hours, 45 lab hours) **Pre-requisites: EMS 201, EMS 202, EMS 205, EMS 206, EMS 208, EMS 209, EMS 211, EMS 212, EMS 213, EMS 215, EMS 216, currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval**

EMS 215 Paramedic Clinical Preceptorship and Field Internship I 3 Credits
This faculty directed practicum provides the opportunity for each student to develop competency in clinical skills within the hospital and pre-hospital setting. Clinical rotations occur in cardiac care units, newborn nurseries, labor and delivery, post-anethesia units, one-day surgery, geriatrics, respiratory, cardiology, emergency room, operating room, and others. The pre-hospital rotation allows students to assume the role of the paramedic in order to perfect clinical and assessment skills. During this rotation, the student will primarily observe and assist the precepting paramedics. The student works under the direction of an experienced preceptor. (138 clinical hours) **Pre-requisites: EMS 201, EMS 202, EMS 205, EMS 206, pre- or co-requisites: EMS208 and EMS 209, currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval**

EMS 216 Paramedic Clinical Preceptorship and Field Internship II 2 Credits
This faculty directed practicum provides the opportunity for each student to develop competency in clinical skills within the hospital and pre-hospital setting. Clinical rotations occur in cardiac care units, newborn nurseries, labor and delivery, post-anesthesia units, one-day surgery, geriatrics, respiratory, cardiology, emergency room, operating room, and others. During the pre-hospital rotation the student will begin to take a lead role in assessing patients and decision making. The student works under the direction of an experienced preceptor. (120 clinical hours) **Pre-requisites: EMS 201, EMS 202, EMS 205, EMS 206, EMS 208, EMS 209, EMS 215, pre- or co-requisites: EMS 211 and EMS 212, currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval**

EMS 217 Paramedic Clinical Preceptorship and Field Internship III 3 Credits
This faculty directed practicum provides the opportunity for each student to develop competency in clinical skills within the hospital and pre-hospital setting. Clinical rotations occur in cardiac care units, newborn nurseries, labor and delivery, post-anesthesia units, one-day surgery, geriatrics, respiratory, cardiology, emergency room, operating room, and others. During the pre-hospital rotation the student will be expected to serve as the lead paramedic on all calls. The student works under the direction of an experienced preceptor. (146 clinical hours) **Pre-requisites: EMS 201, EMS 202, EMS 205, EMS 206, EMS 208, EMS 209, EMS 211, EMS 212, EMS 215, EMS 216, pre- or co-requisite: EMS 213 and EMS 214, currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval**

EMS 223 Introduction to Community Health 3 Credits
Presents a survey of theory and practice in community health. Specific attention is given to the public health system, voluntary health agencies, epidemiology, solving community health problems, and the role of community health education. A research paper about a selected community health problem or issue is required. (3 lec)

EMS 225 Biomedical Ethics 3 Credits
Presents an analysis of ethical issues arising within modern medicine and the health care professions, such as paternalism and truth-telling, euthanasia, abortion, modern reproductive technologies, nurse-patient and nurse-physician relationships, civil commitment, and allocation of scarce medical resources. (3 lec, 0 lab)

EMS 231 Paramedic Emergencies II 3 Credits
In this course, the student is given an intense introduction to the pathophysiology and management of selected diseases**,** based on body systems. Specific pathophysiologies include infectious and communicable diseases, allergies and anaphylaxis, vascular toxicology and hematology, neurological, endocrine, renal and gastroenterology emergencies and systems. An overview of common laboratory and diagnostic tests is presented. Students completing the course will receive a certificate in Emergency Medical Patients: Assessment Care and Transport (EMPACT).(Note: there may be an additional cost for EMPACT certification). (55 lec hours) **Prerequisites: EMS 210, 202, 205, and 206 and currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval; advisor approval.**

EMS 233 Paramedic Emergencies III 3 Credits
This course provides students with a comprehensive review of the pathophysiology, kinematics and management of the trauma patient. Topics include multi-systems trauma, spinal injury, chest and abdominal injuries, traumatic brain injuries, orthopedic injury, environmental emergencies and burn care. Students completing the course will receive a certificate in Prehospital Trauma Life Support (PHTLS). (Note: there may be an additional cost for PHTLS certification). (60 lec hours) **Prerequisites: EMS 210, 202, 205, and 206 and**

currently licensed Intermediate/AEMT, successful completion of all APEMS required preadmission testing, and advisor approval

ENG 101 College Composition 3 Credits
Emphasizes rhetorical principles, accuracy of expression, organization, and longer essays in order to help students think logically and write clearly. In addition, students prepare a research paper and sit for a competency-based examination. A passing grade in this course or its equivalent is a graduation requirement of all degree candidates. (3 lec) **Prerequisite: WP Accuplacer score ≥ 6**

ENG 105 College Composition with Lab 3.5 Credits
Emphasizes rhetorical principles, accuracy of expression, organization, and longer essays in order to help students think logically and write clearly. In addition, students prepare a research paper and sit for a competency-based examination. A passing grade in this course or its equivalent is a graduation requirement of all degree candidates. ENG 105 includes an additional hour-long writing lab per week that allows for peer review. (3 lec, 1 lab) **Prerequisite: WP Accuplacer score ≥ 5**

ENG 112 Introduction to Literature 3 Credits
Seeks to develop in students an appreciation of literature and insights into human values that can result from close studies of it. Students will read, discuss and write about selections that represent interpretive literature. (3 lec) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 116 Journalism Seminar 3 Credits
This extensive specialty writing class is open to students who may take it as many times as they desire. Students will help write and publish the Eagle Eye, the campus bi-weekly newspaper. Class time will offer a focus beyond merely writing and publishing competent stories in print journalism; discussion periods will include analysis of writing for TV and radio broadcast stations and public relations offices. Students will work on a variety of writing assignments every semester covering hard news, features, profiles, in-depth stories and investigative stories, editorials and opinion pieces, and even specialty writing (business, sports and the arts). Different legal and ethical issues in the media will be considered each semester, including ones relating to privacy, obscenity, sunshine laws and the media's self-proclaimed status as the "Fourth Estate." (3 lec) **Writing Intensive Course**

ENG 131 Basic Movie Screenwriting 3 Credits
Examines the fundamentals of movie structure and its narrative components: story, character, action, dialogue. The student will do a minimum of sixteen screenwriting exercises designed to develop skills in each of these components. (3 lec) **Writing Intensive Course**

ENG 162 Creative Non-Fiction Writing 3 Credits
Uses a non-workshop approach - no peer editing or critiques. Students will read short creative non-fiction, explore developing non-fiction material using fictional

techniques such as dialogue and narrative voice, and write their own pieces (3 lec) **Writing Intensive Course**

ENG 172 Creative Writing **3 Credits**
Provides students with the opportunity to explore and develop their own writing style and voice in a mutually-supportive environment. Focuses primarily on short fiction and poetry, with consideration of other genres, including but not limited to creative non-fiction and the novel, as befits individual interests. As a member of a community of writers, students will read, write, and share their work in a safe space for creating, experimenting, and exchanging constructive criticism with their peers. Coursework will include in-class and take-home exercises, peer workshops, one-on-one conferences, and critical analysis of professional works. Students will present a portfolio that illustrates both their best work and their improvement during the semester. (3 lec) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better.**

ENG 212 Introduction to Film **3 Credits**
Introduces students to the history and analysis of American and international narrative film. (2 lec, 2 lab) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 214 Topics in Film **3 Credits**
Focuses on a different topic in film each time it is offered: may be taken more than once for credit. Topics will be determined by the department**.** (3 lec) **Writing Intensive Course Prerequisites: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 215 Business and Technical Writing **3 Credits**
Gives students hands-on experience in writing for business and industry. Students will address a variety of writing situations by selecting appropriate methods of development, including letters and memoranda, informal and formal reports, technical instructions and a professional resume. In addition to written assignments, students will conduct a technical briefing at the conclusion of the course. (3 lec, 0 lab) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 221 Writing History Close to Home **3 Credits**
Reviews historical research techniques including historical methodology and reasoning. Student will research a local, family, technological, or 'larger history' issue or question and then write a major paper based on primary and secondary sources. The course's double emphasis is history-close-to-home and the creation of knowledge through writing and research. (3 lec) **Prerequisite: ENG 101 or ENG 105 with grade of C or better.**

ENG 222 True Crime **3 Credits**
Examines historic and contemporary accounts of criminal activity. Students will discuss such issues as the cultural influences on the crimes themselves and on the creation and reception of the accounts. In cases where these works have inspired--or even attained the status of--"literature", students will also consider

the ways that the practices of fiction and nonfiction diverge or intersect. (3 lec) **Prerequisite: ENG101 with grade of C or better**

ENG 223 Science Fiction and Fantasy Literature 3 Credits
Emphasizes techniques for close reading and writing about elements of Science Fiction and Fantasy literature including characters, points of view, plots, settings, themes, and symbolism. Students will read Science Fiction and Fantasy literature alongside instructional material that guides them through the close reading and writing processes. Weekly written responses to reading and two comprehensive essays are required. (3 lec)

ENG 224 The Graphic Novel 3 Credits
Students will study the graphic novel as literature, briefly investigating the history and evolution of sequential art, developing a vocabulary for evaluating and discussing the graphic novel as a narrative form, and closely analyzing representative works of personal and political memoir, social satire, and commercial escape. (3 lec) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better.**

ENG 225 Literature by Women 3 Credits
Examines the wide-ranging body of poetry, fiction, drama, letters, essays, journals and other literature by women from the Middle Ages to the present day. Emphasis will be placed on the artistic and cultural influences on—and implications of—these works and these writers. Usually offered in the fall semester. (3 lec) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 227 British Literature I 3 Credits
Explores selected major and lesser-known works from the Medieval Period through the Eighteenth Century. Usually offered in the fall semester. (3 lec) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 228 British Literature II 3 Credits
Explores selected major and lesser-known works from the Romantic Period through the Twentieth Century. Usually offered in the spring semester. (3 lec) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 233 Adaptations: Fiction and Film 3 Credits
Examines in- depth the ways that films and literary texts intersect and diverge as they interpret and re-interpret narrative. Usually offered in the spring semester. (2 lec, 2 lab) **Writing Intensive Course. Prerequisite: ENG 101 or ENG 105 with grade of C or better or permission.**

ENG 241 Introduction to Drama 3 Credits
Explores plays from a variety of historical periods, analyzing such issues as their cultural contexts and possibilities for interpretation. Students will read, discuss, write about, and perform selected works. **Writing Intensive** (3 lec) **Prerequisite: ENG 101 or 105 with a C or better**

ENG 262 Advanced Creative Non-Fiction **3 Credits**
A writing-intensive course building on skills, techniques, and approaches developed in ENG 162. Students will study structure, development, style, and voice in creative non-fiction. They will also read short examples of various types of short non-fiction and then write their own weekly 400-750 word samples, present them to the class, and discuss their work with the instructor (3 lec) **Writing Intensive Course. Prerequisite: ENG 162 (A writing sample and instructor permission can substitute for ENG 162**.)

ENG 291 Topics in Literature **3 Credits**
Focuses on a different topic in literature each time it is offered and may be taken more than once for credit. Topics will be determined by the department. (3 lec) **Prerequisites: ENG 101 or ENG 105, and ENG 112 with grades of C or better.**

EPT 116 DC Circuits **3 Credits**
Explores the fundamentals of DC Electricity. Topics examined include voltage, current, resistance, power, series and parallel circuits and circuit analysis theorems. Troubleshooting skills are emphasized. (45 hrs lec & rec, 30 hrs. lab) **A grade of C or better is required. Prerequisite: Admission into Electrical & Automation Technology**

EPT 123 Power Distribution **3 Credits**
Examines three-phase WYE and Delta systems, transformers (single-phase, three-phase and CT's, PT's, autotransformer, and buck-boost applications), switchgear, and other common power system components. Residential, commercial, and industrial power distribution will be covered. One-line diagrams, fault calculations, per unit calculations, arc flash, and other power systems analysis will be covered. A project using EasyPower software will be required. (1 lec 2 lab) **Prerequisite: EPT 125**

EPT 125 AC Electricity **3 Credits**
Covers the fundamentals of magnetism, AC power generation, terminology, phase angles, reactance, oscilloscopes, and other test equipment. (3 lec) **A grade of C or better is required. Prerequisite: EPT 116 and MAT 119**

EPT 155 National Electrical Code **3 Credits**
Interpret and apply the National Electrical Code to common wiring installations. In addition to studying Chapters 1-4 of the NEC, real-world wiring installations will be examined. Prepares the student to sit for his/her State of Maine Journeyman Exam. **Must be enrolled in the E&AT program.** (3 lec)

EPT 167 Fluid Power Technology **3 Credits**
Examines all aspects of pneumatic and hydraulic fluid power systems including component selection, component installation, function analysis, basic system design, troubleshooting, and testing techniques. (2 lec, 1 lab)

EPT 173 DC/AC Machines **3 Credits**
Provides the student with the tools to successfully select, install and maintain DC and AC rotating machines. Machines to be examined include DC shunt, series and compound motors and generators as well as single and three-phase motors and generators. (45 hrs lec & rec, 30 hrs lab) **Prerequisite: EPT123**

EPT 176 Programmable Controllers **3 Credits**
Explores the design, installation, and use of programmable automation controllers in industry. Students program the Allen Bradley SLC 500 and are introduced to other automation controllers. Students will learn how to turn a written description of an automated process into a working program. Specific skills associated with product selection, entering and editing ladder logic, documentation, communications, connectivity, and safety interlocks will be developed. (1 lec, 2 lab) **Prerequisite: EPT 245**

EPT 228 Industrial Electronics **3 Credits**
With an emphasis on applications and troubleshooting, this course takes a strong system approach that identifies the circuits and components within a system and helps students see how the circuit relates to the overall system function. This course will provide a solid foundation in semiconductor theory along with circuits containing diodes, zener diodes, BJTs, JFETS, and MOSFETs. (1 lec & 2 lab) **Prerequisite: EPT 125**

EPT 241 Linear Circuits **3 Credits**
Introduces the theory and application of operational amplifiers, including circuit connections, operational amplifier circuits, and special purpose circuits. (45 hrs lec & rec, 30 hrs lab) **Prerequisite: EPT 228**

EPT 245 Digital Electronics **3 Credits**
Explores digital logic circuits and devices. Following a review of necessary numbering systems (binary, octal, hexidecimal) the student will study and connect all basic gates, adders, counters, one-shots and multiplexers. This will culminate in a study of serial and parallel digital communications. (45 hrs lec & rec, 30 hrs lab) **Prerequisite: EPT 116**

EPT 251 Control Systems **3 Credits**
With an emphasis on applications and troubleshooting, this course introduces electromechanical and solid state control devices used in industrial control systems. Students will gain skills in the selection, design, and installation of circuits using relays, time delay relays, contactors, motor starters (NEMA and IEC), overload relays, pushbutton operators, selector switches, proximity switches, photoelectric sensors, and variable frequency drives. (15 hrs lec, 60 hrs labs) **Prerequisite: EPT 173**

EPT 296 Automation Projects I **3 Credits**
Topics may include integrating sensors and output devices with programmable automation controllers, instrumentation, process control, servo systems, building automation systems, and industrial robotics. Students may work with industrial products made by GE, Automation Direct, Allerton, AB, Emerson, and many

others. Students will be required to complete a design project. (15 hrs lec, 60 hrs lab) **Prerequisite: EPT 176**

EPT 298 Automation Projects II **3 Credits**
Provides students with experience in high level function block/ladder logic PLC programming as well as HMI screen development. Students will design simulated automation systems using the latest release of the Rockwell Software Control Logix and Factory Talk View operator interface development software. In addition, this course will provide an opportunity for students to build an instructor selected automation related capstone project. (15 hrs lec, 60 hrs lab) **Prerequisite: EPT 296**

EPT 299 Selected Electrical Topics **2 Credits**
This course seeks to combine topics that are relevant to electrical and automation technology but do not fit into other courses or warrant a course of their own. Topics covered may include, but are not limited to, blueprint reading, AudoCadd, lighting design, wiring practices, conduit bending, overcurrent protection, computer networks, network cabling, and human machine interfaces. (60 hrs lec & rec) **Co-requisite: Fourth semester status**

FAR 291 Special Topics in Fine Arts **3 Credits**
Focuses on a different topic each time it is offered. Can be taken more than once.

FIR 104 Emergency Telecommunicator–Basic **3 Credits**
This course is designed to prepare students for emergency telecommunicator duties to meet requirements of the NFPA 1061 Professional Qualification Standard for Public Safety Telecommunicator I; as well as meeting the State of Maine statutory requirement for those employed at public safety dispatch centers in Maine [25 MSRA § 2926 2(b)]. The course combines instructor presentations, student activities and simulation exercises to develop skills and knowledge in the field. The course will provide the student with the knowledge of roles and responsibilities, current technologies, interpersonal communications skills, telephone communication and call processing skills, radio broadcast procedures, legal aspects of public safety communications and stress management skills. In addition the course will introduce students to the skills necessary to manage requests for police, fire and medical services. Future public safety field responders will also gain a better appreciation and working knowledge for their relationship with their respective communications center. (3 lec)

FIR 110 Fire Protection Systems **3 Credits**
This course is an introduction to fire protection and detection systems and their role in community fire protection. The focus of this course is on understanding fire behavior and the basic components that make up fire protection systems. Topics covered in this class include: Fire behavior, portable fire extinguishers, fire alarm and detection systems, standpipe systems, commercial/industrial automatic sprinkler systems, residential sprinkler systems, special extinguishing systems, and community fire protection. (3 lec) **Preference to Fire Science majors**

FIR 115 Fire Service Building Construction **3 Credits**
This course is designed to be a comprehensive study of building materials, methods and design as they are related to fire protection and suppression. Topics covered in this class include: building materials and their impact on the fire service, types of construction, methods of construction, fire protection features, building codes, an examination fire's effect on buildings and evaluation of fire damage. Many case studies are used during the delivery of this course to illustrate the importance of understanding building construction This course concludes with presentations of semester long student projects. (3 lec) **Preference to Fire Science majors**

FIR 125 FT Student Live-In Program **1 Credit**
This course, one in a continuous series of Service Learning courses, provides the Fire Science Technology students with experiential learning opportunities in the field of fire protection. Service Learning credits are available to the student for each semester with a maximum of four credits awarded. The student will live at an area fire station and become a fully participating member of that department. The student will learn and practice job responsibilities in the functional area of fire suppression, fire prevention, equipment maintenance, and facility maintenance. The student will keep a log of his/her activities and reflect on experiences in regular group meetings. This course is available only to full time, matriculated Fire Science Technology students participating in the Southern Maine Community College (EMCC) Live-In Program and may be taken up to four times for credit. (1 lec) **Prerequisite: Fire Science Program Acceptance**

FIR 150 Fire Inspector **3 Credits**
This course provides a demonstration of the basics of municipal fire inspection and code enforcement principles. Students will learn the basics of inspections, the identification of common hazards, the basics of special inspections, and the use of NFPA 101 Life Safety Codes and NFPA 1 Uniform Fire Code. (3 lec) **Preference to Fire Science majors**

FIR 155 Fire Service Hydraulics **3 Credit**
This is a foundation course in the principles of hydraulics as applied to fire service hose and appliances. This course applies theoretical and application principles to solve hydraulics based challenges. Topics include principles involving water at rest and in motion, solving hydraulic problems in fire hose layouts by exact mathematical calculation and fire ground estimation, establishing the ability to make rapid fire ground hydraulic determinations, and to evaluate the efficiency and effectiveness of various hydraulic systems including hydrant flows. (3 lec) **Co-requisite: MAT113**

FIR 160 Fire Investigation I **3 Credits**
This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes. (3 lec)

FIR 165 Wildlife Fire Management for Firefighters 3 Credits
A study of wildland fire management methods and theories as related to structural fire suppression and protection crews. Included in this course of study are basic wildland firefighting terms and principles; fire, smoke, heat and weather behavior; types of fuels and topography and the effects of wildland fires upon civilian and structural protection protection decisions.

FIR 170 Wildland Fire Behavior 3 Credits
Throughout history, wildland fires have shaped much of the natural landscape in New England as well as the rest of the United States. Relating fire behavior to modern landscapes will help managers make informed decisions about fuel management practices. This class will provide students with an understanding of expected fire behavior. Topics will include an in depth understanding of weather, topography, and fuels effect on wildland fire behavior. Although this class is not a firefighting class, a field component should be expected with the possibility to observe prescribed fire. It is recommended that students take Introduction to Wildland Fire management prior to this class. (3 lec)

FIR 200 Hazardous Materials Incident Management 3 Credits
Presents an All-Hazards approach for incident response to and management of natural or man-made disasters, Bus Accidents, plane crashes, and other disasters with multiple patients, or release of chemical products. Evaluates the hazards of calls containing flammable materials, pressurized vessels, cryogenic agents, oxidizing agents, corrosives, explosive and toxic materials. Familiarizes students with tools, equipment and response techniques as well as the federal and state laws that govern the handling of hazardous materials and the incidents they create. Includes proper notification, proper jurisdiction of various state and federal agencies, and proper documentation and reporting. Concludes with presentations of semester-long student projects. In conjunction with this course, there is an opportunity to participate in a field training that may result in State Hazardous Materials certification at the Operations Level. (3 lec) **Prerequisite: 30 credits toward major**

FIR 205 Fire & Life Safety Educator 3 Credits
This course is designed to meet the requirements of the NFPA 1035, the professional qualification standards for Public Fire and Life Safety Educator I and II. The course combines student activities, instructor presentations and community-based projects to develop skills and knowledge in the field. The course will provide students with the knowledge to design a public fire and life safety program, to organization a budget to meet the needs of the program, and to present a fire safety or life safety education presentation. Students can earn state certification from successful completion of this course and community based teaching assignments.

FIR 210 Fire Instructor 3 Credits
This course is designed to assist current and aspiring fire/rescue officers in teaching fire-service-oriented subjects and developing an understanding of the various methods of teaching fire/rescue occupational subjects. This course will aid students in preparing instructor lesson plans and help them to recognize and practice the effective use of other instructor resource materials. Students can

earn state and national certification from successful completion of this course and a practical teaching demonstration. (3 lec)

FIR 215 Fire Service Leadership 3 Credits
This course is designed to develop a foundation of leadership, supervision and communication skills for the fire officer. The subject matter, instruction, activities, and assignments will follow the recommendations for Fire Officer I and II as presented in NFPA 1021, Standard for Fire Officer Professional Qualifications. Students will study basic issues related to all supervision, as well as issues specific to fire service supervision. Students can earn state and national Fire Officer I & II certification by successfully completing this course, additional writing assignments, and community-based training and certification requirements. This course has been designated as a writing-intensive course. (3 lec) **Prerequisite: ENG101 or ENG105**

FIR 250 Fire Ground Operations 3 Credits
This course offers basic tactics and strategies to the firefighter. The course looks at three major response apparatus and explores the internal structure and skills needed to operate the scene of a fire. **Prerequisite: 30 credits toward major**

FIR 260 Fire Administration 3 Credits
This course is a broad overview of the management practices employed in today's fire/rescue services. The course focuses on the role of the fire administrator within the context of municipal government. The course will emphasize managerial ethics, accountability, the changing environment, planning, financial management, and preparing for the future. This course also requires development and defense of a Fire Science Thesis Portfolio documenting attainment of EMCC Fire Science learning outcomes. This course has been designated as a writing-intensive course. (3 lec) **Prerequisite: ENG101 or ENG105**

FIT 231 Pipefitting Fundamentals 2 Credits
Offers the student an introduction to pipefitting theory, nomenclature, materials, calculations, layout and templates. It offers the student the opportunity to develop skills necessary to successfully fit pipe including the safe use of hand and power tools, oxyfuel cutting equipment and pipe supports. Pipe preparation, fabrication, assembly and fitting are practiced with an emphasis on safety.
4 week course. (80 hr) **Prerequisite: WEL 269**

FIT 233 Practical Pipefitting I 1.5 Credits
Offers the student the opportunity to develop skills in pipefitting above ground including field measurements and the safe use of ladders, staging and rigging. Pipe hanger systems, salvage and disassembly will be examined and practiced. Assembly and salvage of socket welds will be introduced. An emphasis will be placed on working safely and collaboratively.
3 week course. (50 hr) **Prerequisite: FIT 231**

FIT 235 Practical Pipefitting II 1.5 Credits
Offers students the continued opportunity to develop skills in above ground piping with a focus on multiple and rolling offsets. Boiler tube and water wall

fitting will be introduced. An emphasis will be placed on working safely and collaboratively. 3 week course. (50 hr) **Prerequisite: FIT 233**

FWC 101 Basic Woodworking **7 Credits**
This course provides a continuation of Fine Woodworking 1 offering a comprehensive presentation of woodworking tools and equipment. This course will foster the skillful use of hand and power tools, including their selection, purpose and associated maintenance. Designed to educate the student in the safe, proper techniques used to fabricate superior woodworking accomplishments. Course emphasis will include the hands-on techniques necessary to produce intricate wood joinery and undertake detail oriented projects. 15-week course (3 lec,14 lab)

FWC 201 Woodworking **7 Credits**
This course provides a continuation of Basic Woodworking offering a comprehensive presentation of woodworking tools and equipment. This course will foster the skillful use of hand and power tools, including their selection, purpose and associated maintenance. Designed to educate the student in the safe, proper techniques used to fabricate superior woodworking accomplishments. Course emphasis will include the hands-on techniques necessary to produce intricate wood joinery and undertake detail oriented projects. 15-week course (3 lec,14 lab) **Prerequisite: FWC 111**

GEN 101 Prior Learning Assessment I **1 Credit**
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 102 Prior Learning Assessment II **2 Credits**
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 103 Prior Learning Assessment III **3 Credits**
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 106 Prior Learning Assessment IV **6 Credits**
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 109 Prior Learning Assessment V **9 Credits**
Involves the development of a portfolio of competencies and the assessment of

those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 111 Portfolio Development 1 Credit
Provides individual or group instruction in the development of a portfolio of competencies and background information for assessment purposes as part of the requirements of the Associate in Applied Science in General Technology Degree. **Prerequisites: Enrollment in General Technology program & ENG 101, or suitable Accuplacer score and permission.**

GEN 112 Prior Learning Assessment VI 12 Credits
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 113 Prior Learning Portfolio Development 3 Credits
Provides step-by-step instruction regarding the building of a complete portfolio for assessment, which must accurately reflect the student's learning accomplishments and work-related competencies. (3 lec) **Prerequisites: Enrollment in General Technology program & ENG 101, or suitable Accuplacer Score and permission.**

GEN 115 Prior Learning Assessment VII 15 Credits
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 118 Prior Learning Assessment VIII 18 Credits
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GEN 121 Prior Learning Assessment IX 21 Credits
Involves the development of a portfolio of competencies and the assessment of those competencies by an evaluator as part of the Associate in Applied Science in General Technology Degree. **Prerequisite: Admission to General Technology program.**

GIS 230 Introduction to Geographic Information Systems 4 Credits
Students will build an understanding of the fundamentals of a GIS through lecture, readings and computer activities. Students will learn to use a specific GIS software system, ArcGIS, to use a GPS receiver and to integrate data from GPS to GIS software, and to define and complete a GIS project using existing data. This computer-intensive course includes a detailed discussion and related computer activities on the following topics: basic geography and map concepts, what a GIS is, data sources, data quality, databases, data classification, vector

and raster data, spatial analysis, project management, cartographic communication, metadata, projections, datum, coordinates, and ethics. (3 lec, 1 lab)

HIS 101 American History Since 1898 **3 Credits**
Explores the history of the United States from 1898 to the present. The course covers the political, social, and economic development of the U.S. (3 lec)

HIS 105 History of Science and Technology **3 Credits**
Focuses on science and technology from the American colonial period to the present, examining the social, political, and economic factors that have influenced science and technology development, and the impact of these developments on society. (3 lec)

HIS 106 Food in History **3 Credits**
Designed to focus on food as a way to examine both world and U.S. history. Particular emphasis will be placed on food and its connection with society. The history of control over food production, and the symbolic, cultural and religious importance of food in past and present day will be addressed. The impact of colonization, immigration and legislation are included as part of the course structure. (3 lec)

HIS 111 World History **3 Credits**
Traces the development of the world from isolated regions in the 1550s to the interrelated global network of the present day. Through lectures, readings, and discussions, students will identify major historical trends and themes in world history related to the growing interdependence between world regions. This interaction was stimulated by European invasion and colonization, but also sustained by the contributions of non-western regions. This course addresses the social, economic, political and environmental facets of this increasingly interconnected world. (3 lec)

HIS 120 History of Craft **3 Credits**
Explores the history of the use of natural resources including clay, wood, metals, and fibers made into functional art by peoples around the world and investigates the contemporary expression of those crafts. Lecture-based, the course incorporates visits to contemporary craft artists' studios and dialogue with artisans about their craft. (3 lec)

HIS 291 Special Topics in History **3 Credits**
Focuses on a different topic each time it is offered. Can be taken more than once.

HTM 101 Introduction to Hospitality Management **3 Credits**
Introduces students to career opportunities in the hospitality industry from operations management to ownership. Students will investigate segments of the industry including food and beverage management, casino and gaming management, lodging management, club management, and travel and tourism management. A particular emphasis will also be placed on developing critical leadership and management skills and understanding how to identify forces affecting the growth and change of the hospitality industry. (3 lec)

HTM 111 Hotel Front Office and Guest Accounting **3 Credits**
This course introduces students to front-office operations and management, and to the accounting function as it relates to the front office. It also introduces successful strategies and operational tactics used by front-desk professionals for day-to-day operations, as well as employee management techniques that are important to the success of the front office. (3 lec)

HTM 131 Beverage Controls and Sanitation **3 Credits**
A certification course that provides students with basic sanitation principles, ways to apply them in practical situation, and methods of training and motivating employees to follow good sanitation practices. Students are exposed to the identification, history, manufacture, and use of malted beverages, wines, and distilled spirits as well as to how, when, and where they relate to a beverage operation. Purchasing and control of a bar inventory and legal, moral, and social obligations of proper beverage service are also included. (3 lec)

HTM 141 Hospitality Human Resources **3 Credits**
Examination of the applications of management and supervisory practices in the hospitality industry. Fundamental information, approaches, functions, and forms of human resource management are applied to the service industry to enable managers to accomplish company goals. Topics include federal employment legislation, diversity issues, labor market fundamentals, recruitment, interviewing, selection, hiring, training, evaluation, discipline, compensation, and benefits. (3 lec)

HTM 161 Customer Service/Relations **3 Credits**
Exploration of the art of customer service. Investigates the development of a process to achieve goals through excellence in customer service. Discussion of best practices in identifying expectations, measuring quality of service, service team development, orchestrating the customer's experience, and responding to customer feedback. Emphasis is on putting the customer at the center of your business. (3 lec)

HTM 221 Introduction to Food Preparation **3 Credits**
A survey course in basic food preparation, menu planning, service, and industry terminology. The course prepares students to work with foodservice concerns as they relate to the overall hospitality, travel, and tourism businesses. (2 lec; 2 lab)
Prerequisites: GEO 107, HTM 101, HTM 111, HTM 131, HTM 141, HTM 161**.**

HTM 231 Hospitality Law **3 Credits**
Designed to teach students to identify and understand the principles and concepts of laws impacting the hospitality industry. Provides an introduction to the court system and contracts and the legal rights of innkeepers and restaurateurs. The focus is on understanding risk, prevention of liability and protection against accidents, attitudes, and incidents that could lead to lawsuits. Case study and discussion examine the applications of law to the hospitality industry. (3 lec) **Prerequisites: All designated first year courses in Hospitality and Tourism Management, or permission**

HTM 251 Planning and Development of Tourism 3 Credits
Explores tourism development as a process and the changing trends in tourism. Topics include history of tourism development; economic, environmental, social and cultural impacts of tourism; travel behavior and tourism marketing. Discussion of all factors that influence the hospitality, leisure, travel and recreation industries – interstate, intrastate and internationally. Emphasis is on guidelines and approaches in development of tourism that responds to national, regional and community needs and desires. (3 lec)

HTM 261 Meetings and Convention Management 3 Credits
Exploration of the logistics involved in event planning. Students will discuss the wide spectrum of the convention market, examine the individual needs of people who plan and are part of the group function; those who review ways to service groups effectively. Special emphasis is places on the convention services department and manager. Topics include concept, design, feasibility, marketing, financial management, staging, staffing, safety and security, careers in this particular area of the hospitality industry, and how conference and event planning fits into the overall scope of the industry. (3 lec)

HUM 101 Introduction to Music and Art in Western Civilization 3 Credits
Seeks to develop in students an appreciation of the arts through the study of the great musicians and artists of the Western world. Key examples of music, painting, sculpture, and architecture from the Greeks to the present time will be examined. (3 lec)

HUM 103 Introduction to Art and Design in the 20th Century 3 Credits
Introduces Art and Design in the 20th Century. This course seeks to develop students' appreciation of art and design through the study of influential artists and designers in the 20th Century. Key examples of architects, industrial designers, painters and sculptors will be examined. (3 lec)

ISA 101 Industrial Safety 3 Credits
Teaches students to recognize, avoid, and prevent hazards in the workplace and includes information on individual rights to a safe, healthy work environment, in accordance with the U.S. Department of Labor. (3 lec)

KOR 101 Beginning Korean 3 Credits
Designed for those who have no prior knowledge in Korean. Aims to teach students to perform appropriate spoken and written communication in most essential daily life situations. Focuses on mastering correct pronunciation, writing system, and basic vocabulary and grammar used in carrying out simple real-life tasks; students will learn how to speak, understand, read and write short sentences and paragraphs on concrete and familiar topics such as identity, school and classes, daily activities, past experiences and future plans. Introduces Korean culture essential for a better understanding of Korean language. (3 lec)

KOR 102 Beginning Korean II 3 Credits
KOR 102 is the second half of the beginning level Korean, and is designed for those who have some prior knowledge in Korean. This course aims to train

students to perform appropriate spoken and written communication in most essential daily life situations. This course will focus on mastering correct pronunciation, writing system, and basic vocabulary and grammar used in carrying out simple real-life tasks; students will learn how to speak, understand, read and write short sentences and paragraphs on concrete and familiar topics such as identity, school and classes, daily activities, past experiences and future plans. This course will also introduce Korean culture essential for a better understanding of Korean language. (3 lec) **Prerequisite: KOR 101 or Instructor permission.**

LAE 013 Introduction to Writing I 3 Credits
Develops grammar, usage, and sentence structure skills at the paragraph and essay level, along with techniques of pre-writing, writing, and revising multiple drafts using the word processor and peer reading and editing. Students practice a variety of rhetorical patterns with emphasis on unity, support, coherence, and sentence skills. *Minimum grade of C to pass course.* (3 lec) **Placement: WR Accuplacer score ≤ 4**

LAE 015 Special Topics 3 Credits
Intended for students for whom English is a second language and others who need further work in basic writing skills at the essay level. This course continues to develop correct grammar and sentence structure usages. It also continues to have students practice different rhetorical essay patterns, emphasizing unity, support and coherence. *Minimum grade of C to pass course.* (3 lec, 0 lab) **Permission to take this course must be obtained from the Director of the Academic Support Center.**

LAE 041 Reading in Childhood Education 3 Credits
Helps students build critical reading and study skills needed for college success. Introduces students to the field of childhood education and familiarizes students with essential vocabulary and introductory concepts within the educational field. Issues and trends in childhood education will be explored and integrated into reading, writing and critical thinking projects. *Minimum grade of C to pass the course.* (3 lec) **Placement: Appropriate scores on Accuplacer**

LAE 042 Supported Study in Early Childhood and Education 1 Credit
Helps students build skills in reading, writing, research and critical thinking in the fields of Early Childhood and Education. Introduces students to relevant vocabulary and concepts and provides assistance with assignment procedures. Supports students in acquiring the skills necessary to be successful with college level work. (1 lec)

LAM 008 Pre-Algebra 3 Credits
Offers a one-semester review of whole number operations, fractions, decimals, percents, proportions, metrics, measurements, signed numbers, area, volume, algebraic expressions, and simple and linear equations. (3 lec) **Placement: AR Accuplacer score < 65. (Note: some students may require multiple semesters of LAM008 to acquire the knowledge for this level of achievement).**

LAM 009 Introductory Algebra **3 Credits**
Introduces students who may possess a strong background in arithmetic to some basic principles of algebra in preparation for more advanced coursework. Topics include signed numbers, algebraic expressions, equations and inequalities, polynomials, word problems, fractions graphing and factoring. (3 lec) **Placement: AR Accuplacer score > 65 and EA AccuPlacer score <65, or successful completion of LAM 008.**

MAS 101 Introduction to Medical Assisting **1 Credit**
Presents a variety of topics pertinent to the Medical Assisting profession. Subjects covered will include the principles governing the release of information and the confidentiality of patient information; the laws, regulations, ethics and other standards affecting the management of health care and the principles of liability resting with the medical assistant professional; and an overview of the health care professional's role and responsibility. (1 lec)

MAS 111 Clinical Procedures I & Lab **4 Credits**
Serves as an introduction to the medical assistant's role in obtaining patient histories, maintaining medical asepsis, assisting in physical exams for all of the medical specialties and in minor office surgery, collecting laboratory specimens, and performing vital signs. Students will develop an understanding of pathophysiology and prepare and implement appropriate patient educational tools. (3 lec, 2 lab) **Prerequisites: BIO 121, MAS 101, BMT 111**

MAS 121 Medical Office Procedures **3 Credits**
Develops skills using computerized medical office programs to initiate and input patient data; includes scheduling appointments, filing insurance claims, recording patient information, managing accounts receivable and accounts payable; banking and processing payroll. (3 lec) **Prerequisite: BMT 111**

MAS 201 Principles of Pharmacology **3 Credits**
Introduces the basic concepts of pharmacology. 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 introduced. This course will also cover mathematics and dosage calculations necessary for safe preparation and administration of medications. (3 lec) **Prerequisites: BIO 121, BIO 124, MAS 111, and BMT 111**

MAS 211 Clinical Procedures II and Lab **4 Credits**
This course will complete the clinical preparation of the coursework for Medical Assistants. The clinical competencies intended for this course include medication administration, specimen collection including phlebotomy, laboratory procedures, assisting with minor surgical procedures and medical emergencies, diagnostic procedures, and CPR. (3 lec, 2 lab) **Prerequisite: MAS 111**

MAS 221 Insurance Coding for the Medical Office **3 Credits**
Develops a basic understanding of procedural and diagnostic coding through use of CPT and ICD-9 Clinical Modification coding systems. Students will learn to process insurance claim forms while adhering to legal restrictions, and develop

an understanding of the specific requirements for managed care systems including "Maine specific" insurance carriers. (3 lec) **Prerequisites: BIO 121, MAS 121, BMT 111**

MAS 231 Medical Assistant Externship 5 Credits
Students gain practical experience in providing clinical care to patients and performing administrative and clinical tasks that occur in a medical office. Students are given the opportunity to apply learned clinical, laboratory and administrative skills in a health care setting under professional supervision and to gain clinical proficiency. (l lec, 160 hours). **Prerequisites: All MAS coursework and Program Director approval; CPR and First Aid certification.**

MAT 013 Applied Mathematics I 3 Credits
Provides instruction in decimals and fractions, ratio, proportions, percents, metric system, unit conversions, denominate number operations, basic algebraic concepts including operations with polynomials, solving simple equations, and transposing formulas. (3 lec) **Prerequisite: AR Accuplacer score ≥ 65, EA Accuplacer score < 65.**

MAT 017 Applied Mathematics II 3 Credits
Continues **MAT 013, Applied Mathematics I**, including systems of linear equations, factoring, quadratic equations, and selected topics from plane and solid geometry, with emphasis on perimeters, area, and volume, right-triangle trigonometry, oblique triangle trigonometry, graphing, and basic statistics. (3 lec) **Prerequisite: Grade of C or better in MAT 013.**

MAT 101 Contemporary Math 3 Credits
Designed to introduce the student to mathematics having applications in modern society. Topics will include social choice, apportionment, fair division, networks, circuits, planning and graphical solutions to linear programming. Additional topics may be drawn from statistics, coding, growth, symmetry, tilings and game theory. (3 lec) **Prerequisite: AR Accuplacer score ≥ 65, EA Accuplacer score ≥ 65.**

MAT 107 Elementary Descriptive Geometry 3 Credits
Designed to prepare students to teach the geometry included in a modern NCTM STANDARDS based K-8 curriculum. Emphasis will be on geometric exploration activities, problem solving and informal deductive reasoning using many of the manipulatives used to teach geometric concepts in grades K-8. (3 lec) **Prerequisite: AR Accuplacer score ≥ 65, EA Accuplacer score ≥ 65.**

MAT 108 Elementary Numerical Mathematics from a Modern Perspective- 3 Credits
Designed to prepare students to teach the non-geometric mathematics included in a modern NCTM STANDARDS based K-8 curriculum. Emphasis will be on the structure of arithmetic, development of good number sense, basic number theory, understanding probability and the use of descriptive statistics. Focuses on problem solving, and the development of arithmetic and algebraic reasoning skills. (3 lec) **Prerequisite: AR Accuplacer score ≥ 65, EA Accuplacer score ≥ 65.**

MAT 113 Technical Mathematics I **3 Credits**
Emphasizes arithmetic review, ratio, proportion, variation, power of roots, percent, metric system, unit conversions, signed numbers, basic algebraic expressions, algebraic operations, simple equations, inequalities, applied plane and solid geometry review (perimeter, area, and volume), graphing, and right triangle trigonometry. (3 lec, 0 lab or 2 lec, 2 lab; or 1 lec, 4 lab) **Prerequisite: AR Accuplacer score ≥ 65, EA Accuplacer score ≥ 65.**

MAT 114 Technical Mathematics II **3 Credits**
Emphasizes basic algebraic operations, factoring, algebraic fractions, exponents, radicals, scientific notation, quadratic equations, logarithms, fundamentals of statistics, simultaneous linear equations, law of sines, cosine law, oblique triangles, vectors and radians. (3 lec, 0 lab) **Prerequisite: Grade of C or better in MAT 113.**

MAT 117 Intermediate Algebra **3 Credits**
Builds a solid foundation in algebraic methods and techniques. The course covers signed numbers, order of operations, grouping symbols, linear equations, inequalities, exponents, polynomials, factoring, algebraic fractions, radicals, graphing, slopes, absolute value, quadratic equations, and systems of linear equations. (3 lec) **Prerequisite: AR Accuplacer score ≥ 65, EA Accuplacer score ≥ 65. or Grade of C or better in LAM 009, or equivalent.**

MAT 119 College Algebra **3 Credits**
Builds a solid foundation in algebraic methods and techniques. Covers proportions, fundamental algebraic concepts and operations, linear equations and inequalities, absolute value, solving word problems, algebraic products and factoring, algebraic equations, graphs of functions, quadratic equations, determinants, systems of equations, exponents and radicals, log functions, and theory of equations. (3 lec) **Prerequisite: AR Accuplacer score ≥ 85, EA Accuplacer score ≥ 75, or Grade of C or better in MAT 117, or equivalent.**

MAT 120 College Trigonometry **3 Credits**
Topics include degree and radian angle measure, right triangle trigonometry and its applications, trigonometric functions and their inverses, graphing trigonometric functions, applications of trigonometric functions, analytic trigonometry, solutions of oblique triangles, vectors, polar coordinates, graphs of equations in polar coordinates and the trigonometric form of complex numbers including DeMoivre's Theorem. (3 lec) **Prerequisite: Grade of C or better in MAT 119 or equivalent.**

MAT 123 College Algebra and Trigonometry **4 Credits**
Covers variables and symbols, scientific notation, logarithms and applications, roots, rational exponents and complex numbers, formulas and literal equations, polynomials, products and factors, solving linear, quadratic and higher order equations, rational expression, solving inequalities, graphs of linear and quadratic functions, slope, intercepts and equations of lines, solving systems of equations, degree and radian angle measure, right angle trigonometry and its applications, trigonometric functions and their inverses, graphing trigonometric functions, solutions of oblique triangles, vectors, polar coordinates, graphs of

equations in polar coordinates, and the trigonometric form of complex numbers including DeMoivre's Theorem. (4 lec) **Prerequisite: AR Accuplacer score ≥ 85, EA Accuplacer score ≥ 65, or Grade of C or better in MAT 117 or equivalent.**

MAT 160 Elementary Discrete Mathematics 3 Credits
Designed to improve students' critical-thinking and problem solving skills and emphasizes topics related to computer science. Topics include logic and truth tables, set theory, functions, number systems, mathematical induction, algorithms, combinatorics, equivalence relations, recurrence relations, graph theory and trees. Additional topics may include error correcting codes, finite state automata, and encruption. (3 lec) **Prerequisite: Grade of C or better in MAT119 and MAT120 or Grade of C or better in MAT123, or equivalent.**

MAT 161 Introduction to Statistics 3 Credits
Introduces statistical theory including the nature of statistical methods, the manner of data collection and presentation, the rules of probability, frequency distributions, sampling distributions, estimation and hypothesis testing, regression and correlation. (3 lec) **Prerequisite: Appropriate score on placement test**

MAT 217 Pre-Calculus 3 Credits
Designed to deepen and broaden a student's mathematical expertise before tackling the rigors of calculus, this course covers progressions, the binomial theorem, theory of polynomials with the Fundamental Theorem of Algebra, exponential and logarithmic functions, determinants, matrices, trigonometric identities, and fundamentals of plane analytic geometry. (3 lec, 0 lab) **Prerequisites: Grade of C or better in MAT 119 and 120, or Grade of C or better in MAT 123, or equivalent.**

MAT 225 Calculus I 4 Credits
An introduction to calculus for students in mathematics, engineering, and the sciences. Covers the differential calculus of the algebraic, trigonometric, exponential and logarithmic functions, concluding with the definite integral and the fundamental theorem of calculus. The approach is intuitive and geometric, with emphasis on understanding the basic concepts of function, limit, derivative and integral. (4 lec, 0 lab). **Prerequisite: Grade of C or better in MAT 217 or equivalent.**

MAT 226 Calculus II 4 Credits
Completes the study of single-variable calculus. Topics covered include inverse trigonometric functions, hyperbolic functions, methods of integration, improper integrals, indeterminate forms, parametric equations, polar coordinates, and infinite series. (4 lec) **Prerequisite: Grade of C or better in MAT 225.**

MAT 227 Calculus III 4 Credits
Topics include vector-valued functions, partial derivatives, multiple integrals, and the integration theorems of Green and Stokes. (4 lec) **Prerequisite: MAT 226 with a C or better.**

MAT 230 Introduction to Linear Algebra **3 Credits**
A course on matrix theory and linear algebra. Emphasis placed on topics useful in other disciplines, including systems of equations, vector spaces, determinants, eigenvalues, similarity, and positive definite matrices. (3 lec). **Prerequisite: MAT 227 with a C or better.**

MAT 235 Elementary Differential Equations **3 Credits**
An introduction to ordinary differential equations including first order differential equations, linear equations of higher order, power series methods, LaPlace transform, and applications. (3 lec) **Prerequisite: MAT 227 with a C or better.**

MRT 101 Basic Concepts of Radiography **1 Credit**
Introduces the student to the field of radiology as a profession. Topics such as the history of radiology, radiographic equipment, radiation exposure, and radiation safety are discussed. A radiographer's role in the care of the patient is reviewed. A brief discussion of several radiographic procedures is provided. (1 lec)

MRT 103 Introduction to Medical Terminology **1 Credit**
Presents a general study of medical terminology, focusing on definition by analysis of components, with emphasis on terminology encountered in the practice of surgical technology. (1 lec)

MRT 111 Radiographic Positioning I **3 Credits**
Introduces radiographic positioning and describes in detail the routine positions required to demonstrate the chest, abdomen, extremities, and portions of the pelvic and shoulder girdle. The laboratory component provides the opportunity for students to radiograph the phantom and under simulated conditions, practice various procedures that have been presented in the classroom. (3 lec, 1 lab) **Prerequisite: Admission to the Medical Radiography program**

MRT 112 Radiographic Positioning II **3 Credits**
Describes in detail the routine positions required to demonstrate the spinal column, thoracic cage, portions of the pelvic girdle, and all parts of the skull. The laboratory component provides the opportunity for students to radiograph the phantom and under simulated conditions, practice various procedures that have been presented in the classroom. (3 lec, 1 lab) **Prerequisite: MRT 111**

MRT 117 Radiologic Procedures I **1 Credit**
Introduces procedures requiring the use of contrast media, fluoroscopy, and portable radiographic equipment. (1 lec, 1 lab) **Prerequisite: Admission to the Medical Radiography program**

MRT 118 Radiologic Procedures II **1 Credit**
Continues instruction in procedures requiring the use of contrast media and fluoroscopy and introduces specialized radiographic examinations. (1 lec, 0 lab) **Prerequisite: MRT 117**

MRT 121 Principles of Radiographic Exposure I **2 Credits**
Provides the student with a thorough understanding of the theory of x-ray

production, x-ray interactions within tissue, selection of technical factors, and correlates this knowledge with practical application. The student will also develop a knowledge of film processing. (2 lec) **Prerequisite: Admission to the Medical Radiography program**

MRT 122 Principles of Radiographic Exposure II 2 Credits
Expands on the variables that affect the radiographic image. Understanding of these critical factors allows for adaptation for procedures involving pediatric patients, mobile radiography patients, and atypical adult patients. The student will also develop knowledge of digital imaging and tomography. (2 lec) **Prerequisite: MRT 121**

MRT 131 Medical Terminology 1 Credit
Presents a general study of medical terminology, focusing on definition by analysis of components, with emphasis on terminology encountered in the practice of medical radiography. (1 lec)

MRT 151 Introduction to Health Care 2 Credits
Discusses the radiographer's role in caring for the needs of the ill or injured patient undergoing radiographic examination. Acquaints the student with the principles of medical ethics and the responsibilities of the allied health professional. Introduces body mechanics, medical aseptic technique, first aid, observation of vital signs, management of medical emergencies in the radiology department, and basic care of special and surgical patients. (2 lec) **Prerequisite: Admission to the Medical Radiography program**

MRT 161 Clinical Education I 5 Credits
Introduces students to the clinical area. The lecture portion of the course acquaints students with hospital, department, and program policies and procedures, as well as familiarizes them with image evaluation, and provides basic instruction in radiation protection. The clinical portion acquaints the student with room preparation, body mechanics, patient positioning, radiographic procedures, imaging processing, and interaction with patients. Students begin the semester by observing procedures and assisting the radiographer with aspects of the procedure that have been presented in the classroom. Clinical rotations correlate with didactic education and focus on basic procedures involving radiographic positioning of the chest, abdomen and extremities; basic bedside radiography; fluoroscopy; body mechanics; medical ethics and patient care; image processing; departmental record-keeping; and medical computer usage. Students are exposed to the operating room to introduce them to radiography in a sterile environment. Students begin competency testing on basic procedures such as chest, abdomen, hand, and wrist. (2 lec, 14 lab) **Prerequisite: Admission to Medical Radiography program**

MRT 162 Clinical Education II 5 Credits
Encourages students to take a more active role in basic radiographic procedures, emphasizing technique-selection, radiographic positioning, explanation of procedures to the patients, and clerical tasks associated with radiography. Students begin taking a participatory role in operating room procedures and neonatal special care radiography. The scope of procedures expands to include

the thoracic cage, pelvic girdle, spine, and all parts of the skull. In fluoroscopy assignments, students take a more active role in gastrointestinal and barium enema procedures, and expand their participation in procedures such as myelography, cystography, arthrography, and endoscopic studies. Students continue competency testing in basic procedures such as stretcher chest, pediatric chest, extremities, pelvis and lumbar spine. To verify continued competency, students are retested over a competency exam successfully passed the previous semester. (1 lec, 15 lab) **Prerequisites: MRT 111, MRT 117, MRT 121, MRT 161; Pre- or Co-requisite: MRT 131 or BMT 111**

MRT 163 Clinical Education III **5 Credits**
Allows students to continue gaining proficiency in procedures and positions, and gives them the opportunity to put into practice radiographic exposure principles presented in the first two semesters of the program. The scope of the procedures expands to include cranial and trauma radiography, and procedures performed on the panorex unit. A C-arm inservice is presented, and students continue supervised participation in surgical and non-surgical procedures. Students perform competency testing in procedures such as hip, forearm/elbow, shoulder, lower leg, erect and decub abdomen, c-spine or t-spine, digital fluoro, and UGI series. To verify continued competency, students are "retested" over two competency exams successfully passed in previous semesters. (2 lec, 38 lab) **Prerequisites: BIO 122, MRT 112, MRT 118, MRT 122, MRT 162**

MRT 164 Advanced Clinical Education II **1 Credit**
Provides supplementary clinical experience to motivated first-year radiography students as they begin taking a more active role in radiographic procedures. **This course may be taken multiple times for credit**. (0 lec, 4 lab) **Prerequisites: MRT111, MRT117, MRT121, MRT151, MRT161; Co-requisite: MRT162 or MRT163**

MRT 211 Radiographic Positioning III **1 Credit**
Expands on **MRT 111, Radiographic Positioning I**, with emphasis on analysis and comparison of various positions and on positioning of non-routine and trauma views. (1 lec). **Prerequisite: MRT 111**

MRT 212 Radiographic Positioning IV **1 Credit**
Expands on **MRT112, Radiographic Positioning II,** with emphasis on analysis and comparison of various positions, and on positioning of non-routine and trauma views. (1 lec) **Prerequisite: MRT 112, MRT 117**

MRT 219 Imaging Modalities **1 Credit**
Acquaints current and potential radiography students with modalities other than diagnostic imaging. Topics include, but are not limited to, sonography, nuclear medicine, radiation oncology, and magnetic resonance imaging (MRI). (1 lec) **Prerequisite: BIO 121/122**

MRT 222 Principles of Imaging Physics **1 Credit**
Reviews the basic exposure principles presented in the first year of the program and emphasizes the practical applications of these principles. This course expands student knowledge of radiographic equipment as it relates to

fluoroscopic imaging. This course acquaints students with quality assurance within the radiography department. (1 lec, 1 lab) **Prerequisites: MRT 122. Pre- or Co-requisite: PHY 235**

MRT 230 Radiology Review and Career Planning **1 Credit**
Prepares the senior radiography student to enter the field of radiology as a profession. Topics such as test taking strategies, resume writing, job applications and interviews are briefly discussed. Several Mock Registry Exams will be administered and reviewed with students in preparation for the American Registry for Radiologic Technologists (ARRT) Certification Examination. (1 lec) **Prerequisites: MRT 122, MRT 211, MRT 219, MRT 251, MRT 255, BIO 272. Co-requisites: MRT 212, MRT 222, PHY 235 or permission**

MRT 251 Advanced Health Care **1 Credit**
Provides students with advanced patient care methods. Focuses on drug administration and phlebotomy, EKG testing, and emergency medical care for trauma patients. A review of medical ethics is discussed. (1 lec) **Prerequisite: MRT 151**

MRT 255 Pathology **1 Credit**
Explores physiological changes which occur as the result of disease and injury. Focuses on the radiographic manifestations of such changes and discusses the importance of those skills required to produce radiographs which demonstrate the disease or injury. (1 lec) **Prerequisite: BIO 122, MRT 112**

MRT 261 Clinical Education IV **6 Credits**
Advances students into areas of less direct supervision and more independent performance, based upon demonstration of competence. Emphasis is placed on refinement of skills in routine areas and involvement in non-routine procedures and situations, with students expected to offer proposals for compensatory measures. After course instruction in related imaging modalities (MRT 219, Imaging Modalities), students begin clinical rotations through those areas. Competency testing continues on procedures such as humerus; patella knee views; trauma shoulder, hip and extremity; portable abdomen, extremity, and pediatric chest; pediatric extremity; c-spine or t-spine; small bowel and barium enema series; and headwork exams of panorex mandible and orbits. To verify continued competency, students are “retested” over two competency exams successfully passed in previous semesters. (24 lab) **Prerequisite: MRT 163**

MRT 262 Clinical Education V **7 Credits**
Allows students to work on skills refinement of routine procedures, and provides increased participation in radiography of the atypical patient. Students continue rotations in related imaging modalities. Students participate in electrocardiography, phlebotomy, and observation and documentation of vital signs at a clinical affiliate. Competency testing continues on procedures such as trauma extremity, c-spine and a multiple trauma procedure; surgical spine and extremity; c-arm procedure; sinuses, ribs and femur; vital signs and venipuncture. To verify continued competency, students are “retested” over two competency exams successfully passed in previous semesters. (27 lab) **Prerequisites: MRT 219, MRT 251, MRT255, MRT 261 or MRT 267**

MRT 264 Advanced Clinical Education V **1 Credit**
Provides supplementary clinical experience to motivated second-year radiography students as they work on skill refinement of routine procedures and radiography of the atypical patient. **This course may be taken multiple times for credit.** (4 lab) **MRT211, MRT219, MRT251, MRT 255, MRT261; Co-requisite: MRT262 or MRT265**

MRT 265 Clinical Education VI **3 Credits**
Provides the student with the opportunity to clarify all theory presented in the classroom, and to gain self-confidence. Students continue rotations through related imagining modalities. Competency testing finalizes with headwork examinations over facial bones, skull, and mandible. To verify continued competency, students may be "retested" over two competency exams successfully passed in previous semesters. (40 lab) **Prerequisite: MRT 222 and MRT 262**

MRT 267 Clinical Education IV **7 Credits**
Advances students into areas of less direct supervision and more independent performance, based upon demonstration of competence. Emphasis is placed on refinement of skills in routine areas and on involvement in non-routine procedures and situations, with students being expected to offer proposals for compensatory measures. After course instruction in related imaging modalities (MRT 219, Imaging Modalities), students begin clinical rotations through those areas. Competency testing continues on procedures such as humerus; patella knee views; trauma shoulder, hip and extremity; portable abdomen, extremity, and pediatric chest; pediatric extremity; c-spine or t-spine; small bowel and barium enema series; and headwork exams of panorex mandible, facial bones and orbits. To verify continued competency, students are "retested" over two competency exams successfully passed in previous semesters. (27 lab) **Prerequisite: MRT 163**

MRT 268 Clinical Education V **9 Credits**
Allows students to work on skills refinement of routine procedures and provides increased participation in radiography of the atypical patient. Students continue rotations in related imaging modalities. Students participate in electrocardiology, phlebotomy, and observation and documentation of vital signs at a clinical affiliate. Competency testing continues on procedures such as trauma extremity, c-spine and a multiple trauma procedure; surgical spine and extremity; c-arm procedures; mandible, skull and sinuses; ribs and femur; vital signs and venipuncture. To verify continued competency, students are "retested" over two competency exams successfully passed in previous semesters. (35 lab) **Prerequisites: MRT 219, MRT 251, MRT 255, MRT 267**

MUS 123 Understanding Music **3 Credits**
Introduces students to the fundamentals of music theory, history, and composition by examining how music was and is composed through a variety of historical periods. Will include a study of major composers and musical works from the Middle Ages to today. Will fulfill the general education requirement for an elective 100-level course in Humanities. (3 lec)

NRG 111 Dose Calculation **1.5 Credits**
Provides instruction in the calculations required for the mathematical component of drug administration. It begins with a review of basic mathematics. This is followed by content addressing the computation of drug dosages for medications administered by a variety of routes. Throughout, emphasis is placed upon the language of prescriptions; interpretation of medication orders and drug labels; selection of administration equipment; and avoidance of medication administration errors. (1.5 lec)

NUR 105 Foundations of Nursing **8 Credits**
Introduces the role of the nurse as a member of the health care team. Student learning focuses on the Nursing Process as it addresses basic human needs, and stresses the impact of culture, values and beliefs, and internal and external stressors on health and illness. Principles of nutrition, communication, pharmacology, and teaching-learning are integrated. Selected clinical experiences expand upon laboratory learning of basic nursing skills. (5 lec, 8 clinical) **Prerequisite: Admission to Nursing program** - **Prerequisites: BIO 121, BIO 124; Co-requisites: BIO 122, BIO 126**

NUR 107 Introduction to the RN Role **1.5 credits**
This course addresses the role transition from Licensed Practical Nurse (LPN) to Associate Degree Nurse (ADN). Course content includes the nursing process and physical assessment in both class and lab settings. Prerequisites: successful completion of a Practical Nursing (PN) Program, current licensure as a Practical Nurse (LPN) and admission to the ADN program.

NUR 136 Nursing Across the Lifespan I **10 Credits**
Provides the knowledge and skills necessary to care for individuals experiencing alterations in meeting their basic human needs as they relate to medical-surgical system alterations and mental health issues. Students use a family-centered approach in caring for individuals across the lifespan and explore preventive maintenance and restorative nursing interventions within the nursing process framework. This course applies basic knowledge learned in NUR 105, Foundations of Nursing, along with nutrition, pharmacology, communication skills, psychology and teaching-learning principles. Classroom content correlates with selected learning experiences in structured health care settings. (6 lec, 12 clinical) **Prerequisites: NUR 105 or NUR 107 (for advanced placement students only), BIO 122, BIO 126, and BIO 251**

NUR 267 Nursing Across the Lifespan II **8 Credits**
Prepares the nursing student to function as an effective nurse generalist using a family-centered approach to health care. Emphasizes the collaborative care and management of patients with a focus on neurological, cardiovascular, maternal-newborn, and pediatric nursing. Uses the nursing process and critical reasoning to guide therapeutic nursing interventions. Principles of nutrition, communication, pharmacology, and teaching-learning are integrated. Provides correlative clinical and laboratory experiences that enable students to apply theory and perform skills under supervision of nursing faculty in acute care settings. (5 lec, 12 clinical) **Prerequisites: NUR 136; Pre- or Co-requisites: NUR 291 & BIO 216**

NUR 270 Nursing Across the Lifespan III **8 Credits**
Emphasizes nursing responsibility in the care of clients with multiple and complex health issues. The nurse's role and responsibility in emergency and disaster situations are outlined. The importance of positive end of life care is stressed. The impact of life style choices and culture in relationship to health care and the client's health care choices will be discussed. This course ends with several multi-problem case studies using both small group classroom work and interactive mannequin skills practice. Clinical experiences include a short preceptorship and practice of management skills in local health care facilities. (5 lec, 12 clinical) **Prerequisite: NUR 267, BIO 216; Co-requisite: NUR 282**

NUR 281 Professional Issues I **1 Credit**
This advanced nursing course is an introduction to the professional issues of nursing leadership and management. The nursing roles of leader, manager, educator, clinician, researcher and mentor will be explored. Students will use computer technologies to enhance the development of project management skills. Teaching methods include case study reviews, lecture, group discussions and project development and simulations. (1 lec) **Prerequisites: Admission to the Nursing program and successful completion of NUR 136, or by permission of Director**

NUR 282 Professional Issues II **1 Credit**
Continuing with the themes explores in **NUR 281** and expanding the practice framework, this course focuses on the entry into professional nursing and role transition. Emphasis is on nurse's role as a member of the healthcare team in ethical-legal issues in professional practice, including safety, delegation, and prioritization; and political-economic issues. (1 lec) **Prerequisites: NUR 267, NUR 281; Co-requisite: NUR 270**

NUT 221 Nutrition **4 Credits**
Through a combination of lecture, class discussions, cooking labs and project presentations, students will learn the role of nutrition in culinary arts. (3 lec, 2 lab)

PED 115 Development and Guidance of Behavior **3 Credits**
Reviews the social and emotional development of school age children and the principles for understanding and guiding behavior. Dealing with challenging behaviors will be explored. Topics will include proactive positive behavior management, functional behavior assessment, and the acquisition and support of social skills. (3 lec) **Prerequisite: ECE 110, ECE 117 or permission**

PED 117 Working with Students in Language and Literacy **3 Credits**
Designed to provide an overview of literacy and language development of school aged children. Topics include assessment of literacy, language development, phonemic awareness, multisensory instruction and guided reading instruction. All aspects of literacy development including listening, speaking, reading and writing will be emphasized. (3 lec) **Prerequisite ECE 110 or permission**

PED 118 Working with Students in Science and Math 3 Credits
Examines various methods of working with students in the math and science curriculum areas. Discussion of best practice and making appropriate accommodations for exceptional learners will occur. Students will practice writing objectives, examine assessment strategies and engage in hands on learning activities in these content areas. Students will explore the process of scientific inquiry, critical thinking and how to apply these educational practices. (3 lec) **Prerequisite: ECE 110 or permission**

PED 213 Working with Students with Autism 3 Credits
Examines Autism Spectrum Disorder. This history of autism will be reviewed as well as current practices in making appropriate diagnosis of this exceptionality. Strategies for supporting development and learning in all domains will be explored. An emphasis will be placed on social skills and language development. Various educational techniques will be explored. (3 lec) **Prerequisite: ECE 216 or permission**

PED 223 Working with Students with Learning Disabilities 3 Credits
Looks at the most common disability in today's educational settings. Students will learn to recognize students with specific learning disabilities, become sensitive to their needs and provide appropriate learning opportunities for these students. (3 lec) **Prerequisite: ECE 216 or permission**

PED 232 Field Experiences in Elementary, Middle, or High School II 4 Credits
Designed to bridge theory with practice. Students will apply strategies and methods learned in class to the practice of planning for and working with learners in educational settings. Students will work with children of diverse ages, cultures and abilities and begin to develop appropriate learning activities for individual or groups of students. (2 lec, 2 practicum) *Must achieve a grade of C or better to continue with Field Placement III. Open only to students matriculated in the Education program.* **Prerequisite: ECE 117.**

PED 233 Field Experiences in Elementary, Middle, or High School III 5 Credits
Expands on competencies acquired in Field Placement II by allowing students to further develop skills in planning and implementing appropriate educational experiences for individuals. Students will increase their responsibilities for supporting learners in educational settings. Students will practice reflective teaching and focus on becoming an effective team member in the classroom environment. (2 lec, 3 practicum) *Must achieve a grade of C or better to pass this course.* **Prerequisite: PED 232.**

PHI 101 Ethics 3 Credits
Focuses on justifiable parameters for making ethical decisions. Introduces the history of ethical thinking and decision making. Utilizes case study and team format to explore and discuss ethical thinking and choosing. Provides a three-part framework for critical thinking and choosing when faced with ethical dilemmas. (3 lec)

PHI 105 Comparative World Religions **3 Credits**
Introduces major religions of the world with a view of their theological perspectives and their mythologies, and their history and relationships to one another. Discusses religions' impact on the global community as well as their role in the lives of the faithful. Religions included in the course are: animism, ancestor worship, nature faiths to the regions of the Indus Valley, Hinduism, Buddhism, Sikhism, Jainism, Judaism, Christianity, and Islam. (3 lec)

PHI 291 Topics in Philosophy **3 Credits**
Focuses on a different topic each time it is offered. Can be taken more than once. (3 lec)

PHY 108 Survey of Applied Physics **4 Credits**
This is a one-semester overview of general physics. Major topics include mechanics, energy and motion, simple machines, fluid flow, temperature and thermal expansion, electricity and magnetism. This is a laboratory course emphasizing hands-on learning and problem solving techniques. (3 lec, 2 lab) **Prerequisite: MAT 113, or permission**

PHY 109 Concepts in Physics **4 Credits**
Emphasizing concepts, this course consists of a Newtonian core following by modern post-Newtonian ideas and societal issues. Demonstrations and laboratory exercises are integrated with traditional lecture/discussion, outside readings, and homework. This course satisfies a general education laboratory science requirement. (3 lec, 2 lab)

PHY 118 Independent Study in Physics **1 Credit**
An independent study. Topics covered will be material not included in PHY 108. Course is a supplement to the PHY 108 course that will allow students with a particular interest to go beyond the topics covered in the PHY 108 course. Topics included: light and optics.

PHY 121 Physics I **3 Credits**
The first of a two-semester sequence, this course stresses the qualitative and quantitative aspects of vector analysis, kinematics, dynamics, energy concepts, and includes an introduction to thermodynamics. Particular topics include projectile motion, circular motion, simple machines, thermal properties of matter, and heat transfer. (3 lec, 0 lab) **Prerequisite: A functional knowledge of algebra and trigonometry is required. A grade of C or better in MAT 119 and MAT 120 is recommended; Co-requisite: PHY 122**

PHY 122 Physics I Laboratory **1 Credit**
Reinforces topics covered in **PHY 121, Physics I**. (2 lab)
Co-requisite: PHY 121

PHY 123 Physics II **3 Credits**
The second of a two-semester sequence, this course stresses the qualitative and quantitative aspects of vibrations and waves, electricity and magnetism, and early quantum theory. Particular topics include mechanical waves, sound, light,

optics, DC and AC circuits and basic atomic structure. (3 lec) **Prerequisite: PHY 121 with a grade of C or better. Co-requisite: PHY 124**

PHY 124 Physics II Laboratory **1 Credit**
Reinforces topics covered in **PHY 123, Physics II**. (2 lab) **Co-requisite: PHY 123**

PHY 235 Radiologic Physics **3 Credits**
Encompasses an overview of classical physics plus a number of topics specifically directed to the radiographic technician. Topics will include measurements of matter and energy; mechanical and electrical work, power, and energy; DC and AC circuits; x-ray machine circuitry; and photon/matter interactions**. Prerequisites: MAT119 and High School Physics or PHY108 or PHY 109**

PSY 101 Introduction to Psychology **3 Credits**
Introduces the major areas of contemporary psychology, including research methods, physiological psychology, perception, consciousness, learning, development, intelligence, and abnormal behavior. (3 lec)

PSY 211 Human Relations **3 Credits**
Provides skills-based training, focusing on assertiveness, empathic listening and responding, sending and receiving clear messages, flexing to different styles, adapting tasks to include motivational strategies, praising and critiquing, transactional analysis, and effectively dealing with defense mechanisms and groupthink. (3 lec) **Prerequisites: ENG 101 and PSY 101 desired; course not recommended as a first-semester course**

PSY 214 Teams - Principles and Practices **3 Credits**
Explores and applies the psychological and practical applications of team building principles. Also examines current concepts in leadership skills as applied to teamwork. Included topics are group dynamics, problem analysis and problem solving tools, effective communications in a group setting, leadership tools, consensus, and facilitation skills. The course utilizes self-directed and cross functional teams, resulting in a 'teams teaching teams' format. **Prerequisites: PSY 101 or PSY 211 recommended; senior status recommended**

PSY 231 Developmental Psychology **3 Credits**
Introduces theories and principles of development in psychology, emphasizing human socio-emotional and cognitive development from birth to death. (3 lec**) Prerequisite: PSY 101**

RAH 103 Refrigeration and Air Conditioning Lab I **2 Credits**
Applies theories gained from **RAH 113, Refrigeration Components & Physical Principles; RAH 123, Refrigeration Systems and Flow Controls;** and **RAH 133, RAH Electricity I.** Affords opportunities to fabricate and troubleshoot small commercial refrigeration units in the laboratory environment. 15-Week Course 6 lab)

RAH 104 Refrigeration and Air Conditioning Lab II 2 Credits
Expands on the procedures developed in **RAH 103, Refrigeration and Air Conditioning Lab I,** and integrates principles from electrical and refrigeration theory courses **RAH 133 RAH Electricity I; RAH 144 Commercial Refrigeration Systems I;** and **RAH 147 Commercial Refrigeration Systems II.** Students lay out and install commercial refrigeration systems. 15- Week Course (6 lab) **Prerequisite: RAH 103**

RAH 113 Refrigeration Components and Physical Principles 2.5 Credits
Introduces the physical principles related to the refrigeration cycle, including pressure, work, power, energy, heat, temperature and the gas laws. The course emphasizes the infraction of compressor, condensers, evaporators, and metering devices in refrigeration systems. 7.5 week course (8 lec, 0 lab)

RAH 123 Refrigeration Systems and Flow Controls 2.5 Credits
Continues the focus on refrigeration systems and applications covered in **RAH 113 Refrigeration Components and Physical Principles,** and explores refrigeration system flow controls and pressure enthalpy diagrams and properties of refrigerants 7.5 week Course (8 lec) **Prerequisite: RAH 113**

RAH 133 RAH Electricity I 3 Credits
Studies atomic theory, series, parallel and series-parallel circuits while considering basic A.C. theory, electrical power distribution systems, electric controls, and schematic diagrams. 15- Week Course (3 lec, 1 lab)

RAH 138 RAH Electricity II and Motors 3 Credits
Surveys AC Circuits for refrigeration, air conditioning and heating systems and the operation, installation and troubleshooting of the following devices: AC single and three-phase motors and motor starting components, temperature and pressure controls. Additional topics include wire and conduit-sizing and over current protection devices. 15 week course (3 lec, 1 lab) **Prerequisite: RAH133**

RAH 144 Commercial Refrigeration Systems I 2.5 Credits
Introduces the specific components that comprise a commercial refrigeration system, including the procedures for refrigeration piping lay-out, sizing calculations, and system troubleshooting. The course also covers the application and installation of the different types of evaporators. 7.5-week course (8 lec) **Prerequisite: RAH 123**

RAH 147 Commercial Refrigeration Systems II 2.5 Credits
Focuses on the operation and application of condensers and refrigeration heat exchangers and explores the internal construction and operation of reciprocating, screw, and centrifugal compressors and the different methods of compressor lubrication. The course also reviews defrost methods, refrigeration service, and maintenance procedures required to insure an energy efficient system. 7.5 week course (8 lec) **Prerequisite: RAH 144**

RAH 203 Refrigeration and Air Conditioning Lab III 2 Credits
Continues refrigeration and electrical troubleshooting skills developed in **RAH 104, RAH Lab II.** Students lay out, install, and service a variety of heat pumps

and gas and oil-fired heating equipment. 15 week course (6 lab) **Prerequisite: RAH 104**

RAH 204 Refrigeration and Air Conditioning Lab IV 2 Credits
Strengthens the troubleshooting skills, knowledge of control circuits, and service techniques from **RAH 103 RAH Lab I; RAH 104, RAH Lab II**; and **RAH 203 RAH Lab III.** In addition, students lay out, install, and operate commercial RAH equipment and control systems. 15 week course (6 lab) **Prerequisite: RAH 203**

RAH 234 RAH Controls I 3 Credits
Explores controls, diagrams, and circuits found in HVAC and Refrigeration applications. Topics include flame safeguard controls, motor protection, and other electronic control devices. 15 week course (3 lec, 1 lab) **Prerequisite: RAH138**

RAH 237 RAH Controls II and Transformers 3 Credits
Studies the construction and operation of HVAC and Refrigeration control systems and transformers. Students develop diagrams, wire and operate laboratory projects using electrical and electronic controls. 15 week course (2 lec, 2 lab) **Prerequisite: RAH234**

RAH 264 Heat Pump Systems 2 Credits
Studies the operation and installation of the different types of heat pumps. In addition, the course covers the function of electrical and mechanical components and techniques for servicing heat pumps. 6 week course (8 lec) **Prerequisites: RAH 144 and RAH 147**

RAH 272 Gas Heating Systems 3 Credits
Focuses on the installation and servicing of gas-fired boilers and furnaces. This course includes the National Propane Gas Association CETP modules to meet education requirements for State of Maine propane and natural gas licenses. 9-week course (8 lec) **Prerequisite: RAH 264**

RAH 283 HVAC Systems I 2.5 Credits
Studies the operation, troubleshooting and servicing of oil burners and efficiency testing of oil heating systems. In addition, the course provides an overview of the theory, operation, and applications for HVAC systems. The student studies the different types of fans, pumps, duct systems, piping systems and other components found on HVAC systems. 7.5-Week Course (8 lec) **Prerequisites: RAH 264 and RAH 272**

RAH 287 HVAC Systems II 2.5 Credits
Builds on RAH 283 HVAC systems I, as it relates to energy efficient operation, maintenance, and troubleshooting of commercial HVAC systems. The student applies the procedures or startup, testing, adjusting, and balancing of air delivery, hydronic piping, heating and cooling systems. In addition, the student is exposed to component layout, system design and psychrometric applications for HVAC systems. 7.5 week course (8 lec) **Prerequisite: RAH 283**

SOC 101 Introduction to Sociology **3 Credits**
Examines the major perspectives of sociology. Attention is given to such concepts as society, culture, role, status, institution, social organization, social change, social control, deviance, socialization, and the dialectical relationship between individual and society. (3 lec)

SOC 151 Environment and Society **3 Credits**
Introduces students to the concepts of ecology and ecosystems, the historical roots of the environmental movement, and some of the major environmental philosophies, including sustainable development, environmental economics, deep ecology, as well as the cornucopian view that human ingenuity and technology can overcome, environmental problems. Covers and debates current natural resource issues including air and water quality, population, energy production, food production, fisheries, land use, habitat loss, the impacts of technology, waste disposal and environmental justice. Local, national, and global issues will be covered. (3 lec)

SOC 201 Understanding the Family **3 Credits**
Discusses the family as it impacts the development of young children, examines implications of behavior patterns and explores behavior management techniques which respect the family system. Students will learn skills to facilitate communication and to support families. 15-week course (3 lec) **Prerequisites: ECE 110, SOC 101**

SOC 214 Contemporary Social Problems **3 credits**
An overview of contemporary social problems focusing on literature of local and global social problems with an effort made to address possible solutions. (3 lec) **Prerequisite: SOC 101**

SPE 101 Oral Communication **3 Credits**
An experiential learning class in which students learn how to be effective public speakers. Topics include audience identification, topic development, purpose recognition, delivery, outlining and use of notecards, use of props/visuals/technology, overcoming public speaking fears, and the importance of non-verbal communication and signals. (3 lec)

SUR 105 Introduction to Surgical Technology **7 Credits**
Introduces the broad field of surgical technology and the basic principles of aseptic techniques and patient care. Students will be expected to demonstrate safe and proper application of procedures and use of equipment. (4 lec, 6 hrs. clinicals) **Prerequisite: Admission to Surgical Technology program.**

SUR 114 Surgical Technology I **15 Credits**
Focuses on using basic surgical anatomy, instrumentation and procedural steps in the general surgical, obstetrics-gynecology, and orthopedic surgical areas. Takes place in clinical settings. Competence will be assessed for each specialty area. The student observes surgical procedures and applies his or her classroom knowledge to the clinical situation under supervision. (60 lecture hrs, 540 lab hrs) **Prerequisite: SUR 105**

SUR 117 Pharmacology for Surgical Technologists 2 Credits
Includes basic measurements with math review, nomenclature, dosage, and drug calculations. Stresses safe handling procedures for drugs and solutions, principals of drug use and care of surgical patients. Discusses anesthesia, fluids and electrolytes. (2 lec)

SUR 123 Surgical Technology II 16 Credits
Focuses on using basic surgical anatomy, instrumentation and procedural steps in the genitor-urinary, otolaryngology, eye, plastic and reconstructive, neurosurgery, vascular, and cardiovascular-thoracic areas. Takes place in clinical settings. Competence will be assessed for each specialty area. Students will be assigned to each of the ten surgical services. They will perform scrub and circulating duties at the discretion of the instructors and operating room staff nurses. Students attend both formal and informal classes as well as operating room in-service programs. (90 lecture hrs, 480 lab hrs) **Prerequisite: SUR 114**

WEL 111 Metal Technology 3 Credits
Offers the student the opportunity to develop skills in recognizing concepts of composition, strength and application of metals, and the reaction of metals to each other. Methods of identifying and utilizing different metals in various welding processes will be stressed. 15 week course. (3 lec) **Prerequisite: Admission to the Welding Program or permission**

WEL 131 Shielded Metal Arc Welding (SMAW), Basic 2 Credits
Provides the student with the opportunity to develop attitudes in welding safety, skills in arc welding fundamentals, operation of welding machine power sources, and accessories, electrode classification and selection, and welding fillet gauge use. It provides training for skill development necessary to make welds in all positions using E6010 electrodes. An introduction to E7018 low hydrogen electrodes is also included. 4-week course (80 hr) **Prerequisite: Admission to the Welding Program or permission**

WEL 132 Shielded Metal Arc Welding (SMAW), Advanced I 2 Credits
Provides the student with the opportunity to develop skills making multi-pass fillet welds on inside corner joints. It also provides training to develop the manual skills necessary to make quality stringer and weave beads in all positions using 5/32" diameter E6010 and E7018 electrodes on 3/8" mild steel plate. The safe use of oxygen and acetylene flame cutting equipment using manual operations and techniques is also introduced. 4-week course (80 hr) **Prerequisite: WEL 131**

WEL 133 Shielded Metal Arc Welding (SMAW), Advanced II 2 Credits
Offers the opportunity to develop skills necessary to produce quality open root single v-groove welds on 3/8" thick mild steel plate. This procedure uses 1/8" diameter E6010 electrodes for the open root pass, 3/32" diameter E7018 electrodes for filler passes and 1/8" diameter E 7018 electrodes for cover passes. The welding positions included are the 2G horizontal, 3G vertical and 4G overhead. Weld quality will be validated utilizing guided bend tests. 3-week course (60 hr) **Prerequisite: WEL 151**

WEL 134 Shielded Metal Arc Welding (SMAW), Structural 2 Credits
Introduces the student to requirements of the American Welding Society, Structural Welding Code D1.1 and AWS 3-89 Standard for AWS Certified Welders. The student has the opportunity to develop skills to make quality groove welds on 3/8" thick plate steel with backing strap, using 1/8" diameter E7018 electrodes in the 2G (horizontal), 3G (vertical up), and 4G (overhead positions). 4-week course (80 hr) **Prerequisite: WEL 132**

WEL 135 Shielded Metal Arc Welding (SMAW), Pipe I 2 Credits
Offers the student the opportunity to develop skills in pipe nomenclature, weld quality, uphill pipe procedures, preheating and inter-pass temperatures. It offers training to develop the manual skills necessary to perform proper joint fit-ups and tacking procedures. It also offers the opportunity to develop skills to produce quality multi-pass welds on five (5) inch diameter, schedule 40, mild steel pipe in the 2G horizontal and 5G vertical up positions, using E6010 electrodes for the open root, fillers, and cover passes. 4-week course (80 hr) **Prerequisite: WEL 133**

WEL 136 Shielded Metal Arc Welding (SMAW), Pipe II 2 Credits
Offers the student the opportunity to develop skills in pipe welding, determination of weld quality, uphill pipe procedures and applying and maintaining preheat and inter-pass heat treatments. This manual skill development is necessary to produce quality multi-pass welds on 5" diameter, schedule 40, mild steel pipe in the 2G horizontal and 5G vertical up positions using 1/8" diameter E6010 electrodes for the open root, 3/32" E7018 fillers and cover passes. Weld quality will be determined by using the visual and guided bend test. 4-week course (80 hr) **Prerequisite: WEL 135**

WEL 137 Shielded Metal Arc Welding (SMAW), Pipe III 2 Credits (ASME Qualification)
Offers the student the opportunity to develop the manual skills necessary to produce quality multi-pass welds on 5" diameter, schedule 80, mild steel pipe, using 1/8" E6010 roots and 3/32" E7018 fill and cover passes in the 45-degree 6G fixed position. It offers the student training to qualify as a welder in accordance with Section 4, Maine Boiler Rules, and ASME Boiler and Pressure Vessel Code, Section IX for welder qualifications. 4-week course (80 hr) **Prerequisite: WEL 136**

WEL 151 Flux-Cored Arc Welding (FCAW) 2 Credits
Provides the student with the opportunity to develop skills using the semi-automatic flux-cored arc welding process. Emphasis on the proper use of semi-automatic equipment, operations, machine adjustments and recognition of weld quality will be introduced. It provides training to develop the manual skills to make quality multi-pass welds in all positions, using 3/8" and 1" thick steel plate. Air carbon arc gouging is also a process that is briefly introduced. 3 week course (60 hr) **Prerequisite: WEL 134**

WEL 161 Welding Fundamentals 1 Credit
A comprehensive introduction to welding technology and applications. Welding and related tool use safety applications and personal protective equipment (PPE) are demonstrated, practiced and emphasized. Fundamentals of Shielded Metal

Arc Welding (SMAW), Gas Metal Arc Welding (GMAW) and Gas Tungsten Arc Welding (GTAW) processes and their applications are introduced, demonstrated and practiced. Cutting processes are introduced and demonstrated. Quality standards and codes are introduced. (15 hr)

WEL 186 Blueprint Reading and Drafting for Fitters and Welders 3 Credits
Teaches the meanings of views, lines, sizes, dimensions, and welding terms; emphasizes welding symbols and blueprint reading; and develops basic drawing skills by means of practice with these symbols and with basic orthographic projection exercises. (2 lec, 2 lab) **Prerequisite: Admission to the Welding Program or permission**

WEL 222 Quality Assurance/Quality Control 4 Credits
Develops skill in the recognition and application of quality standards in the technical field of welding. Information is presented to explain the relationship between cost and weld quality and the necessary elements that must be considered to develop a quality assurance and quality control program. Development of welding procedures, qualification of procedures, the technical representation of welding discontinuities and defects, and destructive and non-destructive testing are also introduced. 15 week course (90 hr) **Prerequisite: WEL 111**

WEL 265 Gas Metal Arc Welding (GMAW), Basic 1 Credit
Provides the student with the opportunity to develop skills in welding safety, gas metal arc welding fundamentals, gas metal arc equipment and adjustment, metal transfer and shielding gases. It also provides the student the opportunity to develop the manual skills necessary to make high quality **gas metal arc welds in** all positions on mild steel plate 1/16" to 3/8" thick, single and multipass welds, using the short circuit transfer method using ER 7053 filler wire. 2-week course (40 hr) **Prerequisite: Admission to the Welding Program or permission**

WEL 267 Gas Metal Arc Welding (GMAW), Advanced 1 Credit
Offers the student the opportunity to develop skills and proper attitudes in welding safety and the gas metal arc welding process of aluminum using 5356 plate and 4043 and 5356 wire. Also covered is the flux core arc welding of stainless steel utilizing E309L-T x .035 or .045 diameter wire. Instruction includes fundamental types of equipment and the basic theory and practice of metal transfer. This course offers training to develop the manual skills necessary to produce quality fillet welds on .125, .250 and .375 thick aluminum, stainless or mild steel plate in all positions. 2-week course (40 hr) **Prerequisite: WEL 265**

WEL 269 GMAW Pipe 1 Credit
Offers the student the opportunity to develop skills in gas metal arc welding of pipe, the proper preparation for welding pipe and the recognition of pipe welding defects. It offers training to develop skills necessary to produce quality groove welds on 6” diameter, schedule 40, mild steel pipe in the 2G, 3G and 6G positions using ER 70-S6 filler wire. 2 week course. (40 hr) **Prerequisite: WEL 137**

WEL 270 GTAW Basic **2 Credits**
Offers the student the opportunity to develop attitudes in welding safety and skills in gas tungsten arc welding fundamentals, recognition of arc characteristics and to make quality welds in all positions on 16 and 11 gauge mild steel, stainless steel and aluminum plate. This course reviews the characteristics of mild steel, stainless and aluminum place and includes an introduction to aluminum pipe welding. 3 week course (60 hr) **Prerequisite: FIT 235**

WEL 277 Gas Tungsten Arc Welding (GTAW), Pipe I **2 Credits**
Offers the student the opportunity to develop skills in the Gas Tungsten Arc Welding process for mild steel pipe. It develops the skills necessary to produce quality open root groove welds, on 5" diameter schedule 80 mild steel pipe in the 2G and 5G positions, walking the cup technique to deposit the root and hot pass, and the SMAW process with E7018 low hydrogen electrodes to complete the weld. An introduction to ER309 stainless steel welding in the 6G position is also presented. Weld quality will be validated using guided bend tests. 5-week course (80 hr) **Prerequisite: WEL 270**

WEL 278 Gas Tungsten Arc Welding (GTAW), Pipe II **2 Credits**
Offers the student an opportunity to develop skills in the GTAW process for small-diameter mild steel pipe. Training will be offered to produce quality open root, groove welds on 3-inch diameter schedule 40, and 2-inch diameter XX heavy wall mild steel pipe, in the 2G, 5G, and 6G positions. This course also provides the opportunity for skill development in walking the cup technique to deposit the root and hot passes and incorporating the SMAW process with E7018 low hydrogen electrodes for completing the weld. 5-week course (80 hr) **Prerequisite: WEL 277**

WEL 279 Gas Tungsten Arc Welding (GTAW), Pipe III **2 Credits**
Offers the student the opportunity to develop skills in the Gas Tungsten Arc Welding advanced procedures and preparation for welding stainless steel and aluminum pipe. This course prepares the student to produce quality groove welds on 4" diameter, schedule 5 to 10, and stainless steel pipe in the 2G, 5G, and 6G positions. The identification of pipe welding defects is also included. **Prerequisite: WEL 278**

ADMINISTRATION, FACULTY AND STAFF

MAINE COMMUNITY COLLEGE SYSTEM
John Fitzsimmons, President Maine Community College System 323 State Street - Augusta, ME 04330

BOARD OF TRUSTEES	
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Laurent Beauregard Maine Institute for Human Genetics & Health; 43 Whiting Hill Road, Suite 150 Brewer, ME 04412	**Tom Palmer** Black Bear Inn Orono, ME
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Paula Theriault St. Joseph Healthcare 360 Broadway Bangor, ME 04401	**Fred Woodman** United Technology Center 200 Hogan Road Bangor, ME 04401

EASTERN MAINE COMMUNITY COLLEGE
PRESIDENT'S CABINET

President, Lawrence M. Barrett
Academic Dean, Pamela Proulx-Curry
Dean of Communication and Information Technology, Timothy L. Conroy
Dean of Enrollment Management and Institutional Research, Daniel Crocker
Director of Finance, Eric MacDonald
Director of Institutional Advancement, Carol Anne Dube
Human Resources Director and Training Manager, Jody Boyd
Director of Student Life and Facilities Management, Daniel Belyea

EASTERN MAINE COMMUNITY COLLEGE
COLLEGE SENATE

Team Leader: Dan Crocker
Administration Representatives: Janet Blood, Elizabeth Worden
Confidential Employee Representative: Dan Crocker
Faculty Representatives: Lesley Gillis
Staff Representatives: Darlene Gladu, Dusty Packard-Adams, Debra Perro
Student Representatives: Zac Foster, Paige Nadeau
Recorder: Terri Adam

EASTERN MAINE COMMUNITY COLLEGE
Board of Directors

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Anthony DeFeo Community member	**Bob Platt** Bangor Hydro Electric
Emil Genest Hampden School Dept., SAD 22	**Shelly Sund** Bangor Daily News
David Simonds Attorney	**Ruth Kinne Dunbar** Bangor Savings Bank
Tammy Bryant Camden National Bank	

Full-Time Faculty

Thomas R. Amnotte **1983**
Instructor--Economics, Social Sciences
Master of Professional Studies in Agricultural & Resource Economics, University of Maine; B.S. in Electrical Engineering, Tufts University; State of Maine Certified Teacher; Certified Zenger-Miller Trainer; Certified National Quality Academy Trainer

Anna Arquette **2012**
Instructor – English
M.A. and B.A. in English, California State University; B.A.

Marleen Athorp **2004**
Instructor – Nursing (Maternal-Child Health)
M.S.N., University of Maine; B.S.N., University of Maine; Diploma of Nursing, Milwaukee County General School of Nursing; Certified in Low-risk Neonatal Nurse; International Board Certified Lactation Consultant

Armand Auclair **2012**
Instructor—Building Construction
NCCER Certified Building Construction Instructor; Lead Renovators Certificate, EPA Certified Lead Renovator; Repair and Paint Instructor; NCCER Certifiied Weatherization Technician Instructor

Priscilla T. Bisher **1995**
Instructor--Nursing
M.S. in Nursing, University of Oklahoma; B.S.N., D'Youville College; A.A. in Human Services, Vermont College

Troy Blodgett **2000**
Instructor—Computer Aided Drafting and Design
B.S. in Applied Technical Education, University of Southern Maine; A.A.S. in Building Construction, Southern Maine Technical College

Richard E. Brooker **1993**
Instructor—Computer Aided Drafting and Design
B.S. in Technical Education, University of Southern Maine; A.A.S. in Business Management, Eastern Maine Technical College

Kimberly J. Campbell **1998**
Instructor--Business Management
C.A.S. in Leadership in Higher Education, M.Ed. Educational Leadership, University of Maine; B.S. in Business Teacher Education, Husson College

Harold Casey **2010**
Instructor—Computer Systems
M.A. in Educational Leadership, Breyer State University; B.S. in Education, Breyer State University; A+ Certified Technician, Net+ Certified Technician; College State Director – SkillsUSA Maine

Roland W. Clukey **1998**
Instructor--Welding
Certified Welding Teacher, Professional Level, State of Maine Department of Education; Federal Nuclear Regulatory Commission Pipe and Structural Certifications; U.S. Navy Structural Certifications; SMAW Structural Certification AWS D1.1; State of Maine Boiler Certification – ASME Section IX, AWS Certified Welding Inspector, AWS Certified Welding Educator

Jay J. Demers, CHE, FMP **1998**
Department Chair, Instructor--Culinary Arts
B.S. in Business Administration, University of Maine; B.S. in Applied Technical Education, University of Southern Maine. Member - Golden Key National Honor Society. Baking and Pastry Arts, Johnson and Wales University. Certified Hospitality Educator, Food Management Professional, Certified in ServSafe Sanitation, Hospitality Purchasing Management, and Food and Beverage Management

William H. Dorrity III **1991**
Instructor, Business Management
Ph.D., Education Leadership, Northcentral University, Prescott, AZ; C.A.G.S. in Educational Leadership, University of New England; M.S. in Business Management, Husson College; B.S. in Business Administration, Husson College

Christopher M. Easton **2004**
Instructor—Biology
Ph.D. in Biological Sciences, State University of New York; M.S.(R) in Biology, Saint Louis University; B.A. in Biology, Colby College

Eugene S. Fadrigon **1988**
Department Chair, Instructor—Diesel, Truck & Heavy Equipment
B.S. in Applied Technical Education, University of Southern Maine; A.S., National Tech School, Los Angeles, CA; State of Maine Journeyman Heavy Equipment Mechanic Certificate; ASE Master Truck Certification; E3 ASE certified Auxiliary Power Systems Install/Repair Specialist; Cummins Certified Technician; Air Brake Certification; Detroit Diesel Certified Technician; Eaton Transmission certified; Hazard Communication Instructor; OSHA Certified; Maine State Police certified Inspection Mechanic in all classes A B C D E; NCCER Core Curriculum and Heavy Equipment Operations certified instructor

Robert Freeman **1999**
Instructor--Social Science
Ph.D. in Ecology and Environmental Science, University of Maine; M.S. in Resource Economics and Policy, University of Maine; B.A. in Economics and Sociology, Wofford College

Lowell Gardner **2007**
Instructor--Automotive
Matriculated Bachelor of University Studies, University of Maine. A.A.S., Automotive Technology, Eastern Maine Technical College. ASE Certified

Cynthia M. Geaghan **2003**
Instructor--Education
M.A. in Special Education, University of Maine; B.S. in Elementary Education, University of Maine at Farmington.

Lesley Gillis **2003**
Instructor--English
Ph.D. in English, McGill University; M.A., Case Western Reserve University; B.A., Bates College

John Goldfine **1987**
Instructor--English
M.A. in History, University of Maine; B.A. in English, Colby College

Richard J. Gomm **2010**
Department Co-Chair, Instructor—Refrigeration, Air Conditioning and Heating
A.A.S. in Refrigeration, Air Conditioning and Heating, Eastern Maine Technical College; EPA Refrigerant Certification; State of Maine Master Oil License; State of Maine Propane and Natural Gas License

Sally Hall **2009**
Department Chair, Instructor—Medical Assisting
B.A. in Medical Technology, University of Maine; ASCP certified in Medical Technology; CMA certified in Medical Assisting

Simon Hassis **1993**
Instructor—Computer Systems Technology
M.Ed., University of Maine; Bachelor of Electrical Engineering Technology, University of Maine; A.A.S. in Electronics Technology; Eastern Maine Vocational Technical Institute; General Radiotelephone Operator and Technician Class FCC Licenses

William A. Hillery **2003**
Instructor--Mathematics
M.S. in Mathematics, University of New Hampshire; B.S., Eastern Connecticut State University

Terrence Holloway **2012**
Instructor—Business Management
M.S.B., Husson University; B.A in Business Communications, Pfeiffer University, PHR Certification 2012

John W. Ianelli **2002**
Department Chair—Fine Arts/Languages; Instructor--Computer Aided Drafting & Design; Digital Graphic Design
M.A., State University of New York-Albany; MFA., University of New York-Albany; B.S. Industrial Design, Johnson State University

Mark Janicki, CHE **1993**
Department Chair, Instructor-Hospitality and Tourism Management, Instructor--Culinary Arts
MBA, Almeda University; B.S. in Education, University of Southern Maine; A.A.S. in Culinary Arts, A.A.S. in Food Service Management, Newbury College; Certificate of Study, La Varennem, Paris, France; Certified Hospitality Educator, Certified in ServSafe Sanitation, Hospitality Purchasing Management; Food and Beverage Management; ACF Charter Member

Jonathan Kill **2012**
Instructor—Automotive
A.A.S GM ASEP Lake Region Community College;
ASE Master Technician with L1 Certified Advanced Engine Performance Specialist; Former GM Master Technician with Hybrid System Certification

Melanie Landry **2012**
Instructor—Medical Radiography
B.S. in Elementary and Secondary Education, University of Maine; A.A.S., Medical Radiography, Eastern Maine Community College; AART Certified in Radiography; Maine License in Radiography

Changsu Lee **2003**
Instructor—Mathematics
M.S. in Business, Husson College; B.A. in Political Science, University of Maine at Presque Isle; Associate Degree in Computer Information Systems

Carol Lewandowski **1995**
Department Chair, Instructor--English
M.A. in English, Trenton State College; B.A. in English/Philosophy, Muskingum College; ESL Certificate, Trenton State College

John Liimakka **2005**
Instructor—Civil Engineering
M.S. in Civil Engineering, with focus on Structures, Michigan Technological University; B.S. in Civil Engineering, Michigan Technological University; B.S. in Land Surveying, Michigan Technological University

Jane Loxterkamp **2000**
Instructor—Early Childhood Education/Education
M.A. in Early Childhood Special Education, University of Iowa; B.S. in Elementary Education, University of Iowa; Family Specialist Certification, University of Iowa

Gilbert Marquis **1991**
Instructor--Math/Physics
M.Ed. in Science Education, University of Maine; BSEET, University of Maine; A.A.S. in Electrical Power, Eastern Maine Technical College

Christopher W. Maseychik **2005**
Department Chair, Instructor—Welding
B.S. in Applied Technical Education, University of Southern Maine; A.A.S. in Welding, Eastern Maine Technical College; American Welding Society (AWS) Certified Welding Inspector, Educator, Pipe (ASME IX) & Structural (D1.1) Welding; State of Maine Licensed Welder; State of Connecticut Licensed Piping Journeyman; State of Rhode Island Licensed Journeyman Welder

Paul D. Mayer **1992**
Department Chair, Instructor—Computer Systems Technology
M.A. in Educational Technology Leadership, George Washington University; B.S. in Education, University of Maine; Associate in Electronics Engineering, Valparaiso Technical Institute; PCIA Certified Radio Communications Technician; General Radiotelephone and Amateur Extra FCC licenses

Daniel McKay **2011**
Instructor—Diesel, Truck and Heavy Equipment
A.A.S. in Diesel, Truck and Heavy Equipment, Eastern Maine Community College

Donna McLaughlin **1991**
Clinical Coordinator--Medical Radiography
B.S. in Vocational Education, University of Southern Maine; A.A.S. in Medical Radiography, Eastern Maine Vocational Technical Institute; ARRT Certified in Radiolography; Maine License in Radiography

Jeff Melmed **1993**
Department Chair—Math/Sciene & Instructor—Math/Physics
Ph.D. Physics, University of North Carolina at Chapel Hill; B.S. Physics, B.A. Mathematics, East Stroudsburg University

Heather Merrill **2007**
Program Director--Medical Radiography
B.S. in Radiologic Science, St. Joseph's College of Maine; A.A.S. in Medical Radiography, Eastern Maine Vocational Technical Institute

Kenneth Mitchell **2011**
Instructor—Building Construction
B.S. in Applied Technical Education, University of Southern Maine; A.S., Civil Engineering, University of Maine

Keith Moon **2012**
Department Chair, Instructor—Business Management
J.D., University of New Hampshire; M.B.A., Southern New Hampshire University; B.S., Business Administration, Niagara University

Mark S. Nisbett **1998**
Department Chair, Instructor—Computer Aided Drafting & Design
B.S. in Applied Technical Education, University of Southern Maine; A.A.S. in Drafting Technology, NMVTI; Autocad Certified; Member of American Design Drafting Association; Member of Autodesk User Group International

Nancy Ozog **2012**
Instructor—Nursing
M.S.N., University of Maine; B.S.N., George Mason University

Gabriel M. Perrow **2003**
Instructor—Mathematics
M.A. in Mathematics, B.A. in Mathematics, University of Maine

Deanna Prince **2011**
Instructor—Math/Science
Ph.D. in Marine Bio-Resources, University of Maine; B.A., Zoology, University of New Hampshire

Edward Raymaker **1977**
Department Chair/Instructor--Social Science
M.A.T. in Social Science, New York University; M.A. in Sociology, New York University; B.A. in Social Science, City College of New York

Rick Reardon, PE **2000**
Department Chair, Instructor—Electrical and Automation Technology
M.S. Business, Husson College; B.S. in Electrical Engineering, University of Maine; ISA Level III CCST; Professional Engineer, State of Maine; Certified FANUC Robotics Instructor; Certified Energy Manager; Certified Lighting Efficiency Professional (CLEP); Diploma GE Field Engineering Program; Diploma USAF School of Applied Aerospace Sciences

Nicole Record **2012**
Instructor—Business Management
J.D., University of Maine; MBA, University of Maine; B.S. in Business Education, Thomas College

Sarina Roche **2006**
Department Chair - Nursing
Doctor of Nursing Science, Master of Public Health, M.S. in Nursing, & B.S. in Nursing, Columbia University

Connie Ronco **1999**
Department Chair/Instructor--Early Childhood Education/Paraeducation
CAGS in Educational Leadership, University of Maine; M.Ed. in Science Education, University of Maine; B.S. in Child Development, University of Maine

Sharon Ruiz **2012**
Instructor--Nursing
Ph.D. in Education, Capella University; MSN Wilkes University, BSN Widener University

Nathan Scott **2012**
Instructor—Culinary Arts
B.P.S. in Culinary Arts and Service Management, A.A.S. in Culinary Arts, Eastern Maine Community College; Paul Smith's College; Certification in Food Communications

Stanley P. Siviski **1992**
Instructor--Welding
B.S. in Education, University of Southern Maine; American Welding Society Certified Welding Inspector – QCI 96; Certified Welding Educator; American Society for Nondestructive Testing Certified Level II Inspector MT/PT; Journeyman Ironworker; SMAW and FCAW Structural Certification; AWS D1.1; State of Maine Boiler Certification – ASME Section IX

Lester Stackpole **1978**
Department Chair—Building Construction/Civil Engineering; Instructor--Building Construction
B.S. in Vocational Education, University of Southern Maine; Diploma in Building Construction, Southern Maine Vocational Technical Institute; Building Performance Institute (BPI) Building Analyst Professional and Certificate Instructor; Lead Renovator Certificate; O.S.H.A. Certificate; Certified Instructor for Construction Supervisory Training, Associated General Contractors of America

Richard Thomas **2011**
Department Chair, Instructor—Automotive Technology
M.Ed. in Educational Administration, University of Maine; B.S. in Vocational-Technical Education, University of Southern Maine; A.A.S., Automotive Technology, Eastern Maine Vocational Technical Instititue

Ronald E. Turner **1984**
Instructor—Social Sciences
M.A. in Economics, B.A. in Economics, University of Maine

Brent Vadas **2008**
Instructor—Electrical and Automation Technology
B.S., Electrical Engineering Technology, University of Maine at Orono

Charles W. Veilleux **1990**
Department Co-Chair, Instructor—Refrigeration, Air Conditioning & Heating
Matriculated, University of Southern Maine; State of Maine Limited Refrigeration Electrician's License; EPA Refrigerant Certification; State of Maine Propane and Natural Gas License

Devin K. Wood **1991**
Instructor—English
M.A. in English, University of Maine; B.A. in English, University of Maine

Emeritus Appointments

Nathaniel J. Crowley, Jr. **1969**
Computer Applications--EMERITUS
M.Ed., University of Maine at Gorham; B.S. in Education, University of Maine; Certified Microsoft Office Specialist—Excel and Word

Loring S. Kydd **1966**
Mathematics - EMERITUS
M.Ed. in Education, University of Maine; B.A. in Mathematics, University of Maine; A.A.S. in Civil Engineering, Wentworth Institute; Maine Associate Real Estate Broker

Marilyn A. Lavelle **1990**
Nursing - EMERITUS
M.S. in Nursing, Boston University; B.S.N., University of Rhode Island; Registered Nurse

James Peary **1981**
Refrigeration, Air Conditioning and Heating - EMERITUS
B.S. in Industrial Education, University of Southern Maine; A.A.S. in Refrigeration/Air Conditioning/Heating, Manchester Vocational Technical College; State of Maine Master Electrician; EPA Refrigerant Certification, Universal- Category; State of Maine Propane and Natural Gas License, HRAI--Residential Mechanical Ventilation Certification; Certified Solar Energy Installer, Maine Public Utilities, State Energy Program

Warren D. Southworth **1968**
English - EMERITUS
M.Ed. in Educational Administration, B.A. in English, University of Maine

W. Gregory Swett **1974**
Dean of Students and Academic Services – *EMERITUS*
M.S. in Mathematics and Education, University of Maine at Orono; B.S. in Mathematics, University of Maine at Orono

Raymound L. Thibodeau **1966**
Dean of Students – EMERITUS

Janice E. Willette **1977**
Nursing - EMERITUS
M.S., Syracuse University; B.S.N., University of the State of New York; Diploma in Nursing, Hartford Hospital; Registered Nurse

Staff Members

Terri Adam **2003**
Special Assistant to the President & Human Resources - President's Office
A.A.S., General Technology, Eastern Maine Community College

Teresa Allen **2009**
Administrative Specialist III – Penquis Higher Education Center

Bradley Bailey **2011**
Educational Assistant II, Building Construction

Lawrence Barrett **2010**
President
Ed.D., Nova Southeastern University; M.S., Educational Administration, State University of New York at New Paltz; B.S., Communications, State University of New York at Plattsburgh; A.A., Communications, Ulster County Community College

Dan Belyea **1988**
Director of Student Life and Facilities Management—President's Office
A.A.S. in Business Management, Eastern Maine Technical College; Law Enforcement Training School -- Reserve Officer Certificate, Maine Criminal Justice Academy

Michelle Bladen **2010**
Administrative Specialist III – Facilities Management

Janet Blood **2006**
Associate Academic Dean of Library Services
M.L.I.S., University of South Carolina; B.A. in Anthropology, University of Maine

Jody Boyd **2011**
Director of Human Resources and Training Manager—President's Office
M.S.B., Husson University; B.S. in Business, Husson University

Melissa Boyan **2010**
Accounting Technician – Finance Administration
M.S., Business, Husson College; B.S., Accounting, Husson College

Rita P. Broad **2000**
Associate Director of Admissions – Enrollment Center
B.S. in University Studies, University of Maine; A.S. in Liberal Studies, University of Maine at Augusta

Simon Brown **1989**
Plant Maintenance Engineer III—Facilities Management
Licensed Master Electrician

Nancy Burns **1992**
Administrative Secretary-- Enrollment Center and Institutional Research

Vickie Call **2012**
Administrative Secretary—Academic Dean's Office
B.S. in University Studies, University of Maine; A.A.S. in Business Management, Washington County Community College

Elizabeth Castro **2005**
Administrative Specialist I – Enrollment Center
BFA, Theatre Arts, Emporia State University

Brad Chesson **2006**
Carpenter – Facilities Management
A.A.S. in Building Construction.

Eric B. Clark **2003**
Information Systems Support Specialist I—IT Department
B.S. in Biology, Northland College, Ashland, Wisconsin; A.S. in Computer Science, Eastern Maine Community College

Timothy L. Conroy **1997**
Dean for Information and Communications Technology – President's Office
B.S. in Secondary Education, University of Maine at Presque Isle

Kent Corey **2008**
Resident Director – Acadia Hall
B.S., Business Management (Sports Concentration), Husson College; A.A., Business Administration, Northern Maine Community College

Dan Crocker **1993**
Dean of Enrollment Management and Institutional Research – President's Office
M.B.A., University of Maine; B.S. in Business Administration, University of Maine

Tory Dearborn
Accountant I – Business Office
B.S. in Accounting, Geneva College

Brent Delong **1994**
Facilities Maintenance Specialist I—Facilities Management

Joe Devou **2008**
Information Systems Support Manager – IT Department
A.A.S., Electronics Technology, Eastern Maine Vocational Technical Institute

Ruth Doherty **2012**
Safety and Security Manager
B.S. in Criminal Justice, Husson College.

Alissa Downing **2008**
Director of Residential Life, Activities & Student Engagement
A.A. in Liberal Studies, Eastern Maine Community College

Steven Drane **2008**
Facilities Maintenance Specialist I—Facilities Management

Carol Anne Dube **2011**
Director of Institutional Advancement and Executive Director of Eastern Maine Community College Foundation —President's Office
M.S. in Strategic Fundraising and Philanthropy; B.S. in Business Management, University of Maine-Fort Kent

Amy Eastman **2005**
Administrative Specialist I—Enrollment Management & Institutional Research
A.A.S. in Business Management, Eastern Maine Vocational Technical Institute

Cheryl Fox-Briggs **2011**
Administrative Specialist III—Facilities Management

Thomas E. Giles **1989**
Director--Welding Test Center
A.A.S. in Welding Technology, Eastern Maine Technical College; American Welding Society Certified Welding Inspector - QCI 88; American Society for Nondestructive Testing Certified Level II Inspector MT/PT.

Darlene Gladu **1999**
Administrative Specialist I—Enrollment Center
A.A.S. in Office Administration and A.A.S. in Business Management, Eastern Maine Technical College; Diploma in Accounting, Beal College

Marcie Grant **1997**
Academic Services Coordinator, Academic Dean's Office
A.A.S. in Administrative Assistant, Eastern Maine Technical College

Stacy Green **1996**
Associate Director of Admissions—Enrollment Center
A.A.S. in Administrative Assistant, Eastern Maine Technical College

Hope Holyoke **2006**
Regional Director, Early College for ME
M.S. in Business, Husson College; B.S. in Business Teacher Education, Husson College

Carolyn Kettle **2000**
Administrative Specialist I—Katahdin Region Higher Education Center

Eric MacDonald **2012**
Director of Finance—President's Office

B.S. Degree in Business Management, Husson University

Arlene MacLeod **1993**
Administrative Secretary—Bangor Business and Industry Center
A.A.S. in Business Management, Eastern Maine Community College; A.A.S. in Executive Secretarial Science, Bay Path Junior College

Jeremy Martin **2001**
Computer Programmer—IT Department
A.A.S. Computer Networking, Eastern Maine Technical College

Colette McCauley **2008**
Administrative Specialist I – Nursing Dept.
A.A.S. in Liberal Arts, Nassau Community College

Eleanor M. Miller **1988**
Planning & Research Associate—Enrollment Management & Institutional Research
B.A. in Mathematics, University of Maine

Gregory Miller **2012**
TAACCT Student Coordinator, Building Construction
M.Ed. in Secondary Counseling, University of Maine; B.A. in History, Wagner College

Lewis H. Miller **1985**
Assistant Director of Financial Aid – Enrollment Center
B.A. in History, Bowdoin College; B.S. in Accounting, Husson College

Katrina Mumford **2011**
Social Media/Web Master, Institutional Advancement
B.S. in Communications, New England School of Communications

Dusty Packard-Adams **1998**
Accountant II-Payroll, Business Office
A.A.S. in Business Management, Eastern Maine Technical College

Toby Pelletier **1993**
Administrative Coordinator—Enrollment Management & Institutional Research

Debra Perro **1999**
Administrative Specialist II – Enrollment Center
A.S. in Business Management, University of Maine

Michael G. Prickett, Sr. **1987**
Building Custodian—Facilities Management
Electricians Helper License; Refrigerant Certified; Licensed Apprentice for 1 and 2 oils; Class I Driver; Forklift License; Certified Maine Driving Dynamics Course; Certificate in Windows and WordPerfect software

Pamela Proulx-Curry **2011**
Academic Dean—President's Office
Ph.D. in Analytical Chemistry, University of New Hampshire; B.S. in Chemistry, University of Maine

Kathy Roney **2005**
Facilities Maintenance Specialist I—Facilities Management

Ruth Rogers **2011**
Administrative Specialist III—Institutional Advancement
B.S. in Food and Nutritional Science, University of Rhode Island

Steve Ropiak **2011**
Information Systems Specialist II – IT Department
Dell Certified Systems Expert certification; ASQC and CQE certifications

Debora J. Rountree **1997**
Associate Academic Dean for Higher Education Centers--Academic Dean's Office
M.Ed., Higher Education, University of Maine; B.S. in Mental Health and Human Services, University of Maine at Augusta; A.A. in Medical Administrative Assistant, Beal College; A.S. in Social Services, University of Maine at Augusta; MHRT II Certification

Elizabeth C. Russell **1994**
Associate Dean of Enrollment Management/Director of Admissions
M.S., Business, Husson College; B.S., Business Teacher Education, Husson College

Merlene Sanborn **1993**
Associate Academic Dean for Program Development—Academic Dean's Office
CAGS in Higher Education, University of Maine; M. Ed., Educational Administration, University of Maine; B.S., Early Childhood Education, University of Maine at Machias

Sarah Sawyer **2009**
Advising and Retention Specialist—Enrollment Center
M. Ed., Counselor Education, University of Maine; B. S., Child Development and Family Relations, University of Maine

David Sgroi **2009**
Facilities Maintenance Specialist I—Facilities Management

Karen A. Shorette **1994**
Manager of Financial Services—Finance Administration
MBA in Business Administration, Husson University; B.S. in Business Administration, Husson College

David Shumaker **2006**
Custodial Worker III – Facilities Management

Melissa Stairs **2011**
Accounting Technician—Finance Administration
B.S. Business Administration, University of Maine

Linda Stanley **2010**
Accounts Receivable Manager—Finance Administration
M.S., Business, Husson University; B.S., Accounting, Husson University

Dian Stratton **1999**
Public Service Librarian
M.S.L.S., Clarion University of Pennsylvania; B.A. in Psychology, University of Maine

Erin Vinson **2012**
Coordinator of Concurrent Enrollment—Academic Dean's Office
M.A. in Teaching Secondary Science, University of North Carolina; B.S. in Ecology and Biology, University of Georgia

Candace Ward **1985**
Associate Dean of Students/Director of Financial Aid/Coordinator/Director of Advising Activities--Enrollment Center
M.P.A., B.A. in History, University of Maine.

Christopher Whalen **2008**
Information Systems Support Technician – IT Department
A.S. Computer Science, Kennebec Valley Community College, A.A. Liberal Arts, Manatee Community College, Florida

Amy Willard **2000**
Administrative Specialist III—Katahdin Region Higher Education Center
A.S. in Business Administration, University of Maine at Augusta. Enrolled in B.S., Business, University of Maine at Augusta

Elizabeth Worden **2003**
Assistant Academic Dean for Academic Support--Academic Dean's Office
Ph.D. in Instructional Systems Technology, Indiana University; B.A. in Child Psychology, University of California at Berkeley

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2012-2013 Academic Calendar

August	21-23	Faculty Development Days
	27	Fall Semester - Classes Start
September	1	Add/Drop Ends
	3	Labor Day –No Day or Evening Classes
	18	Harvest Day
October	5	Early Warnings Due in Academic Dean's Office
	8	Columbus Day – No Day or Evening Classes
	19	Withdrawal Ends
November	12	Veterans Day - Staff Holiday - No Classes
	21-23	Thanksgiving Break-No Day or Evening Classes
December	12	Day Classes End
	13-14	Final Exams (Day Classes)
	14	Evening Classes End
January	7	Medical Radiography Classes Start
	10	Faculty Development Day
	14	Spring Semester – Classes Start
	19	Add/Drop Ends
	21	Martin Luther King Day – No Day or Evening Classes
February	18	February Break Begins
	25	Classes Resume
March	1	Early Warnings Due in Academic Dean's Office
	14	Withdrawal Ends
April	1	Spring Break Begins
	8	Classes Resume
	15	Patriots Day - Day and Evening Classes **in Session**; staff holiday
	25	Tech Day
May	3	Senior Banquet
	8	Day Classes End
	9-10	Final Exams (Day Classes)
	10	Evening Classes End
	10	Nursing Pinning Ceremony
	11	Commencement
	13	Medical Radiography Clinical Starts
	13	Summer Session I (May Term) begins
	27	Memorial Day – No Day and Evening Classes
June	3	Summer Session II Begins
	14	Medical Radiography Graduation
	28	Medical Radiography Clinical Ends
July	4	Independence Day – No Day and Evening Classes