

2022 - 2024 Course Catalog



Northern Maine Community College
33 Edgemont Drive
Presque Isle, Maine 04769
(207) 768-2700
www.nmcc.edu

Northern Maine Community College is accredited by the New England Commission of Institutions of Higher Education (NECHE). The business technology department is nationally accredited by the Association of Collegiate Business Schools and Programs (ACBSP) for the offering of its business programs that culminate in the associate in applied science degree. The associate degree nursing program is accredited by the Accreditation Commission for Education in Nursing (ACEN) and approved by the Maine State Board of Nursing. The emergency medical services program and the medical assistant program are accredited by the Commission on Accreditation of Allied Health Professions (CAAHEP). The automotive collision repair, automotive technology and diesel hydraulics technology programs have each achieved Master Level Certification by the National Institute for Automotive Excellence (ASE). The computer numerical controls program is accredited by the National Institute of Metalworking Skills (NIMS). The college is a member of the American Association of Community Colleges, the American Council on Education and the Maine Higher Education Council.

Northern Maine Community College expressly reserves the right to change in any manner, including terminating or eliminating, the courses and programs offered or otherwise presented in this catalog. The Maine Community College System expressly reserves the right to change in any manner, including increasing tuition or any other fees. While, where practicable, the College will attempt to give as much notice as each situation allows, the College reserves the right to make any such changes without notice.

Northern Maine Community College does not discriminate on the basis of race, creed, color, national origin, religion, sex, sexual orientation, gender identity or expression, disability, genetic information, age, or Vietnam era veteran status, in its programs and activities. Inquiries regarding the College's compliance with policies that prohibit discrimination on these basis may be directed to any or all the following:

Affirmative Action Officer
Northern Maine Community College
33 Edgemont Drive
Presque Isle, ME 04769
Telephone: 207-768-2791
Maine Relay Service: 800-457-1220
Fax: 207-768-2848
E-mail: AffirmativeAction@NMCC.edu
Internet: <http://www.nmcc.edu>

and/or

Maine Human Rights Commission (MHRC)
51 State House Station
Augusta, ME 04333-0051
Telephone: 207-624-6050
TTY/TDD: 207-624-6064
Fax: 207-624-6063
Internet: <http://www.state.me.us/mhrc/index.shtml>

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>

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's practices are in full accord with the Family Educational Rights and Privacy Act.

In addition to policies and procedures of the College, NMCC adheres to the policies and procedures of the Maine Community College System.

Message from the President

Choosing a college is an exciting and challenging undertaking. Embrace the moment. Let us help you think through the process. We think you may determine that Northern Maine Community College is the smartest choice.

If you are looking for a small community college where the faculty gets to know their students — NMCC is the place for you.

If you are looking for an affordable education to improve your quality of life — NMCC is the place for you.

If you are looking for a college where faculty and staff are committed to making a positive difference in your life — NMCC is the place for you.

If you want to earn an associate degree in liberal studies with a goal of transferring to complete a bachelor's degree — NMCC is the place for you.

If you want to learn essential skills that will lead to an enjoyable and meaningful career — NMCC is the place for you.

Encouragement, experience and excellence are at the heart of our institution. We embrace our vision statement — *Transforming lives through education* — and use it as our guide in providing a welcoming learning environment. Please consider giving us the opportunity to work with you as you plan the next steps to your future.

Thank you for exploring our catalog and I invite you to visit our website at www.nmcc.edu to learn more. You can also visit us on Facebook and Instagram. I also encourage you to consider visiting our campus. You can contact the Admissions Office at 207-768-2785 or admissions@nmcc.edu.

Sincerely,



Timothy Crowley
President



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General Information

NORTHERN MAINE COMMUNITY COLLEGE

Northern Maine Community College was authorized in 1961 by the Maine Legislature and became operational in 1963. One of seven colleges in the Maine Community College System, the campus is located one mile from the center of Presque Isle. The college has undergone ongoing improvements and renovations, and has modern facilities to house its programs.

NMCC currently offers more than 30 full-time associate degree, advanced certificate and certificate programs. A wide range of credit and non-credit courses are also offered in the evening, during the summer term and online. All individuals are encouraged to enroll in programs considered nontraditional for their gender. Qualified people with disabilities are also encouraged to apply and are provided appropriate support services.

Most programs are designed to give students the technical knowledge and skills as well as the essential general education with which to pursue a career after graduation. The liberal studies program offers students the opportunity to obtain their first two years of a baccalaureate credential before transferring to another college or university. Many graduates of technical programs choose to continue their education at an institution offering a baccalaureate degree. Several transfer agreements with other credited institutions assist students in continuing their education.

Institutional Accreditation

Northern Maine Community College is accredited by the New England Commission of Higher Education (NECHE), one of seven regional higher education accrediting bodies in the United States. Through its evaluation activities the Commission provides public assurance about the educational quality of degree-granting institutions that seek or wish to maintain accreditation.

Each of the standards articulates a dimension of institutional quality. In applying the standards, the Commission assesses and makes a determination about effectiveness of the institution as a whole.

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

Vision Statement

Transforming lives through education.

The Mission of the College

Northern Maine Community College is committed to maintaining its tradition of providing high-quality career and transfer programs that lead to associate degrees, certificates, and specialized training necessary for an educated, skilled and adaptable workforce. Through its affordable programs of study, courses, and specialized-training seminars, the College is a catalyst for economic growth and the development of human potential.

Core Values

The faculty, staff, alumni, and current students of NMCC are committed to the following core values:

- Student centered: We offer a learning environment focused on supporting students as they strive toward their individual success.
- Excellence in learning: We provide quality teaching and learning experiences as a means of promoting life-long learning to all.

- Diversity: We promote mutual respect and equality as a means of recognizing and embracing diversity.
- Service: We foster excellence in service to the College and the community, including business, industry and society.
- Integrity: We subscribe to and promote high standards of ethics and integrity; understanding that they are the foundation upon which our reputation is built.
- Sustainability: We practice continuous improvement as a means to being relevant to the economy, workforce, environment and future of the College.

Diversity Statement

The concept of diversity encompasses acceptance and respect. It includes but is not limited to ability, age, class, culture, education, ethnicity, family structure, gender, ideologies, political beliefs, race, religion, sexual orientation, style and values. Diversity is each of us and all of us.

Awards

The College awards the associate in applied science, the associate in science and the associate in arts degrees, as well as certificate and advanced certificate credentials.

NMCC Philosophy of General Education

The general education core provides broad exposure to the main fields of human knowledge (humanities, social sciences, sciences, and mathematics) to provide the foundational knowledge, skills and values of an educated person, support students in mastering a technical field and becoming active and responsible citizens.

An educated person is fully literate, able to read, write, listen, speak, and think with clarity and precision; has the capability for lifelong learning, including the skills of information literacy and the ability to think critically; understands and is able to relate scientific and technological knowledge to the issues that affect the quality of human life on this planet; uses numerical data with ease and precision; and uses the aforementioned knowledge and their experience to find meaning and purpose in life.

An educated person engages in work that is fulfilling and does it to the best of their ability; understands their role as a citizen with a logical system of ethics and values; and is able to apply those values and morality everyday within society in a reasoned and rational manner. To that end, the faculty has identified what they deem to be the essential knowledge, skills, and values of an educated person.

Rodney Smith Wellness Center

The Rodney Smith Wellness Center features an open, naturally-lit design and offers high-quality, user-friendly strength-training machines available to full-time students at no cost. The facility is designed to support your personal wellness as well as prepare you for the physical demands of your chosen field of work.

This 4,000 square-foot facility is fully staffed and equipped with LifeFitness equipment, including cardio units with individual LCD screens and interactive apps for use during workouts. The certified trainers can help you individualize and personalize your routines.

The Wellness Center offers a variety of group classes such as zumba, circuits, spin classes, yoga and coordinated hiking trips (charges may apply). Visit the Center to learn more about the equipment, hours of operation and special classes or activities available.

Admissions

ADMISSIONS

Completion of a four-year high school program or a state high school equivalency certificate is required for admission to the associate degree and certificate programs offered at NMCC. Other admission criteria are specified in the matrix on page 11. A rolling admission policy affords candidates the opportunity to apply and be considered for acceptance throughout the year, but early application (9-10 months prior to the beginning of a given school year) is recommended because of competition and enrollment capacities established for each program. Some programs are subject to a competitive admission process.

All programs are offered to all genders. Students are encouraged to enroll in programs considered nontraditional for their gender. Qualified persons with physical, learning or health disabilities are also encouraged to apply and are provided appropriate support services.

Application Procedure

The following procedures constitute the admission process:

1. Submit an NMCC application.
2. A complete high school transcript, for all years attended, must be submitted to the Admissions Office. Current high school seniors must include grades for the ranking periods completed at the time of their application to NMCC.
3. GED/HiSET test scores must be submitted to the Admissions Office by those who have not received a high school diploma.
4. College transcripts must be submitted to the Admissions Office by applicants who have attended other colleges or postsecondary schools, including transcripts for dual enrollment college classes taken during high school.
5. Placement testing scores (SAT, Accuplacer, etc.) may be required. Prospective students with a native language other than English, will be required to demonstrate a proficiency in the English language. The Test of English as a Foreign Language (TOEFL), administered by the National Testing Service, will be made part of the applicant's file. Minimum scores required; BT=85 or pBT=61.
6. Campus tours are strongly recommended.
7. Meet with an Admissions Counselor. An interview is required for some programs.

Conditional Admission

Some students are admitted with conditions, including, but not limited to, an on-campus developmental studies program in reading, writing and/or mathematics. The conditions in a given applicant's acceptance letter typically must be completed during the first semester of attendance and are removed upon successful completion of the specified requirement.

Transfer Credit

- I. Applicants requesting transfer credit must submit their request to the Admissions Office, preferably prior to enrollment. Requests for transfer credit after admission follows the Prior Learning Assessment process. Courses accepted for transfer credits are not included as part of any student's grade-point average at NMCC. Official college transcript is required.

The College's policy is to accept no more than six credit hours from another institution while the student is currently enrolled in a prescribed two-year program at NMCC. Determination will be made on an individual basis.

1. A student wishing to attend another institution while enrolled at NMCC must make a written request.
 2. Request must be approved by the Registrar Office.
 3. The written approval and final grades are to be submitted to be recorded on the permanent transcript as transfer credit.
 4. For transfer courses to be accepted, a minimum grade of C is required. Courses accepted as a transfer credit are not included as part of a student's grade point average at NMCC.
- II. Credit for occupational/major courses may be issued to individuals enrolled in or having completed a registered apprentice program may be awarded up to 24 credit hours. Assessment may be fulfilled by one or more of the following methods:
1. Successful completion of a recognized apprenticeship training program approved by the Maine State Apprenticeship Council.
 2. Applicants who have successfully completed a Journeyman's Examination may submit a written application for lab credit.
 3. Applicants presently enrolled or having completed in-house training, which formal apprenticeship training or examinations are not used.
- III. Individuals entering nursing and allied health programs with advanced standing (upgrading credential) or re-entering the program after a break in attendance, may be required to take or repeat all major courses within the program. Related science courses must be repeated if they were taken more than 10 years prior.

Services for Students with Disabilities

Students applying for admission to the College are encouraged to indicate any physical disability, learning disability or health problem that may require accommodations to the classroom or residential life environment. Requests for special accommodations must be submitted in writing to the director of counseling at least three weeks prior to admissions testing and/or the first day of classes each semester.

Students are also responsible for providing appropriate and current documentation from a qualified professional that supports such requests. In some cases, students may be required (at their own expense) to undergo re-evaluation. Accommodations must be approved by the dean of students.

Full-time, Part-time & Non-degree Students

Students who are admitted to a program of study at the college may choose to enroll as either full-time or part-time students in any given semester.

NMCC defines a full-time student as one who enrolls for 12 credit hours or more per semester. Most agencies and programs, including financial aid, veterans' assistance, the Social Security Commission and insurance benefits, also define a full-time course load as 12 credits per semester.

Anyone interested in taking one or more courses without enrolling in a degree program may do so by registering for the course(s) during registration periods. Course pre-requisites and co-requisites apply. Non-degree students do not need to apply for admission to the college in order to take courses.

New England Regional & New Brunswick Student Programs

Students who are legal residents of any New England state may be eligible for admission consideration under the New England Regional Student Program. Students in this program will pay tuition equal to 150% of applicable resident tuition.

Students admitted under the MCCS/NBCC agreement are eligible to take classes at in-state tuition rates. Not all programs are available under this agreement, and applicants must first contact the admission office at their local New Brunswick community college. All other New Brunswick residents are eligible to receive the New England Regional Program tuition rate of 150% of applicable resident tuition.

Academic Skills Assessment

NMCC uses multiple measures to assess academic skills including transcripts and test scores (SAT, PSAT, HiSET, GED, Accuplacer). Performance on testing may affect a student's acceptance into a program in the college. Results are used for appropriate placement in English, reading and mathematics courses. Performance on testing may affect a student's acceptance into a program in the college. Results are used for appropriate placement in english, reading and mathematics courses.

NMCC uses multiple measures to assess course placements. (Ex: HiSET, Accuplacer, SAT, ACT, etc...)	Credential		HS Diploma / GED	Academic Testing* or Equivalent Test Scores	2 yrs. of Math	Algebra I	Algebra II	Geometry	Physics	Chemistry	2 yrs. HS Science w/ Lab	4 yrs. of English or Equivalent	Accounting	BLS	Immunizations	EMT - Basic	Paramedic License or Equivalent	Valid Drivers License	Recommendations	Program Specific Medical Compliance
	AD	R																		
Accounting	AD	R	R	R	R	D						R	D		R				D	
Automotive Collision Repair	AD / CRT	R	R	R	R/D	D	D	D				R			R				D	R
Automotive Technology	AD / CRT	R	R	R	R/D	D	D	D				R			R				D	
Building Construction Maintenance	CRT	R	R	R	R/D	D	D	D				R			R				D	R
Business Administration	AD	R	R	R	R	D						R	D		R				D	
Career Studies	AD / CRT	R	R	R	R	D			D		D	R			R				D	
Community Paramedicine	AD / CRT	R	R	R	R	D			D	R		R			R		R		D	
Computer Numerical Control	CRT	R	R	R	R	R	R	D				R			R				D	
Diesel Hydraulics Technology	AD / CRT	R	R	R	R/D	D	D	D				R			R				D	
Early Childhood Education	AD / CRT	R	R	R	R	D					D	R			R				D	R
Electrical Construction & Maintenance	AD / CRT	R	R	R	R	D	D	D				R			R				D	
Emergency Medical Services	AD / CRT	R	R	R	R	/D	/D	D	R/D	R/D		R		R	R	R		R	D	R
Entrepreneurship	CRT	R	R	R	D							R	D		R				D	
Liberal Studies	AD / CRT	R	R	R	R	D		D			D	R			R				D	
Medical Assisting	AD / CRT	R	R	R	R	D				D	R	R	D	R	R				D	R
Medical Coding	CRT	R	R	R	R	D				D	D	R	D		R				D	
Network Administration & Cybersecurity	AD / CRT	R	R	R	R	D						R			R				D	
Nursing (RN)	AD	R	R	R	R	D			D	R	R	R		R	R			D	R	
Office Assistant	CRT	R	R	R	D							R	D		R				D	
Plumbing & Heating Technology	AD / CRT	R	R	R	R/D	D	D					R			R				D	
Practical Nursing	CRT	R	R	R	R	D		D	D	R	R			R	R				D	R
Structural Welding	CRT	R	R	R	D	D	D	D				R			R				D	
Water Treatment Technology	AD / CRT	R	R	R	R/D	D	D	D	R	R	R				R				D	
Wind Power Technology	CRT	R	R	R	R	D	D	D				R			R				D	R

AD: Associates Degree - CRT: Certificate - D: Desired - R: Required

Immunization

Maine Law (22-MRSA\$6359) requires that all students born after 1956 attending any public or private postsecondary institution in Maine have on file at the institution a "Certificate of Immunization" signifying that they are in compliance with the above stated Maine law, as amended. Some programs will require additional medical clearance. Students enrolled in only online courses are exempt from the immunization requirements.

PRIOR LEARNING ASSESSMENT PROCESS

Prior learning is a term used to describe learning that a person acquires outside a traditional academic environment. This may have been acquired through work experience, employer training programs, military, non-credit courses or seminars, and volunteer work.

Prior learning assessment (PLA) is a term used to describe the process by which an individual's experiential learning is assessed and evaluated for purposes of awarding college credit. NMCC has several approaches to PLA to help students save time and money on their way to achieving a college degree.

1. National standardized exams in specified disciplines such as Advanced Placement (AP) exams, College Level Examination Program (CLEP) tests, and Dantes Subject Standardized Texts (DSST). The College awards credit for examinations based on current American Council on Education (ACE) recommendations.
2. Foreign Language Achievement Testing Service (FLATS) exams.
3. Proficiency Credit - Certificates, Examinations and Licenses from evaluated non-college programs.
4. NMCC challenge exams
5. Portfolio review
6. Military review
7. Articulation agreements

Student Eligibility for Prior Learning Credits

1. Students must be matriculated in one of the College's degree programs.
2. Students will have a requirement(s) in their academic program to which prior learning credit could apply.

Award of PLA Credit

- Credit for prior learning will be awarded based on assessment of documented learning, which demonstrates achievement (at a grade level of C or higher) of learning outcomes for a specific requirement/discipline area elective.
- The College has all course descriptions, objectives and learning outcomes written for each catalog course, which is available for students seeking a prior learning assessment.
- Students may earn prior learning credit for any graduation requirement at any point in their program for which they demonstrate equivalent learning, unless there is unique program accreditation requirement restricting this.
- The award of prior learning credit is subject to New England Commission of Higher Education

(NECHE) accrediting agency standards (revised for July 2016). These standards cap PLA credits in certificate programs of 30 or fewer credits to 25%. Credits earned by PLA are not recognized in the residency requirement of 25% of associate degree credits.

- All types of prior learning acquired more than ten years from the date of NMCC matriculation are subject to review through non exclusion.
- Prior to a formal review, faculty and other academic advisors will provide guidance, but not assurances, of the number of credits that may be awarded.
- A student may not receive credit twice for courses that have been awarded through PLA.
- NMCC is committed to transparency in the award or denial of academic PLA credit and the College's academic appeal process applies to PLA awards.
- When credit is awarded, students will receive notification from the Registrar's Office.
- Students and advisors should be aware whether PLA credit will satisfy credit load requirements for veteran benefits funding or other similar third party financial assistance programs.

Transcription of PLA Credit

- Prior learning credits can be used to satisfy any degree/program requirement.
- Maine Community College System (MCCS) uses a standard coding system for each method of PLA as reflected in the transcript's key.
- The College will award its own course title and number to the prior learning credit.
- When the credit is transferred from another institution of higher education, it retains its own course title and number.
- Credits awarded via any prior learning method indicate that learning has been assessed for that credit at a grade of C or better.
- Prior learning credits do not carry quality points and are not calculated in the grade point average.

Fees

- Fees are set for the review of two types of prior learning but not for any resulting credit: portfolio and campus-based challenge exams.
- Payment of a PLA fee does not guarantee the award of credit and is non-refundable. In addition, lab fees and/or material costs for these assessments may apply.
- PLA fees will be clearly publicized for students prior to their request for credit evaluation.
\$100 per Challenge Exam attempted / \$125 per Portfolio attempted
- Fees are reviewed on a consistent basis, similar to other MCCS fees and revised to reflect conformity with academic and administrative standards.

Appeal

- Students wishing to appeal a PLA credit denial may do so in accordance with the College's academic appeals policy and procedure.
- Recommendations and scoring by any nationally standardized exam organization (AP, CLEP, DSST, IB, or BYU-FLATS, etc.) are under the auspices of the evaluation organizations and cannot be appealed at the College level. Students will be directed to the appeals procedures for each testing agency or credit recommendation service.

Transferability

- MCCS colleges recognize PLA credit specifically awarded by sister colleges (i.e. credit from credential review, challenge exam, and portfolio) as transfer credit, as applicable to the academic program at the receiving institution. No further burden of proof will be required of students, where PLA credit appears on another MCCS transcript. This same reciprocity is extended to students/transcripts from the University of Maine System.
- The College cannot guarantee the transfer out of PLA credits to other college/universities, nor the applicability of credits to a student's future degree requirements.
- Students are encouraged to engage in careful academic and financial aid planning when their academic goals include transferring to other degree programs.

TAKING COLLEGE COURSES WHILE IN HIGH SCHOOL

Early Admission of High School Students

High school juniors who qualify may enroll as full-time matriculated students. With the recommendation of the high school principal and guidance counselor, students can simultaneously complete high school graduation requirements and their freshman year of college. The College will consider only highly motivated students who are entering their senior year, have a strong academic background and are in the upper half of their class. Particular consideration will be paid to the student's motivation and maturity. Applicants must follow the regular admissions process with the added requirement of letters of recommendation from the high school principal and guidance counselor.

Note: These students will not be eligible for federal financial aid until they receive their high school diploma or GED/HiSET.

On Course for College

On Course for College offers high school students a portfolio of activities, including dual enrollment, concurrent enrollment, articulated credit, and defined programs of study, to enhance the transition from high school to the college setting. Many of these opportunities are funded in part or fully by the College and its secondary partners.

Under the auspices of the Strengthening Career and Technical Education Act of 2018, NMCC works in partnership with Maine's CTE regions and centers, their sending schools, business and industry, and communities to prepare students for success in the workplace or at the next level of learning.

Interested students should check with their local CTE school or the On Course for College office at 207-768-2782 for more information.

Dual Enrollment

This program is funded by the Maine Department of Education High School Aspirations program, the Maine Community College System and the College which enables qualified Maine high school students to receive a full tuition and fee waiver at NMCC for up to twelve (12) credits each school year. This applies to courses taken while simultaneously enrolled in a Maine high school.

Withdrawal from or failure to complete the course may void the waiver. Funds and course space are limited and are available on a first-come, first-qualified, first-served basis.

Concurrent Enrollment

Students may complete college-level coursework while in high school. Courses are taught by qualified CTE instructors with the College's syllabus and materials. Students earn both high school and college credit for their work.

SERVING OUR MILITARY MEMBERS

Veterans' Services

NMCC is approved for the training of veterans and appropriate assistance is provided through the financial aid office. The VA coordinator serves as liaison to the Veterans Administration and the State of Maine's Approval Agency.

Maine National Guard

Members of the Maine National Guard should check with the College's Financial Aid Office regarding opportunities for tuition vouchers.

Students who are called up to active duty during a semester have the option of (1) receiving a per diem refund for the unexpired portion of the term for tuition and other refundable fees, or (2) having all tuition and course fees waived for one semester upon their return (as long as they return to school within one year of the end of their active duty). Unless otherwise requested, students will be re-admitted into the major they exited from, if available.

LIFELONG LEARNING

Maine residents who are 65 years of age or older may attend the College tuition-free, for up to six credit hours per semester and up to 23 credit hours total, where course space is available. The student is responsible for all other fees and costs of textbooks.

CONTINUING EDUCATION DIVISION

The Continuing Education Division provides a wide variety of professional development and personal enrichment courses designed to upgrade and strengthen job skills. Seminars, non-credit courses and workshops, as well as credit courses and certificate programs tailored to meet the needs of employees in business, industry and government agencies are offered both on and off campus. Courses meet during the day and evening, and some Saturday courses are available. Instructors are professionals who have the combination of current expertise in their topic area and experience teaching adults.

The costs of continuing education/contract training offerings are based upon the level of customization, enrollment, and the cost of the training materials. Insurance may also be required depending on the nature of the course.

Continuing Education Units (CEU) are awarded for non-credit courses. The CEU recognizes individual and institutional participation in non-traditional studies and special activities. The CEU meets the need for uniformity in the planning and educational experiences for technical and professional people to improve their competency and skill levels through staff development. One CEU is awarded for each ten hours of satisfactorily completed course hours.

Commercial Driving Academy

This 8-week driving academy is licensed by the State of Maine and complies with the FMCSA guidelines for entry level driver training. This hands-on training program is designed to help students become professional class A drivers, ready to enter this high-wage and in-demand career.

Classroom instruction includes log books, trip planning, air brakes, hazmat, doubles/triples/tankers. Students receive hands-on experience both on the driving range and on the road, learning how to handle a tractor and trailer safely and efficiently. This program is approved for the use of GI Bill® benefits.

Mechanized Logging Operations Training Program

To address the immediate need for skilled entry-level operators trained on increasingly sophisticated harvesting equipment, Maine's community colleges developed the Mechanized Logging Operations Training Program offered at Northern Maine Community College. This is a 12 week hands-on program designed to help students move directly into a career as an operator.

Bringing together expertise from woodland owners, current logging contractors in Northern, Central and Western Maine, and other industry professionals, the non-credit mechanized logging operations certificate program is designed to prepare professional equipment operators with the knowledge and skills necessary for productive mechanical forest operations. In classroom and hands-on settings, students will learn machine operation and basic repair, maintenance of equipment, harvesting laws, and regulations and safety. Graduates will be prepared to work in commercial forestry operations as a crane operator or equipment operator. This program is approved for the use of GI Bill® benefits.

Web-Based Training

Web-based, non-credit training is also available through a wide range of highly interactive courses that you can take entirely online. In addition, we offer online open enrollment programs designed to provide the skills necessary to acquire professional level positions for many in-demand occupations. A complete listing and registration options are available at nmcc.edu.

Customized Training for Organizations

Customized training will be tailored to meet the needs of groups, organizations and businesses and can be offered on campus or at the business location. A range of courses and workshops are offered in a flexible and creative manner to assist companies with their training needs. Professional staff members dedicated to contract training are available to provide information and assistance for securing funding support for training needs. Information about the customized training options are available by calling 768-2768.

Tuition & Fees

RESIDENCY

A student is classified as a Maine resident or non-resident for tuition purposes at the time of admission to a community college. No student, once having registered as a non-resident student, is eligible for resident classification unless he/she has been a bonafide domiciliary of the state for at least one year immediately prior to registration for the term for which resident status is claimed.

If the student is enrolled for a full academic program, as defined by the College, it will be presumed that the student is in Maine for educational purposes and that the student is not in Maine to establish a domicile as a permanent residence; thus, the burden will be on the student to prove that they have established a Maine domicile by the time of such registration. The domicile of the student who is claimed as a dependent for tax purposes follows that of the parents or legally appointed guardian of the student.

If a student classified as a non-resident marries a person who is domiciled in Maine and asserts the establishment of a domicile in Maine, the student shall be presumed to be eligible for resident status at such resident's next registration. In general, members of the Armed Forces and their dependents are normally granted resident status during the period of active duty.

Tuition	
2022-2024	
Resident	\$96 per credit hour
New England Regional Student Program	\$144 per credit hour
*New Brunswick Student	\$144 per credit hour
Non-Resident	\$192 per credit hour

NOTE: For planning purposes, 15 credit hours per semester may be considered average.

NOTE: Changing financial conditions, state legislative action and other considerations may necessitate adjustment of charges and expenses. The College reserves the right to make such adjustments as may, from time to time, be necessary in the opinion of the Board of Trustees.

*Students admitted under the MCCS/NBCC agreement are eligible to take classes at resident tuition rates. For more information on the agreement, contact the Admissions Office.

FREE TUITION INITIATIVE

To support the students who have been most impacted by the COVID-19 pandemic, graduates from the classes of 2020, 2021, 2022 and 2023 are eligible for two years of free tuition and mandatory fees at Northern Maine Community College.

To qualify, students must:

- Have a high school diploma or equivalent. This includes home-schooled students and students earning a GED or Hi-SET during those years
- Enroll full-time (waivers available for special circumstances) and remain on track for program completion
- Pursue an associate degree or academic credential
- Accept all federal and state grants and scholarships
- Participate in academic planning
- Live in Maine at the time of enrollment and while enrolled in the program
- Enroll during the 22/23 or 23/24 school years



STUDENT'S BUSINESS ACCOUNT

All monetary transactions are handled through the Business Office. Payment for all bills, including tuition, assessed fees, and room and board is due and payable on or before registration day for each semester.

Room & Board Fees	
Housing Deposit	\$100
Double Room with 19 meals/week	\$7,818
Double Room with 14 meals/week	\$7,018
Double Room with 12 meals/week	\$6,426
Single Room with 19 meals/week	\$8,666
Single Room with 14 meals/week	\$7,866
Single Room with 12 meals/week	\$7,274
Early Cancellation	\$350
<i>All residential students must purchase a meal plan</i>	

Mandatory Fees		
Registration	Full-time	\$13/semester
	Part-time	\$11/semester
Comprehensive		\$4/ Credit Hour
Information Service		\$6/ Credit Hour
Course	Lab	\$19/ Credit Hour
	Non-lab	\$9/ Credit Hour
Student Activity	Full-time	\$26/semester
	Part-time	\$13/semester
Health Services	Full-time	TBA
	Part-time	TBA
Accidental Insurance		\$16
Liability Insurance	Nursing Students	\$15
Liability Insurance	EMS Students	\$61.50
Liability Insurance	ECE Students	\$17
Orientation	Incoming 1st year students	\$35
Graduation	Seniors	\$65

NOTE: Books and supplies vary with demands of individual programs. Many trade programs also have additional costs for tools. Insurance costs are subject to change based on premium changes.

Tuition & Fee Changes

The Maine Community College System reserves the right to change in any manner, including increasing tuition or any other fees. While, where practicable, the College will attempt to give as much notice as each situation allows, the College reserves the right to make any such changes without notice.

Graduation Fee

A required \$65 graduation fee covers the cost of the graduate's academic credentials and other graduation expenses.

Refund Policy

Students terminating enrollment at NMCC before the completion of any given semester are entitled to a refund of tuition, assessed fees (as indicated in the fees section), and room and board, based on the date official notification is given to the college or the last date of attendance, whichever is latest.

Students withdrawing from NMCC should go to the student affairs office to complete a withdrawal form. This will expedite the processing of any refund due. All refunds will be made in accordance with the official date of withdrawal. The refund will be based on the current policy of the Maine Community College System.

For tuition and fees refunds, a student who officially withdraws from courses within six business days of the semester's first day of classes will receive a 100 percent refund of each dropped course. Withdrawal between seven and 10 business days of the semester's first day of classes will result in a 50 percent refund. No tuition refunds are awarded for withdrawal after the first 10 business days of the semester's first day of class, or for unofficial withdrawal at any time. Official withdrawal from a college residence prior to the semester's first day of classes will receive a 100 percent refund.

Those officially leaving housing by the end of the semester's second week of classes will receive a 80 percent refund. By the end of the third week of classes is a 60 percent refund. By the end of the fourth week of classes is a 40 percent refund. By the end of the fifth week of classes is a 20 percent refund. Official withdrawal from campus housing after the fifth week of the semester, or unofficial withdrawal at any time, will result in no refund.

Alternative meal plans may be established by the college President based upon approved board charges. Refunds for alternative meal plans follow the guidelines above.

The financial aid awarded is based upon the expectation that a student will complete the entire period for which aid is awarded. Students withdrawing from college before the term completes are subject to the pro-rata refund policy and may be required to repay disbursed financial aid. The total refund amount is calculated on a pro rata basis through 60 percent of the payment period (payment period is semester of enrollment).

The period of enrollment will be based on calendar days. Scheduled breaks of five consecutive days or longer will be excluded from the calculation, based on the regulations set forth by the Higher Education Amendments of 1998.

Students who feel that individual circumstances warrant exceptions from the published policy may appeal by completing the Withdrawal & Tuition Refund Appeal form located on the portal.

Appeals may be made under the following reasons: death of an immediate family member, the student's medical incapacitation, military duty or computational/administrative error by the College. The complete appeal process is outlined on the appeal form. Refunds for non-credit courses are determined on an individual basis.

Student Payment Plan

The College offers students the option of paying for college expenses in monthly installments over the course of the semester. Required payments will be approximately 25 percent of the balance owed the College after considering financial aid, scholarships and other support from outside agencies. If a payment is not made by the due date, the balance is immediately due.

Transcript Fee

Students requesting a transcript be sent to a business or another college must sign a transcript release form. These forms are available in the registrar's office as well on the college website (nmcc.edu). NMCC has partnered with Parchment, Inc. to provide our students with a secure, online method for requesting transcripts. Parchment transcript request service is simple, secure and available 24/7. The cost of an official transcript through Parchment is \$6.00.

Delinquent Payment

The Maine Community College System Board of Trustees authorizes the college presidents to withhold grades, degrees, academic credentials and transcripts from students for failure to pay all lawful fees and charges.

Student Credit Balances

Payment of student credit balances will be made to students no earlier than the day following the completion of four weeks of classes of each semester*. Student credit balances will be mailed to the student's address on file by the College.

Student Loan Checks

Student loan checks will be available for disbursement no longer than 30 calendar days from the college's receipt of the loan(s) in accordance with U.S. Department of Education regulations.

NOTE: First time federal student loan borrowers must be in attendance a minimum of 30 calendar days in the semester in which they receive their first student loan before any loan proceeds may be disbursed to them.

Laptop Purchasing Program

All students are required to have a notebook-type computer with wireless internet capability and camera. Minimum specifications are available from the IT office. We do not recommend chrome books or Windows S mode laptops. Computers are available for purchase through the college bookstore.

Financial Aid

FINANCIAL AID

The purpose of financial aid is to serve students who need assistance in meeting the basic cost of their education. Because funds are limited, federal and state regulations require that these funds go to students who demonstrate financial need. This section outlines the application procedure, how student need and eligibility are determined, and some of the major financial aid programs available at NMCC. For more information, students who think they may be eligible for financial aid should visit the Financial Aid Office in the student affairs area located in the A.K. Christie Building.

How to Apply for Aid

1. Apply for admission to the College.
2. Get a Federal Student Aid ID number at <http://www.fsaaid.ed.gov> to electronically sign FAFSA (Free Application for Federal Student Aid).
3. Access and complete the FAFSA at www.fafsa.ed.gov.
4. School code is 005760.
5. Complete the NMCC confidential financial aid application.
6. Complete and return all forms requested by the financial aid office.

NOTE: Priority is given to early applicants.

All documents must be received before the processing of a student's financial aid award. A new application with supporting documents must be filed every academic year for financial aid. Eligible students will be offered a financial aid award consisting of a combination of grants, work and/or loans.

Financial aid consists of programs which are funded and regulated by the federal and state governments. The programs are of three different kinds: grants, work-study and loans.

Grants

A grant is money for which students do not have to work or repay. Students with bachelor's degrees are not eligible for grants.

Federal: Pell Grants range from \$700 - \$6,895 annually.

Federal Supplemental Educational Opportunity Grant (FSEOG): Awarded according to a formula based on student need and generally will range from \$300-\$600 per academic year.

State of Maine Grants: Provide college scholarships to Maine residents whose family resources are not sufficient to meet the cost of higher education. Awards are based on student need and generally will range from \$750 to \$1,500 per academic year.

NOTE: FAFSA must be received by May 1 for State grant.

Work-Study

Work is offered under the Federal Work-Study program to students who are found eligible for financial aid.

Federal Work-Study (FWS) allows students to earn money through part-time work while classes are in session and full-time work during vacations and summer. Jobs are available on campus, throughout the community and with the America Reads program in the elementary schools. This work can add to the educational experience and be a valuable asset when seeking employment after graduation.

Loans

Loans are money which students borrow now but must be paid back after leaving college. Students with bachelor's degrees may be eligible. Students receiving loans are required to do both an entrance and an exit on-line counseling session. Federal Direct Student Loan Programs that NMCC students may participate in include:

1. Federal Direct Subsidized Loans
2. Federal Direct Unsubsidized Loans
3. Federal Direct PLUS Loans for Parents
4. Alternative Education Loans

NOTE: If the student transfers to or from another college and wishes to delay loan repayments, a deferment/forbearance request is obtained from the lender and must be submitted to the lender.

Scholarships

Annually, the NMCC Scholarship Committee evaluates applications for scholarships awarded by the Northern Maine Community College Foundation as well as privately sponsored scholarships offered to students currently attending or transferring to NMCC. Scholarships are available to both first year and second year students. Students may apply for these scholarships online through the financial aid section at my.nmcc.edu.

College Policy and Procedures on Financial Aid

All financial aid at NMCC is administered in accordance with policies and procedures which have been established nationally. The basis of such programs is the belief that students and their parents have the primary responsibility to meet educational costs and that financial aid is available only to fill the gap between the family's and/or student's contribution and allowable educational expenses. The amount of expected student or family contribution is determined by a careful analysis of financial strength: income and net assets versus the allowable expenses which the family may have.

Education expenses which are considered a basis for establishing student need include tuition, fees, books and supplies, room, board, tools, transportation and personal expenses. The NMCC Financial Aid Office has an established student budget to reflect the costs of each of these items based on local cost data.

General Eligibility for Financial Aid

Specific eligibility requirements vary from program to program. The following criteria apply to all financial aid programs.

To receive financial aid, a student must:

1. Have a high school diploma or equivalent.
2. Be enrolled or accepted for enrollment in an eligible program leading to an associate degree or certificate.
3. Be a U.S. citizen, permanent resident, or refugee with an appropriate visa.

4. Have demonstrated financial need.
5. Maintain satisfactory progress in a course of study according to the standards and practices of NMCC.
6. Not owe a refund on a Pell Grant or Supplemental Grant at NMCC.
7. Not be in default on any: Federal Family Education Loan, Perkins (National/Direct Student) Loan, Stafford Loan (formerly Guaranteed Student Loan) or Unsubsidized Stafford Loan.
8. Have met legal requirements for selective service registration.
9. Complete their academic program of study within 150% of the program's catalog time for completion.

NOTE: Current federal regulations now prohibit the awarding of Pell Grants for more than 12 full-time semesters of collegiate attendance. Only courses required in your academic major are eligible for financial aid. While financial aid rules do not prohibit individuals from taking courses outside of your program of study, those courses will not count toward the determination of the financial aid load.

1/2 time = 6-8 credit hours in your program of study (major) per semester

3/4 time = 9-11 credit hours in your program of study (major) per semester

Full time = 12 or more credit hours in your program of study (major) per semester

Determining Financial Need

The amount of financial aid is subject to available federal and state funds. The type of aid and amount received will be determined by the Financial Aid Office. Financial aid awards are based on demonstrated financial need which is the difference between allowable educational expenses and the total of the parents' expected contribution and/or the student's own expected contribution.

Contributions are determined from the financial aid application and other documentation as required, such as the Federal Income Tax transcript of the parents and/or student. All information is held in strictest confidence.

Financial Aid Probation or Disqualification

Students must be matriculated in an academic major and maintain satisfactory academic progress (SAP) to be eligible for financial aid. SAP for financial aid includes meeting or exceeding College grade point average requirements (qualitative measurement) and PACE (quantitative measurement).

Academic progress is assessed at the end of each academic term, as stated in the handbook. Additionally, students must earn a cumulative total of 67 percent of credits attempted each term (PACE). Students failing to earn 67 percent of credits attempted in a given semester and/or failing to meet College academic progress requirements will automatically be placed on Financial Aid Warning. Any student placed on Financial Aid Warning may receive Title IV aid for the subsequent payment period. Failure to reestablish SAP as assessed at the end of the subsequent term will result in the loss of Title IV aid.

In order to comply with the Satisfactory Academic Progress standards for financial aid, students must have a 2.0 cumulative grade point average (GPA) at the end of the equivalent of two full academic years (64 credits).

Students who accept funds for a specified number of credits but who either drop credits or withdraw from school, thereby completing fewer credits than anticipated, will be placed on financial aid probation or disqualification, as applicable.

Students in default on any Perkins or Stafford Loan or any other federal or state-insured loans at NMCC will be disqualified from subsequent aid until repayment or satisfactory arrangements have been made.

Students who owe a refund on a Pell Grant or SEOG at NMCC will be disqualified from subsequent aid until repayment or satisfactory arrangements have been made. A student who has been denied financial aid for any reason or who wishes to request a waiver of the financial aid policy has the right to file an official appeal. Forms are available on the NMCC portal. For more information contact the Financial Aid Office.

If a written petition is denied, students have the right to a personal appeal. If a personal appeal is denied, students have the right to appeal to the Financial Aid Advisory Committee, consisting of administrators, faculty and staff. The committee's decision is final.

Right to Information

Students have the right to a full explanation of NMCC financial aid programs, policies and procedures. Complete information is contained in the NMCC Financial Aid Policies and Procedures Manual and the other written regulations available in the Financial Aid Office.

For information on academic programs and facilities, faculty, accreditation, refund policies and non-discrimination policies, see the appropriate section of this catalog.

Disbursement of Financial Aid

See *"Student Credit Balances"* and *"Student Loan Checks"* in the *Student's Business Account* section of this catalog.

VETERANS, NATIONAL GUARD & RESERVES EDUCATIONAL BENEFITS

Programs at the College are approved by the Maine State Approving Agency for the Education and Training of Veterans and other GI Bill® eligible persons. There are several GI Bills®:

- Three for active duty service members, depending on dates of service
- One for disabled veterans with service connected disabilities
- One for spouses and children of totally disabled or deceased veterans resulting from service connected conditions
- Two for members of the Selected Reserve

NOTE: Veterans receiving monthly non-educational benefits must include those amounts on their FAFSA form.

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

Staff in the Financial Aid Office assist veterans, their dependents and members of the National Guard/Reserves in determining their eligibility for education benefits through a program administered by the Department of Veterans Affairs and provides assistance in filing for benefits.

Programs administered by the VA include:

- Montgomery G.I. Bill®: Chapter 30 (Active Duty Educational Assistance Program)
- VEAP: Chapter 32 (Post-Vietnam-era Veterans Educational Assistance Program)
- Vocational Rehabilitation: Chapter 31 (Disabled Veterans)
- Post-911 G.I. Bill®: Chapter 33
- Survivors' and Dependents' Educational Assistance: Chapter 35

- Montgomery G.I. Bill®: Chapter 1606 (Selected Reserve Educational Assistance Program)
- Reserve Educational Assistance Program: Chapter 1607 (Program for Selected Reservists who are called to active duty for at least 90 days)

As each program has a different set of eligibility, filing and compliance rules, students are encouraged to schedule an appointment with the Director of Financial Aid for an explanation of program benefits and requirements.

MAINE NATIVE AMERICAN TUITION WAIVER POLICY

Northern Maine Community College proudly serves all students and maintains the goal of assisting students in achieving a post-secondary education while keeping costs as low as possible. Northern Maine Community College waives all or a portion of tuition charges for matriculated students who are Maine residents with documentation of their membership or ancestry in a Maine-based Native American tribe.

Waiver Eligibility

To qualify for an NMCC Native American tuition waiver, the student must meet the following criteria:

- **Tribal Membership or Ancestry:** The student must be included on the current tribal census or have at least one parent or grandparent included on the current tribal census of the Passamaquoddy Tribe, the Penobscot Nation, the Houlton Band of Maliseet or Aroostook Band of Micmac.
- **Maine Residency:** The student must meet NMCC's criteria to qualify for in-state tuition charge.
- **Enrollment:** The student must be accepted into a degree or certificate program and enrolled in credit-bearing courses at NMCC. The student must remain in good academic standing as defined by the College and maintain satisfactory academic progress as defined by Title IV Federal financial aid regulations.
- **NMCC Native American Waiver Application:** The student must complete and submit a NMCC Native American Tuition Waiver Application to the NMCC Financial Aid Office. This application is available in the Financial Aid Office and on the NMCC portal. Once eligibility is established, re-application is not necessary.
- **Financial Aid Application:** Applicants for the Native American Tuition Waiver must complete the Free Application for Federal Student Aid (FAFSA) annually as soon as possible after January 1 and provide the documents required for determining aid eligibility. Applicants must meet the general eligibility requirements for receiving federal student aid.
- **Waiver Amount:** The waiver is equal to the in-state tuition charged to the student in a semester less any Federal or state need-based grants or scholarships for which the student qualifies. Other restrictions apply: charges other than tuition are not waived; tuition is not waived for courses with a grade of NS (no show).
- **Duration of Eligibility:** Eligibility for the waiver ends after the student has completed one degree or two certificate programs from NMCC or up to 90 attempted credit hours from NMCC, regardless of whether or not the student has earned a credential. Native Americans who have already achieved an associate degree or two certificates from Northern Maine Community College and have been laid off due to downsizing or business closure may appeal to use this scholarship for another program to develop new employment skills. Appeals should be sent to the Assistant Director of Financial Aid, Northern Maine Community College, 33 Edgemont Drive, Presque Isle, ME 04769.



Student Affairs

STUDENT AFFAIRS

The staff of the student affairs office provides a wide variety of services and experiences that complement academic pursuits at NMCC. The College strives to foster an educational environment that empowers students to assume personal responsibility for their education, social and professional development, as well as for their emotional and physical health and well-being. The Dean of Students administers the area and encourages students to make use of available services, programs, facilities and development opportunities.

Admissions Office

The Admissions Office provides information about NMCC to prospective students and helps students throughout the admission process. Staff serves students who wish to apply for a second degree or continue studies after graduation.

Career Planning & Placement

Career planning and placement assistance is available from several sources at NMCC. The student affairs staff, as well as individual instructors, are willing to help graduates find jobs in their field. Because of their job market knowledge and employer contacts, instructors are often excellent sources of assistance. Each spring, seniors benefit from a strong effort to help them secure employment.

The Student Support Office delivers information, workshops and assistance to aid students exploring career options and future plans. We encourage students to consider careers that are non-traditional for their gender. Informational sessions are held regularly on a wide-variety of job-search and career planning topics.

College Central Network is NMCC's career services website designed to meet students' career planning needs. Students have access to job boards and hundreds of articles, videos, and podcasts pertaining to various career-related topics including resume assistance and interview preparation. Please visit: <http://www.collegecentral.com/nmcc/Student.cfm> and click "Activate" to create your account. If you have any questions or need assistance creating an account, please contact the Counseling Office at 768-2839.

Counseling Services

Counseling is offered to students through the student affairs office. Services available include: academic, personal and career counseling; student advocacy; coordination of related support services, including childcare and emergency transportation assistance; referral to other service providers; and coordination of special accommodations for disabled students. Inquiries should be made to the Director of Counseling at 768-2747.

Financial Aid Office

The Financial Aid Office provides counseling and assistance in obtaining aid from a variety of funding sources. Financial aid brochures, available in the office, provide information on sources of aid, application procedures and NMCC financial aid policies. (See the Financial Aid section for more information.) The office is also responsible for certifying qualified veterans for appropriate VA education benefits.

Registrar's Office

The Registrar's Office maintains official records for each past and present NMCC student. These records are maintained in full accord with the Family Educational Rights and Privacy Act. (For details on student files and the policies ensuring their privacy, please see the section on confidentiality of student records under academic information.)

Students who wish to have a transcript of their record sent to another academic institution or prospective employer must make their request in writing to this office. Also, students can register for classes, drop or add courses and file graduation application forms here.

Students are invited to contact the Registrar's Office with questions they may have about their records. The office is responsible for the evaluation and granting of credit earned at other institutions by students transferring to NMCC.

Services for Students in Academic Jeopardy

Students who are on academic probation, or who have not met the minimum standard to advance in a major program of study, or who are in pre-probationary academic difficulty, are required to meet with a college counselor to develop a written plan for academic success. This plan may include a reduced course load, re-taking courses, establishing a tutoring schedule, enrolling in a study skills class or workshop, reducing outside commitments, extending an expected graduation date, or participating in career counseling, etc. After this plan has been completed, the student will meet with the counselor regularly during the semester to monitor academic progress.

TRiO/Student Support Services Program

This student support services program is federally funded and offers a wide range of services to eligible students. In order to participate in this program, a student must have low income status (as defined by federal guidelines), or be a first-generation college student, or have a disability. Academic, personal and career advising; tutoring; assistance with the financial aid process; job search and job placement workshops; and transfer advising are among the services provided to program participants. Enrollment is limited. For more information, contact the program's director at 768-2747.

LEARNING RESOURCES

A variety of learning resources are available to assist students. Rooms for reading, research, completion of projects and quiet study are available in the College's library. The Library also has a group study room available for student use. Individual and group study areas are also available in the Academic Success Center, Akeley Student Center and lounge areas.

Academic Success Center

The Academic Success Center (ASC) offers a variety of services that are free and available to all NMCC students. Students may be referred to the ASC by an instructor/counselor or seek these services themselves. A student may want to obtain feedback on a writing assignment, review for an exam, receive help with a homework assignment, complete assignments on a computer, receive supplemental instruction from instructors or peer tutors, improve study skills, or study individually or in a group. Services/facilities include: individual and group tutoring; writing resource center; math lab; on-line study skills information; academic success workshops; and supplemental instruction.

Library

The E. Perrin Edmunds Library offers a welcoming and comfortable environment on campus where students, faculty, and staff meet, study, collaborate, learn, and relax. The library provides print and online collections to support the curriculum and mission of the college. Diverse resources are available to encourage academic investigation, personal growth, and access to all points of view. The Library serves students, faculty, staff, and the community.

Information-literacy instruction and reference and research assistance is available in person, online, and in classrooms. The library is committed to teaching students how best to collect, evaluate, and use information effectively. NMCC's definition of an information-literate student is one who can clearly articulate information needs, confidently search for and access information from a variety of sources, and evaluate and use the information ethically and legally for research and personal purposes.

Our library adheres to the American Library Association's Library Bill of Rights and Association of College and Research Libraries Intellectual Freedom Principles for Academic Libraries. We embrace and affirm the principles of equity, diversity, and inclusion in our library.

For additional information about library services, events, hours, staff, and policies, visit the library's web page at www.nmcc.edu/academics/support/library/. The library is open to the public.

CAMPUS HOUSING

Campus housing at NMCC includes Andrews Hall, Snow Hall, and Penobscot Hall. Andrews Hall houses approximately 40 students in large single rooms equipped with single beds, chests of drawers and desks. In Snow and Penobscot Halls, there are suites and quads designed for 4-5 individuals. Each suite has 3 bedrooms, a split bathroom, and common living room. Each quad has two double-bedrooms, a full bathroom, and a common living room. All suites and quads come furnished with bedroom and living-room furniture.

All students living on campus must purchase a 19, 14, or 12-meal per-week plan. Resident rooms and suites have internet access through campus Wi-Fi. Students living on campus must abide by the Student Code of Conduct as explained in the NMCC Student Handbook and the individual housing agreement. Violations may result in termination of the agreement.

Occasional Housing

For individuals needing only occasional or temporary campus housing, a limited number of rooms are available for a modest fee. Dining privileges are included.

Family Housing

A limited number of apartments are available for NMCC students and their families. Qualifying family members may include: a legal spouse/registered domestic partner, at least one child (including step) up to 18 years of age, and/or grandchild up to 18 years of age for whom the student is legally responsible. Designated units cost \$750/month. Each unfurnished, two-bedroom unit has one full bathroom and a kitchen. The included utilities are: heat, internet, electricity, water/sewer and trash removal. Meal plans are not included with the family housing options.

For more information on campus housing, occasional housing, and family housing, contact the Director of Residential Life at (207)768-2795.

REED DINING COMMONS & COLLEGE STORE

Dining facilities are located in the newly remodeled Reed Dining Commons. Residential students purchase a meal plan along with a housing plan. Anyone else wishing to purchase a meal is welcomed during meal time service. An a la carte food service, in addition to take-out, beverages, snacks, etc., is available in the College Store located in the Akeley Student Center. Meal swaps or equivalencies can be used, for residential students at the College Store.

BOOKSTORE / LAPTOPS

The NMCC Bookstore is managed by Barnes & Noble. Each student is required to provide at his or her expense all necessary textbooks, equipment and supplies. For more information go to: <http://nmcc.bncollege.com/shop/northern-maine/home>. In addition to required books and classroom supplies, the college bookstore offers a wide variety of other collegiate items such as pens, pencils, notebooks, clothing, and mugs. Students may transfer financial aid funds to the bookstore to purchase a laptop from models offered by Barnes & Noble.

MOTOR VEHICLES

Students and employees have the privilege of using a vehicle on campus. All vehicles must be registered through the Security Office. Vehicles that have no parking permit affixed or are parked inappropriately or in non-designated areas, will be ticketed and fines will be assessed. Any damaged caused by vehicles to lawns, shrubbery, etc. will be assessed to the operator. Vehicles, like other personal property, are the sole responsibility of their owner. For the complete Parking Policy, please refer to the College's portal.

ATVs and snowmobiles are permitted on campus, but must also be registered. Recreational vehicles are not to be operated on any campus roadway, walkway, parking lot or other thoroughfare. Use is restricted to open fields and areas away from campus buildings.

Emergency, maintenance and campus security are the only vehicles permitted on any walkway. Failure to comply with vehicle use policies may result in the revocation of vehicle privileges.

STUDENT SENATE / ACTIVITIES

The Student Senate is the governing body for all student activities and serves as the official student voice on campus. The senate includes at least one member from each academic area and functions under its own constitution and by-laws.

The Student Senate assists the student affairs staff to plan and promote a wide variety of activities for the campus community. New clubs and groups are formed whenever the demand arises, and ideas for new organizations are always welcome. Swimming, skiing, movies, cookouts, hiking, biking and rafting trips are some of the activities sponsored by the student senate and staff coordinators. The school's gymnasium and wellness center are readily available for student use.

NMCC promotes leadership, physical health and wellness through intramural activities. Activities may include basketball, softball, volleyball, soccer and tennis. An esports team was formed in Fall 2019. Other activities may be added at any time if enough interest is shown. All individuals are encouraged to participate.

STUDENT RIGHT TO KNOW

Student right to know information is available on the college web site (Consumer Information link), upon request from the student affairs office or from the U.S. Department of Education's web site.

ACCESSIBILITY

Facilities at NMCC are designed to be accessible by persons with disabilities. The College is Committed to providing, whenever possible, equal opportunities to all students, including assessment of and modifications to facilities and programs to accommodate individual needs. Inquiries should be directed to the Director of Counseling.

NOTE: Students requesting specific accommodations have the responsibility, under the Americans with Disabilities Act or the ADAAA of 2009, of making sure that the college is aware of the need.

Specifically, students should:

1. Request the relevant adaptation in writing, and
2. Provide documentation of that need to the satisfaction of the College.

Once these responsibilities are met by the student, the College will attempt to provide the accommodation. Documentation of need should accompany the request if possible. A minimum of 30 days of lead time is suggested.

For more information visit: www.nmcc.edu/academic/support/student-services/disabilities.

STUDENT GRIEVANCE PROCEDURE

Students who have a grievance or complaint regarding an abridgement of rights have recourse to a student grievance procedure. A copy of the entire procedure can be found in the student handbook and in the Student Affairs Office. In case of physical assault or sexual harassment (as defined by Maine law), the process for filing complaints is outlined in the student handbook. Students questioning their assigned grades can appeal that grade through the Academic Dean.

The affirmative action officer for NMCC is identified on the inside cover of this catalog, on the NMCC website, in the student handbook and at orientation activities. A student in doubt about the proper procedure for filing a complaint or grievance should seek direction from the affirmative action officer.

STUDENT HANDBOOK

The student handbook is updated annually and is available to all students. It contains information about policies, procedures and regulations, explains the Community College Student Code of Conduct, and delineates both students' and institutional rights and responsibilities, particularly with respect to issues of discrimination and sexual harassment.

IDENTIFICATION CARDS

Identification cards are issued to all students and employees. This card enables access to the library, residence halls, some classrooms and college facilities. Access to college events and discounts at other community events may be available with your NMCC ID card. Replacement fee is \$25.



Academic Information

ACADEMIC INFORMATION

Programs of Study

The mission of Northern Maine Community College is to provide career and transfer programs that lead to associate degrees or certificates. Each credential provides the opportunity to acquire the knowledge, skills, and values that are essential for a career or transfer to a college or university.

NMCC offers 12 associates in applied science, two associates in science, and one associate in arts degree, as well as, 24 certificates through five academic departments: Arts & Sciences, Business Technology, Emergency Medical Services, Nursing and Allied Health, and Trade and Technical Occupations.

- The Associate in Arts Degree (AA) is intended to provide a basic foundation for a Bachelor of Arts Degree program.
- The Associate in Applied Science Degree (AAS) is intended to provide the preparation necessary for potential employment in an occupational specialty.
- The Associate in Science Degree (AS) is intended to provide the preparation necessary for potential employment in an occupation specialty and/or a basic foundation for a Bachelor of Science Degree program.
- A certificate is awarded for specific studies that one can complete in a one-year program or less. Certificates can be the final goal or first step in developing, changing, or upgrading your career.

Delivery of Academic Programs

Courses in academic programs at NMCC are taught in a variety of formats: traditional classrooms and laboratories; interactive web conferencing, media-enhanced classrooms; and individualized learning experiences such as independent study, internships/externships, practicums, field experience and distance education.

Distance Learning

Northern Maine Community College's distance learning courses offer a complementary alternative to the traditional in-person learning environment. These course formats allow students to engage with and complete courses from any location. Currently, NMCC uses the learning management system D2L by Brightspace and the web-conference software ZOOM to conduct courses from a distance.

Distance learning courses require a computer, basic computer skills and reliable internet access. They may also require supplemental hardware and software.

Online: Courses are delivered online using the institution's LMS. A computer or laptop is recommended for participating in and completing online course work. Students interact with their instructor and classmates via online discussions, assignments, group projects and adhere to deadlines set within the LMS and course syllabus. If the suffix number for a course is 20-25, the course is being offered online.

Hybrid: Instruction is split between learning activities in the LMS online and the rest of the time learning in-person, in the classroom(s) or laboratory setting. If the suffix number for a course is 26-30, the course is being offered as a hybrid course.

NMCC offers a limited number of hybrid and online classes. A hybrid format, means that only a portion of the class is conducted online. On-campus testing is usually required. The ultimate goal of these educational formats is to offer a wide array of individual courses and programs to students enrolled at NMCC who are interested in interactive learning. Online courses allow both traditional and non-traditional students the opportunity to pursue an education that may not have been available because of scheduling or traveling limitations.

Skills Assessment

Assessment of basic academic skills is required of all full-time students and may be required of part-time students. Performance on skills assessment testing may affect students' acceptance into a program at the College. Results will be used for appropriate placement in English, and mathematics courses.

Course Registration

Each student will begin the semester with a class schedule for which they have previously registered. Adjustments to that schedule may continue throughout the add/drop period, which usually is the first week of the semester. It is important that you follow the Add/Drop Policy which can be found later in this section of the course catalog.

Courses in automotive, diesel hydraulics and structural welding are taught sequentially throughout a semester. Students may register for those courses prior to the first-class meeting.

Full-Time Student Status

At NMCC, 12 credit hours or more per semester is considered full-time. Most other agencies and programs, including financial aid, veterans assistance, Social Security Commission and insurance benefits, also consider a full-time course load to be at least 12 credits per semester. To complete an associate degree in four semesters or fewer, most programs will require more than 12 credits to be completed each semester. (See the Curricula section for specific program requirements.)

Matriculation Policy

Matriculation is the formal registration of a student into a program leading to a certificate or associate degree. A matriculated student is one who has met prescribed admission requirements, has been officially admitted to a program of study and has registered for a course in the curriculum.

Matriculated students maintain their status for ten calendar years from the first semester of course registration at the College. A student must successfully complete a minimum of three credit hours each academic semester or an application for re-admission must be filed with the Admissions Office.

To maintain matriculation status under a given program, a student must request a leave of absence from the Dean of Students for any semester during which he or she is not enrolled in any courses.

Minimum Residency Requirement

All associate degree and certificate programs require that students satisfactorily complete a minimum of the program requirements directly from NMCC courses. All students must complete at least 25% of the program credit hours directly through the College. Credits received for all prior learning, including challenge and standardized exams, portfolios, apprenticeship and work experience, articulation agreements and transfer credit will not count towards meeting the academic residency requirement.

Non-Degree Student Status

Anyone interested in taking courses without enrolling in a degree program may do so by signing up for the course(s) during registration. Non-degree students do not need to apply for admission to the college in order to take a course(s). However, if they intend to register for more than 11 semester hours, they must obtain permission from the Dean of Students. Non-degree students are not eligible for financial aid.

Academic Advising

Every full-time NMCC student enrolled in a program is assigned an academic advisor who assists in course selection and offers general information concerning the student's academic life.

Students may check at the Student Affairs Office early in their first semester to learn the name of their academic advisor. The academic advisor is usually the student's major instructor for their chosen program of study. This information is also available on the student portal.

Students are encouraged to see their advisor as often as necessary to make certain they are taking courses that are appropriate to their academic and career plans. The advisor should also be consulted before students add or drop courses or change a program of study. Each semester, during a designated registration period, students meet with their advisor and register for the next semester.

Students should monitor their own academic progress. Descriptions of specific courses are in this catalog. Program curriculum sheets, which list specific course requirements for each academic program are available from several offices on campus or by accessing the College's web site.

Attendance

Class attendance is the student's responsibility. Regular attendance and punctuality for all classes is expected. Attendance is recorded in the learning management system, every class period. To encourage students to accept their responsibility to attend class, the following policy is established: Class attendance is a matter between the instructor and the student. Instructors are obligated to announce and interpret a specific attendance policy for their classes at the beginning of the semester, by way of their course syllabus. Faculty are encouraged to be considerate of students with special circumstances.

Excessive absences may interfere with successful completion of a course. Once a student violates the instructor's class attendance policy, the instructor may issue the student a grade of "AF" (Attendance Failure). This grade designation will be treated as an "F" in the calculation of the student's grade point average. Students may appeal instructors' actions to the Academic Dean for review.

Add-Drop Policy

1. A student may add or drop a course during the first week of any semester without any academic or financial penalty.
2. A student may drop any course through the 12th week of the semester and receive a grade of WP (Withdrew Passing) or WF (Withdrew Failing).
3. After the 12th week, the grade earned is recorded and will affect the GPA.

Withdrawing from a course could have adverse effects on financial aid as well as graduation requirements. Please talk with an advisor or counselor before dropping a course.

NOTE: Refunds of tuition and fees will be 100 percent for the first 6 business days of a semester, 50 percent between 7 and 10 business days with no refunds after that date. For abbreviated semesters, the above drop policy and any associated refunds will apply for the proportional equivalent in time.

Withdraw From NMCC

Any student withdrawing from NMCC is expected to complete an official withdrawal form which may be obtained from the office of the Dean of Students and complete an exit interview.

When circumstances prevent this, the student or parents should write to the Dean of Students concerning the reason requiring the students to leave. The date of withdrawal will be the date the student signs the withdrawal form; a grade notation of AW (Administrative Withdrawal) will be indicated on a student's academic transcript for those students who have been involuntarily separated from the College (examples: disciplinary dismissal, non-payment of bills, lack of attendance, etc.).

Off-Campus Center

NMCC offers program courses at the Houlton Higher Education Center. Courses may be offered at other locations, depending upon student or community needs.

Credit courses are organized at various times and locations on the basis of need, interest and availability of suitable facilities. The offerings are selected to meet predetermined community needs and to offer expanding technical and career programs. The course offerings are also designed to furnish an opportunity for intellectual pursuit and continuing education to those who may not wish to work toward a college degree or who may already have one. The courses follow the same academic standards that apply in the on-campus program.

Class size is determined on a class-by-class basis and takes into consideration the subject matter, need for the course, the location and the impact it will have on the institution, including resources and the students enrolled.

Attempts are made to offer courses at times which are convenient for most adult students with responsibilities of job and family.

Grading System

Northern Maine Community College bases its grade point average (GPA) on a 4.00 grading scale. Letter grades used at NMCC to evaluate academic achievement are as follows:

Grading System		
93-100	A	4.00
90-92	A-	3.67
87-89	B+	3.33
83-86	B	3.00
80-82	B-	2.67
77-79	C+	2.33
73-76	C	2.00
70-72	C-	1.67
67-69	D+	1.33
63-66	D	1.00
60-62	D-	0.67
Below 60	F	0.00

Other Grade Symbols	
AF	Attendance Failure (0.00)
AP	Advanced Placement
AU	Audit
AW	Administrative Withdrawal
CE	Challenge Exam
CL	CLEP Exam
CR	Credential Review
E	(Pass/Fail) Failed
I	Incomplete
ME	Military Experience
NA	Never Attended
NG	No Grade
P	(Pass/Fail) Passed
QT	Qualify via Articulation
R	Course Retaken - Most recent grade used
*	Course Retaken
T	Transfer Credit
W	Withdrew
WE	Work Experience

In order to graduate from any prescribed program of study (i.e. certificate or associate degree), a student must have a cumulative grade point average of at least 2.00.

Academic warnings may be issued at mid-semester to any students whose performance has fallen below NMCC's academic standards.

Course Grade Appeal

The sole responsibility of evaluating student performance and assigning course grades rests with the course instructor. Barring a grade change due to the miscalculation of a course grade or due to a successful appeal of a course grade by the student, all course grades are to be considered final. If a student believes that a final grade was unfairly derived (i.e., that the grade was determined utilizing criteria different from that for other students), the student may formally appeal that grade.

First, the student must submit to the instructor a written request for clarification of the grade (e-mail correspondence is sufficient; however, the student must keep a copy of what was sent). The appeal process cannot proceed without verification that this communication has occurred. After clarification, if the student still wants to appeal the grade, they should contact the department chair for the course for which the grade was submitted in order to be advised on the appeals procedure.

Repeat Courses

If a course is repeated, the latest grade of the retaken course is used to calculate the grade point average.

Auditing Courses

Students may audit any course, provided space is available and they pay regular course costs. When a student audits a course, neither a grade or course credit is given. A student may not change a course from credit to audit after the add/drop period. If you are interested in auditing a course, see the Registrar for the audit application form. The form is also available on the NMCC portal.

Academic Progress

A minimum grade point average of 2.0 is required to graduate with a certificate or degree from Northern Maine Community College. This implies that any course grade below a C may put a student's graduation in jeopardy and/or indicates that the student's academic progress is in question. Further, satisfactory progress requires that a student earn a minimum of a C grade (2.0 grade point) in each major course within their program of study. Major courses are clearly identified in the curricula section of this catalog.

For associate degree programs, the faculty have carefully developed each program of study to provide students with the opportunity to maximize their knowledge and skills within four semesters. This achievement requires a substantial commitment to the learning process by the student. There are many campus resources available to aid students in their efforts toward academic success. These include tutorial services in the Academic Success Center, developmental studies classes and study skills workshops, class attendance requirements, mid-term warnings, and faculty assistance.

Students are encouraged to contact their academic advisor, department chair, the Academic Dean, the Dean of Students or the Director of Counseling for assistance or to discuss their academic progress.

Probation & Dismissal Policy

Students who do not earn a minimum 2.0 cumulative grade point average may be placed on academic probation or dismissed from the college. The probation and dismissal policies are outlined below:

Academic Probation – Signifies that a student is in serious academic jeopardy. A student on probation must remove grade deficiencies during the subsequent semester or during summer session. Failure to do so may result in academic dismissal from the College. Students on academic probation are required to carry a reduced class load (fewer than 15 credit hours) and may be restricted from participation in extra-curricular activities. Probation and dismissal standards are outlined in the following chart:

Students in two-year (4 semester) program:

Cumulative Credit Hours	Cumulative GPAs Ranges Result In:	
	Probation	Dismissal
12+	1.25 to 1.75	1.249 or lower
30+	1.50 to 1.75	1.499 or lower
45+	1.75 to 1.99	1.749 or lower

Students in one-year (2 semester) program:

Cumulative Credit Hours	Cumulative GPAs Ranges Result In:	
	Probation	Dismissal
12+	1.50 to 1.99	1.499 or lower

**Students are not assessed for probationary or dismissal status until they have accumulated 12 credit hours of graded study.*

A student on academic probation must achieve a cumulative grade point average sufficient to exceed the probationary standard or a semester grade point average of 2.0 during each probationary semester. Failure to achieve this standard may result in academic dismissal.

Academic Dismissal – Students who have been academically dismissed may appeal to the Academic Dean for re-instatement in a program for the following semester. They may request re-admission to the College by formally reapplying not earlier than one semester after the date of dismissal. At the time of re-application, the applicant must show positive evidence that he or she will achieve academic success if accepted into a program. Such evidence might include course completion with satisfactory grades, a positive employment experience, etc.

Academic Amnesty – Students who have received failing grades in the past may appeal in writing to the Academic Dean for academic amnesty. Amnesty is the forfeiture of prior coursework below a 2.0 level. This request may be granted if there is a high probability of academic success. If amnesty is granted for a course, the course and its grade will remain on the student's transcript. The grade for the course however, will not be calculated in the student's GPA. Amnesty may only be granted to students who are currently enrolled or have completed the most recent semester with a semester GPA of 2.0 or higher. Academic Amnesty may only be granted once during a student's academic tenure.

Advancement in the Major Program of Study

A minimum grade of 2.0 (C) / 2.33 (C+) is required of all courses designated as major courses within both

nursing and community paramedicine programs of study. These courses are identified in the course catalog. Students failing to achieve this standard will be unable to advance to the next higher-level class (if any) for which the previous class grade is a pre-requisite. The Registrar will notify a student in writing that they have failed to meet the academic standard required for any major course. A student will be given additional opportunities to retake the major course(s), providing there is space available and they are otherwise maintaining satisfactory academic progress.

Students majoring in nursing and trade and technical programs may be allowed only one opportunity to retake a major subject. A student may request a waiver of the pre-requisite from the higher-level class instructor or the affected department chair, the department chair of the student's major and the academic dean. In the event a student is permitted to advance to the next level he or she must repeat the course in which a grade of less than C (<2.0) was received in order to graduate.

Challenge Exam Policy

Selected NMCC courses may be challenged; however, challenge exams may not be available for all courses. When an appropriate standardized national exam exists (i.e. CLEP, DSST, PEP, Advanced Placement, etc.) this exam will be required. If no such national exam exists, the required exam shall be comparable to the comprehensive final examination taken by all students in the course.

Only one challenge exam per course will be approved by the department chair and academic dean. The following criteria apply to challenge examinations.

1. Only students who have been accepted in a NMCC program will be allowed to participate in the challenge exam process.
2. The student requesting a challenge exam will show written evidence of prior knowledge or proficiency in the subject area to be challenged. The student must contact the department chair as to the availability of the exam and the procedure.
3. Students intending to challenge courses must complete the request for prior learning assessment form (available on the NMCC portal) and have approval from the appropriate faculty member and Department Chair prior to taking the exam.
4. The student will be charged \$100 and the fee must be paid in advance.
5. The student must take the challenge exam prior to the semester in which the course is offered.
6. In order to receive credit, the student must score 73 (C) or above on the challenge exam. Students may not retake a challenge exam.

NOTE: Many colleges will not accept a challenged course for transfer.

Directed Study

A directed study is the offering of a catalog course on an individual basis by an appropriate faculty member to a qualifying student. Directed studies are available to students pursuing an associate degree only on a limited basis. A student who has completed a minimum of 30 credit hours with a cumulative average of 2.5 or above may be eligible for a maximum of 9 credit hours from an approved directed study(ies). A directed study may be approved for a program completion candidate when it is evident that the course will not be offered as a part of the regular semester curriculum, resulting in a postponement of completion of program which would ordinarily be completed in that term.

A non-refundable fee of \$100, in addition to tuition and any other regular fees, will be charged to the student for each course taken as a directed study.

For more information, contact your academic advisor, your program department chair, the academic dean or the Student Affairs Office. The directed study application is available on the Portal under the students tab.

Independent Study

A student with a cumulative GPA of 2.5 or higher may be eligible for a maximum of three credit hours in approved independent study. The student will conduct in-depth research on a topic(s) in his or her major occupational program and have the opportunity to develop abilities as an independent learner. An independent study project may carry 1, 2 or 3 credit hour values and will be completed during the semester or session of enrollment. Please see the college Registrar for information on the procedure to be followed.

A non-refundable fee of \$100, in addition to tuition and any other regular fees, will be charged to the student for each course taken as an independent study.

For more information, contact your academic advisor, your program department chair, the academic dean or the Student Affairs Office.

Second NMCC Credential

When a student enters NMCC, they choose a program with the expectation of receiving a degree or certificate in that area. As a student progresses through their program, the instructional staff may encourage the student to broaden their background by taking electives in another program. These opportunities allow the student to broaden their area of expertise without compromising or changing career goals, or their primary purpose for attending NMCC.

The following apply:

1. If a student wants a second credential, then they must complete at least 15 credits beyond the requirements of the first program as well as complete all requirements for the second credential.
2. Students may be given permission to complete a second credential only if they are demonstrating satisfactory academic progress and if space is available. Opportunities for second credentials may be limited due to program demand.
3. Students will not be considered for a second degree until they have completed a minimum of 30 graded credit hours and are in good academic standing.

Students pursuing more than one major must have written approval from the Dean of Students as well as a reference from their current academic advisor.

Academic Honors

Dean's List – The Dean's List honors individual students who demonstrate outstanding scholarly achievement. Students achieving a 3.2 or above grade point average as a result of a semester's work will be recognized by inclusion on the Dean's List.

To be selected, students must be enrolled full-time, matriculated in a program of study and be maintaining satisfactory academic progress. Full-time is defined as carrying 12 or more graded credit hours in a given semester, (Not included are pass/fail, transfer, audit, qualifying or work experience course work). A grade of incomplete for any course(s) in a semester will disqualify a student from inclusion on the Dean's List.

Part-time matriculated students who complete at least 6 credit hours during an academic year, achieve a minimum GPA of 3.2 and maintain satisfactory academic progress will be included on the Dean's List for Part-Time Students.

Phi Theta Kappa – Students achieving a 3.5 or greater cumulative grade point average while matriculated in an associate degree level program of study at NMCC may be invited to join Phi Theta Kappa, an international honor society for two-year college students. To maintain membership, the student member's cumulative grade point average may not fall below 3.25. Phi Theta Kappa emphasizes academic excellence, leadership and community service.

Mid-Term Warnings

In an effort to help students determine their academic success in a particular course, instructors issue a mid-term warning to students doing marginal or unsatisfactory work. Students may view their mid-term grades under the student tab on the portal (my.nmcc.edu) Students who have “U” - Unsatisfactory or “M” - Marginal grades are encouraged to contact their instructors immediately after receiving a mid-term warning so they can be advised on possible strategies for course success. During the meeting, referrals may be made to other campus resources, including the Academic Success Center, Health Center, counselors and student advisors.

Student Records

Permanent Transcript – Each student’s record is maintained in student affairs as a chronological list of course work taken and grades received. A student may examine it at any time upon presenting proper identification to the registrar.

Academic Record Changes – Considerable care is taken to ensure that all course registration and grade information entered on a student’s permanent record is accurate. The record is confirmed as being accurate if the student does not report a discrepancy to the Registrar’s Office within one semester of the completion of the course.

Transcript – Students requesting that a transcript be sent to a business or another college must sign a transcript release form. These forms are available in the Student Affairs Office as well as on the college web site (www.nmcc.edu). Students requesting a transcript must do so in writing. Expedited transcript requests (processed within one working day of the request) will cost \$25 per request. Facsimile transmissions will cost \$10, and overnight delivery will cost \$75, in addition to the expedited transcript fee. Students may also order electronic transcripts through www.Parchment.com for a fee of \$6. Unofficial transcripts are available via the campus portal (my.nmcc.edu).

Confidentiality of Student Records – NMCC believes that it is of paramount importance and in the best interest of all its members that confidentiality about personal information is maintained. NMCC is committed to safeguarding confidential information concerning its students from unauthorized disclosure.

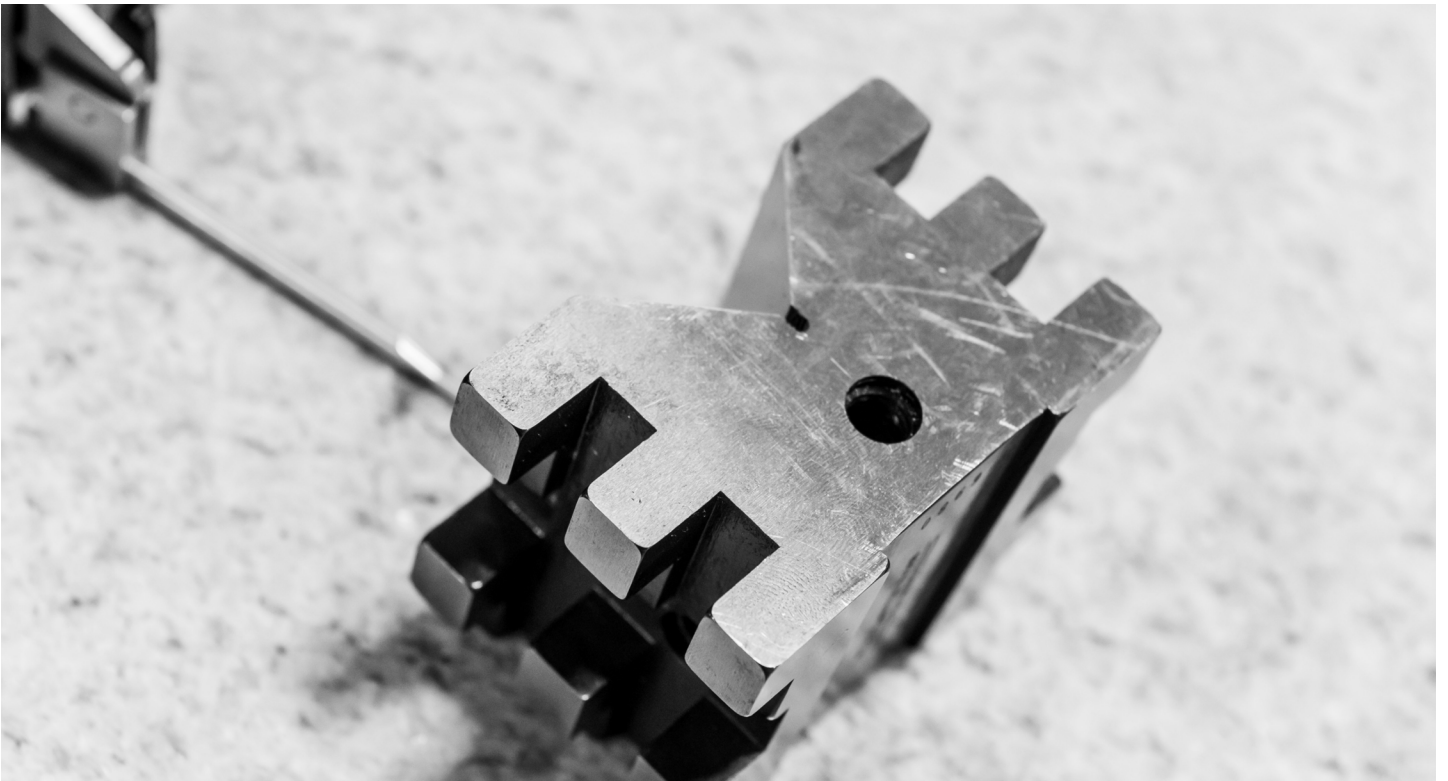
The Family Educational Rights and Privacy Act of 1974, as amended, provides the following rights for students attending NMCC:

1. The right of a student, with limitations, to inspect and review their educational records.
The right, with exceptions, to prevent disclosure to third parties of information from their educational records.
2. The right to withhold public disclosure of any or all items of so-called “Directory Information” by written notification to the Dean of Students within two weeks after publication of this notice.
The term “Directory Information” includes a student’s name, confirmation of enrollment, degree earned (if applicable), and major course of study.
3. The right to file a complaint with the U.S. Department of Education concerning the alleged failure of NMCC to comply with requirements of the Act.

Transfer

NMCC has several program specific transfer agreements with senior colleges and universities. Students interested in transferring to an institution to pursue a baccalaureate degree should discuss their goals with their academic advisor to assure appropriate planning of their academic coursework at NMCC and to maximize the amount of transfer credit.

For the transfer of courses not covered by a current transfer agreement, the college or university to which the student is transferring has the final decision on granting of transfer credit.



Academic Programs

ARTS & SCIENCES DEPARTMENT

The Arts and Sciences Department offers associate degrees in Liberal Studies and Early Childhood Education. The Liberal Studies Associate in Arts degree is a transfer degree program that replicates the first two years of a four-year program. The Associate in Applied Science degree in Early Childhood Education allows students to enter either the workforce or transfer. In addition, the department provides courses that support the general education core for degree programs in other departments. The general education cores instills in students the knowledge, skills, and values that define an educated person.

Career Studies

The associate in applied science degree in career studies is designed to provide a highly individualized and flexible program of study for students whose educational and/or occupational goals cannot be met by the other programs of the college. Recognizing that many students come to the college with significant work and/or learning experiences, this program provides for recognition of that experience, by the awarding of academic credit (after a thorough portfolio review process) in an occupational track.

Early Childhood Education

NMCC's early childhood education program offers both a two-year associate degree and a one-year certificate level option. The associate degree program is designed to educate childcare professionals in the skills and knowledge necessary for advanced positions in organizations and agencies that serve children. It provides courses and field experience in childcare, as well as a well-rounded supporting education. This degree also provides transfer opportunities to four-year institutions.

The certificate program provides the training needed for entry-level positions and meets the more immediate need for those who do not choose the additional courses required for the degree. The core courses of this program align with the educational requirements for the State of Maine Child Development Associate (CDA) credential.

Graduates will find employment opportunities in child care centers, summer and day camps, pre-school programs, public schools, recreational centers, one-on-one aide positions, and other agencies that serve children. Both, the two-year associate degree and the one-year certificate, provide the pathway for obtaining a State of Maine license as an owner/operator of a private child care facility.

Liberal Studies

An associate in arts degree in Liberal Studies is a flexible degree program designed for students whose educational goal is to transfer to another college or university. The curriculum provides a strong foundation in the liberal arts (math, science, humanities, and social sciences) that prepares students for advanced academic study at a baccalaureate-granting institution. As part of an agreement between the Maine Community College System and the University of Maine System, Liberal Studies graduates can complete up to 35 hours of the general education requirements of any campus in the University of Maine System as part of the Associate in Arts program. Those who are unsure of their future educational plans can enroll in Liberal Studies and work with experienced faculty to develop an educational plan that suits the student's needs. With small class size and experienced faculty who are committed to their craft of teaching, NMCC's Liberal Studies program is a great place to start.

To ensure maximum transferability, the College has entered into articulation agreements with regional colleges and universities such as the University of Maine at Presque Isle and the University of Maine at Fort Kent. The Arts and Science Department is also included in articulation agreements

made by NMCC nursing, business, and technical programs at other institutions of higher learning.

Finally, Liberal Studies is a starting point for those who are undecided about their educational and career goals. The flexibility of the associate in arts curriculum allows students to sample a wide variety of courses in both the liberal arts and career and technical programs.

BUSINESS TECHNOLOGY DEPARTMENT

The Business Technology Department promotes occupational and technical competence, individual growth and social responsibility in students preparing for careers in accounting, business administration, network administration, cybersecurity and various certificate programs. In addition, the students' preparation allows for upward academic mobility when they wish to transfer credit to baccalaureate-granting colleges and universities.

Classroom learning experiences support the use of laptop computers and personal devices to create an active learning environment where students put into practice the principles, theories and technology that are fundamental to the understanding of their specialized field of study.

In addition, general education courses are an important part of the students' program of study. The faculty are committed to preparing students to function in the current job market and for transfer to baccalaureate-granting colleges and universities. Faculty maintain expertise in their specialized field through a variety of activities including involvement in professional organizations, attendance at workshops and seminars, and working in their respective field.

The department is nationally accredited by the Accreditation Council for Business Schools and Programs (ACBSP) for the offering of its accounting and business administration programs that culminate in the associate in applied science degree.

Accounting

Accounting combines the study and practice of accounting with the design, implementation and monitoring of information systems. Such systems use modern information resources, together with accounting controls and methods, to provide users the financial information necessary to manage their organizations. The purpose of accounting is to provide timely and accurate financial and statistical reports for internal management decision making and for external parties such as creditors, investors, and regulatory and taxation authorities.

NMCC's two-year accounting program provides knowledge and skills to maneuver newly emerging systems that require a combination of technical and financial knowledge. Students will learn the latest in electronic commerce, direct business-to-business communication, and paperless work processes in the College's wireless multimedia smart classrooms.

Graduates of this program will be prepared for entry level positions at accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, churches, and government agencies.

Besides providing training for employment, the program prepares students to continue their education at a four-year college or university. Transfer agreements with several colleges and universities ensure that graduates can transfer, as an advanced student, into a four-year program.

Business Administration

The Business Administration program is broad and diversified in its course offerings. Courses are designed to impart knowledge and to develop skills and abilities that will prove practical, useful and

marketable. Through its course offerings, the program continually strives to maintain relevance and a high-level of quality. Instructors, with their strong business and industry backgrounds, blend theory and practice in a unique and meaningful way.

Graduates will be qualified for employment as accounting clerks, loan officers, entry-level managers, state and federal government employees, and related positions. Besides providing training for employment, the program prepares students to continue their education at a four-year college or university. Transfer agreements with several colleges and universities ensure that graduates can transfer, as an advanced student, into a four-year program.

Entrepreneurship

The Entrepreneurship certificate program is designed to prepare prospective entrepreneurs to launch new ventures by educating them in the fundamentals of starting and operating their own business. For entrepreneurs who already have established a business, this program will help them strengthen their business and management skills.

Entrepreneurship is an employment strategy that leads to economic self-sufficiency. Self-employment provides you with the potential to create and manage businesses, in which you function as the employer or boss, rather than being an employee. Graduates who want to expand their business management skills may choose to complete the Business Administration associate degree program at NMCC. Thirty of the 33 credits earned in the Entrepreneurship certificate will apply toward an AAS in Business Administration.

Network Administration & Cybersecurity

Network Administration & Cybersecurity is a two-year program which prepares students to enter the workforce as an IT administrator, technician or to continue on to a four-year program. Students learn to build and optimize computers and servers, set-up and administer a computer network, and maintain operating systems. The first year provides training in Windows 10, computer repair, Introduction to Windows Server 2016, Introduction to Linux, and networking hardware. Seniors receive advanced training in configuring servers, network administration, micro electronics, computer forensics, and cybersecurity. All courses have considerable hands-on labs to reinforce the theory.

Office Assistant

The Office Assistant certificate program is designed to provide basic, entry-level clerical skills. The program teaches, improves and reinforces math, accounting, office procedures, oral and written communication, filing, and word processing skills. Graduates are prepared for entry-level office positions. Students may also choose to continue their education.

EMERGENCY MEDICAL SERVICES DEPARTMENT

The Emergency Medical Services (EMS) Department prepares the pre-hospital provider to enter into professional practice and work in a variety of healthcare settings. The EMS department utilizes both an innovative educational delivery approach and state of the art equipment including a full simulation center and ambulance to ensure graduates are well prepared for the rigors of the healthcare environment they will face. Students will apply didactic knowledge gained from their studies as well as psychomotor skills to complete various clinical rotations throughout the program.

Community Paramedicine

The Community Paramedicine program is designed to educate practicing paramedics, who are primarily employed in the pre-hospital emergency environment, to become competent community paramedics. Community paramedics work collaboratively with public health, home care and primary care professionals in non-emergency settings, providing an invaluable service to an unserved population.

Community paramedics help patients meet critical health needs by establishing health systems that promote health and wellness, while serving as advocates, educators, facilitators, liaisons, and resource coordinators. The program is designed to allow paramedics to perform needs assessments and assist in the development of community paramedicine initiatives that meet very specific and individualized community needs. Paramedics having earned an academic credential (associate degree or higher, in any field) may enroll directly into the advanced certificate level of the program; those candidates who have not yet earned an associate degree will be considered for the associate degree in science level of the program.

Community Paramedicine is a new and exciting career choice for experienced paramedics. In addition to serving communities in the traditional roles, community paramedics are employed by acute care hospitals, long term care facilities, assisted living organizations, public health entities, and municipalities.

Emergency Medical Services

The Emergency Medical Services program is designed to prepare individuals to become national registered paramedics. The curriculum combines intense classroom and lab instruction with extensive clinical experiences to assure that graduates are competent, confident practitioners. The program follows national education standards and graduates are eligible to take the National Registry Paramedic License examinations. In addition to the core content, students earn certifications in Advanced Cardiac Life Support (ACLS), Pre-hospital Trauma Life Support (PHTLS), Pediatric Advanced Life Support (PALS), Paramedic Interfacility Transport (PIFT), Advanced Medical Life Support (AMLS) and Emergency Pediatric Care (EPC). The program is authorized as a training center by the Board of Maine EMS. The Emergency Medical Services Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Education Programs for the Emergency Medical Services.

The multiple entry/multiple exit program permits students to exit after completion of specific course requirements and be eligible to take the national certification exams for EMT, Advanced EMT and Paramedic. Currently licensed providers may be accepted into the higher levels of the program.

NURSING AND ALLIED HEALTH DEPARTMENT

The Nursing and Allied Health Department provides programs which prepare graduates to be employed in a variety of health care settings as competent health care providers.

The programs are supported by general education studies and a number of required courses supplement the occupational areas of study. Students are expected to combine theory and didactic classroom content with practical application in both lab and clinical settings. Occupational areas offer current instruction by faculty members who maintain theoretical and clinical expertise in specialized fields of knowledge. Faculty seek on-going professional development in order to maintain their individual competencies in the rapid and ever-changing healthcare environment.

To participate in any of these healthcare related programs, students must attest to criminal history and pending criminal data. Convictions and pending charges of concern will be reviewed by clinical

agencies to determine if students can work at these sites. Students who are not accepted at a clinical agency will not be able to meet program requirements, resulting in dismissal from the program. Students found to be untruthful or misleading on the application form and/or program attestation statements may be dismissed from the program.

Graduates are able to secure employment in a variety of clinical settings and/or transfer to baccalaureate levels of education in their areas of major.

Medical Assisting

NMCC offers a one-year certificate in Medical Assisting that prepares students to enter the rapidly expanding field of medical assisting. Medical assistants are multi-skilled allied health professionals that perform both administrative and clinical procedures in ambulatory medical settings. The medical assisting certificate provides basic skills to students. Some of the skills taught in the certificate program include obtaining vital signs, recording a medical history, administering oral and parenteral medications, preparing the patient for examination and assisting the health care provider with the physical examination. Administrative skills include scheduling patient appointments, performing bookkeeping procedures, as well as entry-level medical and diagnostic coding, and completion of insurance claim forms. Students also learn to perform diagnostic tests such as 12-lead EKGs, CLIA-waived laboratory tests, and collection of blood samples.

The College's two-year associate degree Medical Assisting program provides additional clinical and administrative training. In the clinical component of the program, students will have the opportunity to understand the concept of professionalism and principles of therapeutic communication, teach patients about health and wellness, and gain a more extensive understanding of anatomy and physiology, and clinical applications of pathophysiology and pharmacology. In the administrative component of the program, students will learn about medical law and ethics and how to maintain electronic health records.

Graduates of the medical assisting program will be competent entry-level medical assistants who can secure employment in medical offices or ambulatory clinics. In the state of Maine, medical assistants work under the direction of health care providers. Upon graduation, students may elect to sit for the Certified Medical Assistant (CMA) and/or the Registered Medical Assistant (RMA) national certification exams.

The Medical Assisting Associate degree program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board.

Nursing

The associate in science degree Nursing program is designed to offer individuals the opportunity to enter the nursing profession as a registered nurse.

The nursing curriculum focuses upon basic human needs of individuals throughout the lifespan. Students develop the knowledge and skills necessary to provide nursing care to individuals with well-defined health problems. Legal, ethical and role responsibilities of the nurse are addressed within each level.

Guided learning opportunities in local healthcare facilities, the campus lab, and the state-of-the-art simulation center, provide students with valuable hands-on experiences that complement the classroom curriculum. Upon completion of the associate degree nursing program, graduates may choose to continue their education toward a bachelor of science degree in nursing. NMCC's nursing program has transfer agreements in place with four-year institutions for a seamless transition from RN to BSN.

Candidates who are graduates of an approved practical nursing program are provided an opportunity for advanced standing in the nursing program. Graduates will be eligible to take the NCLEX-RN examination, administered by the National Council of State Boards of Nursing (NCSBN), to qualify as a registered nurse. Graduates will find employment opportunities as an integral team member in a variety of healthcare settings.

The program holds national accreditation by the Accreditation Commission for Education in Nursing (3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326; www.acenursing.org) and is fully approved by the Maine State Board of Nursing (161 Capital St., 158 State House Station, Augusta, ME 04333-0158; www.state.me.us/boardofnursing).

Practical Nursing

The Practical Nursing program is designed to offer individuals the opportunity to enter the nursing profession as a practical nurse.

The nursing curriculum focuses upon basic human needs of individuals throughout the lifespan. Students develop the knowledge and skills necessary to provide nursing care to individuals with well-defined health problems. Legal, ethical and role responsibilities of the nurse are addressed within each level. Guided learning opportunities in local healthcare facilities, the campus lab, and state-of-the-art simulation center, provide students with valuable hands-on experiences that complement the classroom curriculum.

The program is approved by the Maine State Board of Nursing (161 Capital St., 158 State House Station, Augusta, ME 04333-0158; www.state.me.us/board).

Graduates will be eligible to take the NCLEX-PN examination, administered by the National Council of State Boards of Nursing (NCSBN), to qualify as a practical nurse. Graduates will find employment opportunities as an integral team member in a variety of healthcare settings. Practical nurses are integral members of the healthcare team and will function under direct or indirect supervision of an experienced registered nurse.

Effective July 7, 2022, this nursing program is a candidate for initial accreditation by the Accreditation Commission for Education in Nursing. This candidacy status expires on July 7, 2024. Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326 (404) 975-5000 <http://www.acenursing.com/candidates/candidacy.as>

TRADE AND TECHNICAL OCCUPATIONS DEPARTMENT

NMCC's Trade and Technical Occupations Department offers a wide range of programs that provide classroom instruction and hands-on training in three major cluster areas. The transportation trades include training of technicians in automotive collision repair, automotive technology and diesel hydraulics technology. The construction trades include building construction technology, plumbing and heating, electrical construction and maintenance, and structural welding. The technical trades include computer numerical control, water treatment technology and wind power technology.

Each program requires a broad-based education centered on a core curriculum, including technical specialty and general education courses. Most programs offer both an associate degree and certificate level option. The certificate offerings focus primarily on technical course work. The comprehensive nature of the associate degree curriculum provides graduates with added flexibility in their careers, enabling them to adapt readily to new tasks and work environments.

Automotive Collision Repair

NMCC's Automotive Collision Repair program offers a broad range of training from collision repair to custom painting, emphasizing the skill standards required for a technician to become Automotive Service Excellence (ASE) certified. The latest technology is used with computer matching capabilities in paints and in the measuring of the automobile after sustaining collision damage along with creating a written estimate.

Instruction is given in plastic and composite repair in preparation for the application of paint. The second year of the program reinforces the skills learned in the first year; however, more emphasis is placed on major collision appraisal and repair and the auto body refinishing process. Processes includes acrylic urethanes, polyurethanes and basecoat, clear coat in solvent based and waterborne paint systems, and tri-coat paint systems. Emphasis is also placed on color matching, mixing and tinting colors with hands-on experience. To insure accountability for time and materials, second year students also utilize work order system.

Graduates of the program will find job opportunities with auto collision repair paint shops, new and used car dealers, auto glass shops, and truck body builders. With experience, advanced positions may be available in supervision, insurance adjusting, sales and service, auto product field representation with collision frame shops and in self-employment.

The Automotive Collision Repair program is ASE accredited at the master level.

Automotive Technology

Automotive Technology is a program designed to provide broad fundamental training in all aspects of automotive service and repair, employing up-to-date methods and materials. The program emphasizes the ASE Education Foundation skills standards required for a technician to become Automotive Service Excellence (ASE) certified. In the first semester, students concentrate on the under-car chassis, including wheels/tires, tire pressure monitoring systems, wheel balancing techniques, brakes, ABS/traction control systems, steering suspension systems, and wheel alignment.

During the spring semester, first year students concentrate on major engine repair, including diagnoses, disassembly, inspection, and reassembly. Automotive electricity, including batteries, starting and charging systems, restraint systems, lighting, vehicle wiring are integral to the program. There is also a course in motor vehicle inspection and students may take the Maine Class A, E, D, and T inspection license exams. In the second year, students cover the areas of engine management diagnostics and repair, including: computers and control systems, fuel delivery/air induction, ignition systems and emission control. In the final semester, the course covers areas of automatic/manual transmissions and final drive assemblies. Incorporated into the program are technical courses that enhance learning on the maintenance of current automotive standards.

These include basic automotive electricity, automotive electronics, automotive heating and air conditioning, advanced electronics, hybrid and electric vehicles, and light duty diesel systems. The program meets the quality training of automotive certified technicians as set by ASE. Students will be eligible for ASE professional certifications upon completion of the program. Graduates of the program will be qualified as entry level technicians, finding employment with automobile dealerships, independent repair facilities, after-market specialty shops and other related businesses.

The Automotive Technology program is ASE accredited at the master level.

Building Construction Technology

The Building Construction Technology one-year certificate program provides up-to-date training in the tools of the construction trade including the proper methods of construction, the appropriate materials to use and the related knowledge necessary to enter the trade.

Students learn and practice the safe use of power and hand tools, the principles of building construction, including floor framing, wall framing, roof framing, wall partition framing, exterior finish, roofing, attic venting and insulating techniques.

Graduates will be qualified for entry-level positions with building contractors, building suppliers, governmental agencies, home specialty companies, manufacturing firms or other organizations. Building Construction Technology students gain knowledge on the total construction process in their education, which also provides good career advancement opportunities.

Computer Numerical Control

The Computer Numerical Control (CNC) certificate program enables students to develop skills in programming, set-up, and operation of CNC machine tools to produce precision parts and develop the required skills for entry-level employment. Students will develop additional skills in process planning, print reading, CAD/CAM, measurement and inspection, and custom work-holding design, leading to NIMS – National Institute of Metalworking Skills and/or other credentials.

The Computer Numerical Control program at NMCC is located in the College's HAAS Technical Education Center. The college's collaborative relationship with HAAS Automation, Inc. affords students access to state-of-the-art machine tools to support training in both entry-level and advanced machining processes.

Job opportunities for graduates include CNC mill operators, CNC lathe operator, and quality control inspectors.

The CNC certificate program is accredited by the National Institute of Metalworking Skills (NIMS).

Diesel Hydraulics Technology

The Diesel Hydraulics Technology program that emphasizes the skill standards required for a technician to become entry level technicians in diesel diagnostic and repairs for trucks and heavy equipment. Fundamental training in all aspects of medium/heavy truck technician training is employed through lecture and hands-on training.

In the first semester, students concentrate on preventive maintenance inspections and repair, basic principles of diesel engine operation with emphasis on engine tune-up and troubleshooting techniques (i.e., engine timing, and fuel systems operational components). The next semester follows with an emphasis on heavy equipment electrical/electronic troubleshooting and repair, air brake systems, and fundamentals of suspension and steering component service and diagnostics.

In the second year, students concentrate on the principles of hydraulics, hydraulic troubleshooting and diagnosis, followed by diesel engine rebuilding. The last semester's concentration is truck drive train systems, including transmission and differential rebuilding or replacement, followed by the theory and operation and repair of automatic and manual drive trains, axles, and bogie systems and diagnosis.

The Diesel Hydraulics program meets the quality training of diesel hydraulic technicians as set by ASE and are master level accredited. Students will be eligible for ASE student certifications upon completion of the program.

Graduates can find employment with construction companies, forestry companies, agricultural machinery/heavy equipment dealers, and truck dealerships. Capable graduates may advance into management positions such as team leader, shift foreman, shop supervisor, service manager, parts manager, or sales associate.

The Diesel Hydraulic Technology program is ASE accredited at the Master level.

Electrical Construction and Maintenance

The Electrical Construction and Maintenance program provides a broad fundamental training in the principles used to install electrical equipment and the mathematics necessary to plan electrical systems. National electric code and theory are taught throughout the program.

The first year provides theory and practice in electrical and electronic basics. Studies include the use of diagnostic test equipment and troubleshooting techniques while performing “hands-on” laboratory exercises.

The second year begins with an in-depth study of residential and commercial wiring systems and lighting design. Hands-on exercises include residential wiring, conduit bending and installation, and lighting and control system installation.

Following a thorough study of rotating machinery and power systems analysis, industrial wiring and motor controls are studied. Hands-on exercises include the planning, wiring and testing of motor control circuitry, as well as, programmable logic controllers (PLCs).

Graduates of the program will find employment opportunities as beginning electricians with electrical contractors, service shops, power companies, electrical industry equipment suppliers and industrial maintenance operations. After necessary experience and licenses have been obtained, positions may be available as managers, inspectors, supervisors, field representatives or as operators of individual businesses. Presently, two of the four years required for a Journeyman Electrician’s License are awarded to graduates upon completing this program at NMCC.

Plumbing and Heating

Students in the Plumbing and Heating program may choose to pursue an associate degree or a certificate in plumbing, in heating, or in both. Classroom and lab projects provide students with the skills necessary for today’s fast pace and ever evolving world of plumbing and heating. Students can enroll in the Plumbing and Heating associate’s degree program, the one-year Plumbing certificate, or the one-year Heating certificate. Admission to the Heating certificate only requires instructor’s permission.

The first year is spent in the plumbing classroom and lab learning to work with many types of piping systems, including copper, steel and plastics. The student will also learn to properly install and service domestic water pumps, water treatment equipment, plumbing fixtures, drainage and vent lines, and potable water lines. The student will work directly with the sizing of domestic water, drainage and venting systems. The Maine State Plumbing Code will be discussed in detail. The student will be eligible for the Maine Plumbers’ Journeyman Exam upon successful completion of the first year. Individuals who pass the state exam may be issued a Journeyman-In-Training License.

The second year consists of class time in heating and refrigeration, along with participating in the lab, learning to work with many different heating and refrigeration systems and components. The student will learn the major concepts of heat flow, warm air and hydronic heating systems, piping systems and layouts, electrical component wiring, and Maine laws pertaining to oil heating appliances and refrigerant systems. After completion of the heating courses, the student will be eligible to sit for the Maine Journeyman’s Exam for #1 and #2 oils up to 15 G.P.M. In addition, students will receive training in propane and natural gas and heat pump installation. Students will have the opportunity to take national certification exams in propane and natural gas, allowing students the ability to sit for the professional license of “Propane and Natural Gas Technician” license and EPA 608 Certificate for Refrigeration Handling.

Graduates will be qualified for many employment opportunities in the plumbing, heating and refrigeration field, including service technician, installer, and equipment sales, and eventually self-employment.

Trade and Technical Occupations

This program recognizes proficiency at the associate degree level for various trades and technical occupations in which an individual has completed a formal registered* apprenticeship program (i.e. journeyman status). The program is open to individuals who have completed a registered apprenticeship program and apprentices who wish to complete the trade and technical occupations program simultaneously with dual enrollment in the apprenticeship program.

Participation is available to apprentices in a registered or college approved program that is at least three years in duration. Students may be enrolled in the program after they have earned 27 credits in their technical (apprenticeship) specialty area. The student is responsible for providing the necessary documentation to verify his or her successful completion of the technical specialty portion of the apprenticeship program, certification documents, a schedule of training required by the employer and other supporting credentials. The degree will not be awarded until the student has completed the requirements of the apprenticeship program.

Registered by Maine State Apprenticeship Council; Bureau of Apprenticeship Training, U.S. Department of Labor; or formal programs approved by the College.

Structural Welding

In the Structural Welding certificate program students will be presented information on the materials being used, hand and power tools for the job, safety in the workplace, and the correct procedures for the assigned tasks. Students will have the opportunity to develop skills in the shielded metal arc welding process, in preparation for the exam. The curriculum for this program is designed to prepare students for the American Welding Society structural welding qualification test numbers D1-SM-F4-P-A-L, a national certification.

Graduates of the program may find employment opportunities with industrial contractors, ship yards, machine shops, fabrication shops, and manufacturing facilities.

Water Treatment Technology

The Water Treatment Technology program prepares students for a career in the environmentally conscious field of municipal and industrial water and wastewater treatment. The program provides students a fundamental understanding of the scientific principles used to treat drinking water as well as sanitize wastewater before it is discharged back into the environment.

Students will learn industry theory and gain better understanding of the information across the spectrum, from the basics to an in-depth study of Water and Wastewater Treatment degree and certificates. Students may choose the Associate's Degree option that covers both water and wastewater treatment, or a certificate option in either.

Graduates will be eligible for the Maine DHHS Class I and II Water Treatment Plant Operator, Class I and II Waster Distribution Systems Operator, Maine DEP Class I and II Wastewater Treatment Plant Operator and NEWA Grade 1 and 2 Collection Systems exams.

Students may find career opportunities with municipal and industrial water and wastewater treatment facilities, state agencies, testing laboratories, and related equipment suppliers.

Wind Power Technology

The Wind Power Technology certificate program prepares students to enter into a rapidly emerging alternative energy industry as technicians. The program offers training in the fundamental skills required to work safely and effectively with utility sized wind power systems.

The first semester of the program offers an introduction to the power industry, electrical and electronics basics, related mathematics concepts, industrial safety practices, fluid applications, and mechanical drive systems. The second semester provides fundamentals of industrial control system applications including automation concepts, related electronics, communication networks, software applications, and power production and distribution. Each semester's curriculum provides a focus on developing a working knowledge of industry standards and skills required to complete operation, maintenance and troubleshooting tasks.

Graduates of the certificate program will find career opportunities with wind farm operators, turbine manufacturers, and contractors providing construction, maintenance and turbine operational support. Opportunities may include local employers, as well as global energy industry.



Curriculum

ACCOUNTING

Associate in Applied Science Degree Program

First Semester				CR
ACC	114	Principles of Accounting I		3
BUS	117	Business Law		3
CIS	105	Introduction to PC Operating Systems		1
CIS	113	Introduction to Microcomputer Applications		3
ENG	111	English Composition		3
MAT	115	Business Mathematics (or MAT 116 Quantitative Reasoning)		3
				<u>16</u>
Second Semester				
> ACC	120	Principles of Accounting II		3
CIS	108	Spreadsheet Applications		3
COM	212	Business Communications I		3
ECO	213	Macroeconomics		3
MAT	125	College Algebra		3
				<u>15</u>
Third Semester				
> ACC	210	Intermediate Accounting I		3
> ACC	214	Federal Taxation I		3
> ACC	223	Accounting for Non-profit Organizations		3
> ACC	234	Accounting Information Systems I		3
CIS	129	Database Applications		3
COM	111	Speech		3
				<u>18</u>
Fourth Semester				
> ACC	220	Intermediate Accounting II		3
> ACC	225	Federal Taxation II		3
BUS	106	Effective Customer Service		3
		Business Elective		3
		Humanities Elective		3
				<u>15</u>
Total Required				64

Learning Outcomes

- Comply with Generally Accepted Accounting Principles.
- Perform the steps of the accounting cycle.
- Journalize and post adjusting entries for a business entity.
- Prepare financial statements.
- Perform financial statement analysis.
- Utilize accounting information for decision making.
- Prepare a federal income tax return.
- Proficiently use technology.

NMCC's accounting program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP). The accreditation represents the achievement of meeting the international standards established for associate degree-granting business programs.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: CR= Credit Hours

AUTOMOTIVE COLLISION REPAIR

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
> ACR	111	Nonstructural Repairs	3	9	6
COL	103	College Success	1	0	1
ENG	111	English Composition	3	0	3
SAE	121	Industrial Safety	3	0	3
WEI	113	Thin Metals Welding	2	2	3
			<hr/>	<hr/>	<hr/>
			12	11	16

Second Semester					
> ACR	121	Structural Analysis / Plastics	3	9	6
> AUT	115	Automotive Electricity	2	2	3
MAT	121	Technical Mathematics	4	0	4
WEI	135	I-CAR Welding	1.5	4.5	3
		Social Science Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			13.5	15.5	19

Third Semester					
> ACR	209	Auto Collision Blueprint & Estimating	3	0	3
> ACR	211	Painting & Refinishing	3	9	6
> AUT	125	Automotive Electronics	2	2	3
PHY	150	Physics	3	2	4
		Humanities Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			14	13	19

Fourth Semester					
ACR	214	Airbrushing Techniques	2	2	3
> ACR	223	Structural Repairs	3	9	6
AUT	216	Motor Vehicle Inspection	2	0	2
> AUT	229	Automotive Heating & Air Conditioning	2	2	3
COM	221	Technical Communications	3	0	3
			<hr/>	<hr/>	<hr/>
			12	13	17

Total Required **71**

> Major courses; a minimum grade of "C" or 2.0 in required



The Automotive Collision Repair program has achieved Master Level certification by the National Institute for Automotive Excellence (ASE) after a thorough evaluation.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L= laboratory

AUTOMOTIVE COLLISION REPAIR

(Continued from previous page)

AUTOMOTIVE COLLISION REPAIR Certificate Program

First Semester			C	L	CR
> ACR 111	Nonstructural Repairs		3	9	6
ENG 111	English Composition		3	0	3
SAE 121	Industrial Safety		3	0	3
WEI 113	Thin Metals Welding		2	2	3
			11	11	15

Second Semester					
> ACR 121	Structural Analysis / Plastics		3	9	6
> AUT 115	Automotive Electricity		2	2	3
MAT 121	Technical Mathematics		4	0	4
WEI 135	I-CAR Welding		1.5	4.5	3
			10.5	15.5	16

Total Required **31**

MAJOR COLLISION REPAIR & REFINISHING Certificate Program

Must have completed the Auto Collision Repair Certificate Program or have permission from the instructor to enroll.

First Semester			C	L	CR
> ACR 209	Auto Collision Blueprint & Estimating		3	0	3
> ACR 211	Painting & Refinishing		3	9	6
> AUT 125	Automotive Electronics		3	0	3
ENG 111	English Composition		3	0	3
			12	9	15

Second Semester					
> ACR 223	Structural Repairs		3	9	6
AUT 216	Motor Vehicle Inspection		2	0	2
> AUT 229	Automotive Heating & Air Conditioning		2	2	3
MAT 121	Technical Mathematics		4	0	4
			11	11	15

Total Required **30**

Learning Outcomes

- Demonstrate a safe working environment and safe use of tools and equipment in the Automotive Collision Repair Industry.
- Demonstrate how to properly repair a vehicle including estimating, repair planning, repairing, and refinishing the vehicle.
- Perform entry-level skills in metalwork, plastic repairs, refinishing and all aspects of Auto Collision Repair process.
- Understand proper technical terms, descriptions and how to communicate them with others.
- Understand the basic principles of automotive electronic components.
- Demonstrate basic skills in oxyacetylene, MIG, silicon bronze and aluminum welding.
- Be eligible for Maine State Motor Vehicle Inspection License, ASE Certifications in B2, B3, B4, B5, B6, Section 609 Certification of Federal Clean Air Act, I-Car Thin Metals Welding Certification.
- Be able to work efficiently on the repair orders, estimates and body repairs.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L= laboratory

AUTOMOTIVE TECHNOLOGY

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
> AUT 109	Introduction to Automotive Technology*		0.5	1.5	1
> AUT 114	Suspension & Steering*		1.5	4.5	3
> AUT 115	Automotive Electricity		2	2	3
> AUT 116	Brakes*		1.5	4.5	3
COL 103	College Success		1	0	1
ENG 111	English Composition		3	0	3
WEI 103	Welding for Automotive Technicians		2	2	3
			11.5	14.5	17

Second Semester					
> AUT 124	Engine Repair		3	9	6
> AUT 125	Automotive Electronics		2	2	3
AUT 216	Motor Vehicle Inspection		2	0	2
MAT 121	Technical Mathematics		4	0	4
	Humanities Elective		3	0	3
			14	11	18

Third Semester					
> AUT 214	Engine Performance		3	9	6
> AUT 229	Automotive Heating & Air Conditioning		2	2	3
> AUT 231	Innovative Automotive Technologies		2	2	3
> AUT 233	Light Vehicle Diesel Systems		2	2	3
PHY 150	Physics		3	2	4
			12	17	19

Fourth Semester					
> ACR 223	Manual Drive Train & Axles*		1.5	4.5	3
> AUT 225	Automatic Transmissions*		1.5	4.5	3
> AUT 228	Alternative Propulsion Systems		2	2	3
COM 221	Technical Communications		3	0	3
	Social Science Elective		3	0	3
			11	11	15

Total Required **69**



The Automotive Technology program has achieved Master Level certification by the National Institute for Automotive Excellence (ASE) after a thorough evaluation.

** Note: AUT courses within a semester are scheduled sequentially, not concurrently*

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L= laboratory

AUTOMOTIVE TECHNOLOGY

(Continued from previous page)

Certificate Program

First Semester			C	L	CR
> AUT	109	Introduction to Automotive Technology*	0.5	1.5	1
> AUT	114	Suspension & Steering*	1.5	4.5	3
> AUT	115	Automotive Electricity*	2	2	3
> AUT	116	Brakes	1.5	4.5	3
ENG	111	English Composition	3	0	3
WEI	103	Welding for Automotive Technicians	2	2	3
			10.5	14.5	16

Second Semester					
> AUT	124	Engine Repair	3	9	6
> AUT	125	Automotive Electronics	2	2	3
AUT	216	Motor Vehicle Inspection	2	0	2
MAT	121	Technical Mathematics	4	0	4
			11	11	15

Total Required **31**

Learning Outcomes

- Demonstrate work area safety and the correct and safe use of tools and equipment used in the automotive repair industry.
- Understand principles of operation, demonstrate ability to diagnose and repair suspension and steering systems, including two- and four-wheel alignments.
- Know the principles of operation, diagnoses and repair of base and anti-lock braking systems.
- Perform diagnostics and repair of automotive powertrains, including engines, automatic and manual transmission, transfer cases and differentials.
- Identify the principles of engine performance including fuel delivery and emission systems and demonstrate the ability to diagnose and repair these systems using proper scan tools.
- Understand the principles of automotive electrical and electronic systems and diagnoses and proper repair of these systems.
- Be eligible for ASE certification for A1 through A9 as well as G1, L3, Maine State Motor Vehicle Inspection License and Section 609 Certification of Federal Clean Air Act.
- Comprehend the principles of hybrid/electric vehicle technology and safety requirements, advanced automotive technologies as well as diagnoses and repair.

** Note: AUT courses within a semester are scheduled sequentially, not concurrently*

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L= laboratory

BUILDING CONSTRUCTION TECHNOLOGY

Certificate Program

First Semester			C	L	CR
> BCT	111	Framing Systems	3	9	6
DRR	117	Blueprint Reading for Construction Trades	2	2	3
ENG	111	English Composition	3	0	3
SAE	117	Occupational Safety	1	0	1
TEC	112	Building Science I	1.5	3	3
			10.5	14	16

Second Semester					
> BCT	121	Interior Materials & Methods	3	9	6
> BCT	125	Woodworking	1.5	4.5	3
MAT	121	Technical Mathematics	4	0	4
TEC	123	Building Science II	1.5	3	3
			10	16.5	16

Total Required **32**

Learning Outcomes

- Demonstrate the safe practice and use of construction tools and know the safety precautions required on the job site.
- Construct floor, wall, and roof framing systems.
- Demonstrate the ability to install windows, doors, and various trim materials.
- Understand heat loss, attic venting, and moisture control measures needed in energy efficient structures.
- Estimate construction costs using material lists prepared by the student.
- Apply good sanding, painting, staining, and clear-coating procedures on all trim and molding.
- Describe typical construction materials and methods as they relate to residential and light commercial buildings.
- Read and understand plans for residential and light commercial buildings.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L= laboratory

BUSINESS ADMINISTRATION

Associate in Applied Science Degree Program

First Semester				CR
ACC	114	Principles of Accounting I		3
> BUS	101	Introduction to Business		3
CIS	105	Introduction to PC Operating Systems		1
CIS	113	Introduction to Microcomputer Applications		3
ENG	111	English Composition		3
MAT	115	Business Mathematics (or MAT 116 Quantitative Reasoning)		3
				16
Second Semester				
ACC	120	Principles of Accounting II (or ACC 124 Managerial Accounting)		3
> BUS	109	Entrepreneurship		3
CIS	108	Spreadsheet Applications		3
COM	212	Business Communications I		3
MAT	125	College Algebra		3
				15
Third Semester				
ACC	214	Federal Taxation I (or CIS 129 Database Applications)		3
BUS	117	Business Law I		3
> BUS	217	E-Commerce		3
> BUS	229	Principles of Management		3
COM	111	Speech		3
ECO	213	Macroeconomics		3
				18
Fourth Semester				
BUS	106	Effective Customer Service		3
> BUS	214	Project Management		3
> BUS	239	Human Resource Management		3
> BUS	241	Principles of Marketing		3
		Humanities Elective		3
				15
Total Required				64

Learning Outcomes

- Demonstrate knowledge of the four managerial functions: planning, organizing, leading, and controlling.
- Demonstrate knowledge and skills in the field of human resource management.
- Demonstrate knowledge of marketing research and skills necessary to create a marketing plan.
- Demonstrate knowledge and skills in the field of entrepreneurship.
- Proficiently use technology.

NMCC's business administration program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP). The accreditation represents the achievement of meeting the international standards established for associate degree-granting business programs.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: CR= Credit Hours

CAREER STUDIES

(Continued on next page)

CONCENTRATION IN ALLIED HEALTH Associate in Applied Science Degree Program

First Semester			CR
ALH 115	Intro to Health Care Professions		3
BIO 201	Anatomy & Physiology I with Lab		4
COL 103	College Success		1
ENG 111	English Composition		3
	Elective		3
	(NUT 101, PSY 101, COM 111, or HIS 123)		
			14
Second Semester			
ALH 220	Medical Terminology		3
BIO 211	Anatomy & Physiology II with Lab		4
ENG 226	Introduction to Literature		3
MAT 116	Quantitative Reasoning		3
	Elective		3
	(ENG 227, SPA 101 or HIS 125)		
			16
Third Semester			
	Career / Technical Courses		12
	Elective		3
			15
Fourth Semester			
	Career / Technical Courses		12
	Elective		3
			15
Total Required			60

Key: CR= Credit Hours

CAREER STUDIES

(Continued from previous page)

Healthcare Studies Certificate Program

First Semester			CR
ALH 115	Introduction to Health Care Professions		3
BIO 201	Anatomy & Physiology I with Lab		4
COL 103	College Success		1
ENG 111	English Composition		3
	Elective		3
	(NUT 101, PSY 101, COM 111, or HIS 123)		
			14
Second Semester			
ALH 220	Medical Terminology		3
BIO 211	Anatomy & Physiology II with Lab		4
ENG 226	Introduction to Literature		3
MAT 116	Quantitative Reasoning		3
	Elective		3
	(ENG 227, SPA 101 or HIS 125)		
			16
Total Required			30

Students pursuing the associate in applied science degree in career studies are required to complete a minimum of 60 credit hours. These credits fall into three categories:

- Career/Vocational/Technical - 24

A total of 24 credits must be completed in a career track. Up to 20 credit hours may be awarded toward this requirement for related experiential knowledge within an occupational track at the College. [Students applying for experiential credits must provide a detailed portfolio to the college's academic dean for review and possible awarding of credit; students applying for portfolio credits must notify the admissions office at the time of application.]

- General Education - 21

A student must have a minimum of 12 credit hours in Communications, Social Sciences, Humanities and Fine Arts plus a minimum of 8 credit hours in Math/Sciences

- Electives - 15

A student may take any other courses from within the college to meet the total 60 credit hour requirement, except for developmental courses (courses numbered 099 or lower).

Key: CR= Credit Hours

COMMUNITY PARAMEDICINE

(Continued on next page)

Associate in Applied Science Degree Program

First Semester				C	L	CL	CR
>	ALH 124	Health & Safety Compliance		1	0	0	1
>	BIO 201	Anatomy & Physiology I		3	2	0	4
>>	EMS 243	Community Paramedicine		7	3	0	8
>	NUT 101	Introduction to Nutrition		3	0	0	3
				14	5	0	16
Second Semester							
>	BIO 211	Anatomy & Physiology II		3	2	0	4
>>	EMS 245	Community Paramedicine Clinical		0	0	9	3
	ENG 111	English Composition		3	0	0	3
	MAT 116	Quantitative Reasoning (or MAT 125 College Algebra)		3	0	0	3
				9	2	9	13
Third Semester							
>>	EMS 247	Community Paramedicine Seminar		1	0	0	1
	PSY 101	General Psychology		3	0	0	3
		Communication Elective		3	0	0	3
		General Elective		*	*	*	10
				7	0	0	17
Fourth Semester							
>>	EMS 246	Leadership in EMS		2	0	0	2
	SOC 111	Sociology		3	0	0	3
		Diversity / Ethical Reasoning Elective		*	*	*	3
		General Elective		*	*	*	3
		Humanities Elective		*	*	*	3
				5	*	*	14
Total Required				60			

- Candidates for admission must present at least one of the following: an active paramedic license or Advanced Care Paramedic license (Canada), proof of equivalent licensure from another state, or NREMT registration at the Paramedic level.
- EMS 245 is a faculty directed courses; students work with an assigned preceptor in various clinical rotations in both the hospital and community settings.
- Students must satisfactorily complete the Clinical Compliance Checklist, including immunizations prior to entering any clinical experience. Clinical facilities may prohibit students from their facilities, based on positive criminal background check.
- Applicants who have not successfully completed (73 or higher) ALH 124 within the past 12 months are required to take the course and/or demonstrate competency through work experience.
- A list of suggested courses to complete elective requirements will be provided to students.
- EMS 246 is provided entirely on-line.
- The clinical coordinator for EMS 245 will make every attempt to have clinical agreements within reasonable proximity of the student's home location.

> Major courses; a minimum grade of "C" or 2.0 is required

>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required

Key: C= Class Hours, CL= Clinical Hours, CR= Credit Hours, L=Laboratory

COMMUNITY PARAMEDICINE

(Continued from previous page)

Certificate Program

First Semester				C	L	CL	CR
>	ALH	124	Health & Safety Compliance	1	0	0	1
>>	EMS	243	Community Paramedicine	7	3	0	8
	ENG	111	English Composition	3	0	0	3
				11	3	0	12

Second Semester				C	L	CL	CR
>>	EMS	245	Community Paramedicine Clinical	0	0	9	3
>>	EMS	246	Leadership in EMS	2	0	0	2
>>	EMS	247	Community Paramedic Seminar	0	3	0	1
	MAT	116	Quantitative Reasoning (or MAT 125 College Algebra)	3	0	0	3
				5	3	9	9

Total Required	21
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Learning Outcomes

- | | |
|--|--|
| <ul style="list-style-type: none"> • Describe the role of the community paramedic within the healthcare system. • Prioritize healthcare needs based on disparate populations within the community. • Promote positive health behaviors in high risk populations. • Collaborate with healthcare team members to assist in the management of chronic disease through the reduction of social, behavioral, environmental and economic risk factors. | <ul style="list-style-type: none"> • Provide comprehensive, culturally competent care to individuals and groups. • Integrate health literacy and evidenced based research application when caring for clients. • Provide safe and effective care to diverse populations. • Exhibit the understanding of the leadership role the community paramedic will assume in the EMS system. |
|--|--|

> Major courses; a minimum grade of "C" or 2.0 is required

>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required

Key: C= Class Hours, CL= Clinical Hours, CR= Credit Hours, L=Laboratory

COMPUTER NUMERICAL CONTROL

Certificate Program

First Semester			C	L	CR
MAT 121	Technical Mathematics		4	0	4
> PMT 110	3D Solid Modeling		1	2	2
> PMT 111	CNC Mill & Lathe Operations		1	9	4
> PMT 112	CNC Mill Programming		2	0	2
> PMT 113	Print Reading for Machinists		2	0	2
> PMT 114	CNC Lathe Programming		2	0	2
> PMT 115	CNC Mill Setup		0	3	1
> PMT 117	CNC Lathe Setup		0	3	1
			12	17	18

Second Semester					
ENG 111	English Composition		3	0	3
> PMT 119	Inspection		1	3	2
> PMT 121	CNC Mill & Lathe Programming, Setup & Operations		1	9	4
> PMT 124	Basic CAM for Milling		1	3	2
> PMT 126	Basic CAM for Turning		1	3	2
> PMT 215	Auxiliary Devices for CNC Mills		1	6	3
> PMT 217	Auxiliary Devices for CNC Lathe		1	3	2
			9	27	18

Total Required **36**

Learning Outcomes

- Eligible for NIMS CNC Lathe Operator Certification
- Eligible for NIMS CNC Mill Operator Certification
- Eligible for Sandvik Metal Cutting Technology (MCT) Certification
- Demonstrate proficiency in reading, understanding and following detailed instructions and component drawings.
- Communicate effectively, both written and verbal form, in workplace scenarios using appropriate technical information.
- Recognize safety hazards and potential safety issues and apply safe work practices and procedures in accordance with OSHA standards in the manufacturing workplace.



The Computer Numerical Control Program is accredited by the National Institute of Metalworking Skills (NIMS).

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

DIESEL HYDRAULICS TECHNOLOGY

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
> AUT 115	Automotive Electricity		2	2	3
COL 103	College Success		1	0	1
> DIM 112	Introduction to Diesel Hydraulics*		3	9	3
> DIM 114	Engine Diagnosis / Tune-up*		3	9	3
ENG 111	English Composition		3	0	3
WEI 101	Introduction to Welding		2	2	3
			14	22	16

Second Semester					
> AUT 125	Automotive Electronics		2	2	3
> DIM 122	Heavy Equipment / Electrical Systems*		3	9	3
> DIM 123	Brake Systems*		3	9	1.5
> DIM 125	Suspension / Steering Systems*		3	9	1.5
MAT 121	Technical Mathematics		4	0	4
SAE 121	Industrial Safety		3	0	3
WEI 133	Electric Welding		2	2	3
			20	31	19

Third Semester					
> AUT 229	Automotive Heating & Air Conditioning		2	2	3
> DIM 211	Hydraulics Technology*		3	9	3
> DIM 213	Diesel Engine Rebuilding*		3	9	3
PHY 150	Physics		3	2	4
	Social Science Elective		3	0	3
			14	22	16

Fourth Semester					
AUT 216	Motor Vehicle Inspection		2	0	2
COM 221	Technical Communications		3	0	3
> DIM 221	Drive Train Systems*		3	9	3
> DIM 222	Air Conditioning Systems / Transport Refrigeration*		3	9	3
	Humanities Elective		3	0	3
	Elective		3	0	3
			17	18	17

Total Required **68**



The Computer Numerical Control Program is accredited by the National Institute of Metalworking Skills (NIMS).

**Note: DIM courses within a semester are scheduled sequentially, not concurrently*

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

DIESEL HYDRAULICS TECHNOLOGY

(Continued from previous page)

Certificate Program

First Semester			C	L	CR
> AUT	115	Automotive Electricity	2	2	3
COL	103	College Success	1	0	1
> DIM	112	Introduction to Diesel Hydraulics*	3	9	3
> DIM	114	Engine Diagnosis / Tune-up*	3	9	3
ENG	111	English Composition	3	0	3
WEI	101	Introduction to Welding	1	6	3
			13	26	16

Second Semester					
> AUT	125	Automotive Electronics	2	2	3
> DIM	122	Heavy Equipment / Electrical Systems*	3	9	3
> DIM	123	Brake Systems*	3	9	1.5
> DIM	125	Suspension / Steering Systems*	3	9	1.5
MAT	121	Technical Mathematics	4	0	4
SAE	121	Industrial Safety	3	0	3
WEI	133	Electric Welding	2	2	3
			20	31	19

Total Required **35**

Learning Outcomes

- Demonstrate safety in the workplace, using tools and equipment used in the repair facility.
- Identify truck/equipment routine maintenance standards such as lube, visual check over, and Out of Service procedures.
- Understand the principles of air brake systems and how to diagnose and repair systems including ABS.
- Perform engine valve/injector adjustments (engine tune up).
- Understand the principles of how engine management and exhaust aftertreatment work and how to diagnose and repair.
- Identify different hydraulic pumps and how to adjust relief pressures.
- Troubleshoot and repair electrical systems and engine controls.
- Be eligible for ASE T2-T8 certifications, Maine state Commercial Inspection Licensure and 609 Certification of Federal Clean Air Act.

**Note: DIM courses within a semester are scheduled sequentially, not concurrently*

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

EARLY CHILDHOOD EDUCATION

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
> ECE	101	Healthy Learning Environments	3	0	3
> ECE	105	Advancing Intellectual & Social Development	3	0	3
> ECE	192	Field Experience in Early Childhood Education I	0	9	3
PSY	101	General Psychology	3	0	3
		Math Elective	3	0	3
			12	9	15

Second Semester					
> ECE	120	Programmatic & Professional Development	3	0	3
> ECE	196	Field Experience in Early Childhood Education II	1	9	4
> ECE	200	Child Growth & Development	3	0	3
> ECE	205	Children's Literature	3	0	3
ENG	111	English Composition	3	0	3
			13	9	16

Third Semester					
BIO	115	General Biology	3	2	4
CIS	113	Introduction to Microcomputer Applications	3	0	3
COM	111	Speech	3	0	3
> ECE	210	Child Guidance & Discipline	3	0	3
> ECE	230	Curriculum in Early Childhood Education (Birth - 3)	3	0	3
			15	2	16

Fourth Semester					
> ECE	197	Field Experience in Early Childhood Education III	1	12	5
> ECE	220	Education of Young Children with Special Needs	3	0	3
> ECE	235	Curriculum in Early Childhood Education (Ages 3 - 8)	3	0	3
ENG	226	Introduction to Literature	3	0	3
SOC	111	Sociology	3	0	3
			13	12	17

Total Required **64**

> Major courses; a minimum grade of "C" or 2.0 required.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

EARLY CHILDHOOD EDUCATION

(Continued on next page)

Certificate Program

First Semester		C	L	CR
> ECE 101	Healthy Learning Environments	3	0	3
> ECE 105	Advancing Intellectual & Social Development	3	0	3
> ECE 192	Field Experience in Early Childhood Education I	0	9	3
PSY 101	General Psychology	3	0	3
	Math Elective	3	0	3
		12	9	15

Second Semester				
CIS 113	Introduction to Microcomputer Applications	3	0	3
> ECE 120	Programmatic & Professional Development	3	0	3
> ECE 196	Field Experience in Early Childhood Education II	1	9	4
111	English Composition	3	0	3
		10	9	13

Summer Semester				
> ECE 197	Field Experience in Early Childhood Education III	1	12	5

Total Required		33		
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> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

EARLY CHILDHOOD EDUCATION

(Continued from previous page)

Graduates of the ECE program will:

- Use their understanding of young children's characteristics and needs, and of multiple interacting influences on children's development and learning, to create environments that are healthy, respectful, supportive, and challenging for all children.
- Know about, understand, and value the importance and complex characteristics of children's families and communities; use this understanding to create respectful, reciprocal relationships that support and empower families and to involve all families in their children's development and learning.
- Know about and understand the goals, benefits and uses of assessment, and understand and use systematic observations, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence children's development.
- Know, understand, and use positive relationships and supportive interactions as the foundations for their work with young children.
- Identify and conduct themselves as members of the early childhood profession; they will know and use ethical guidelines and other professional standards related to early childhood practices; they will be continuous, collaborative learners who demonstrate knowledgeable, reflective and critical perspectives on their work, make informed decisions that integrate knowledge from a variety of sources; and they will be informed advocates for sound educational practices and policies.
- Know, understand, and use a wide array of effective approaches, strategies, and tools to positively influence children's development and learning.
- Understand the importance of each content area in young children's learning; they will know the essential concepts, inquiry tools, and structure of content areas, including academic subjects, and will be able to identify resources to deepen their understanding.
- Use their own knowledge and other resources to design, implement, and evaluate meaningful, challenging curriculum that promotes comprehensive developmental and learning outcomes for all young children.
- Integrate their understanding of and relationship with children and families; their understanding of developmentally effective approaches to teaching and learning; and their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive development and learning for all young children.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

ELECTRICAL CONSTRUCTION & MAINTENANCE

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
COL 103	College Success		1	0	1
> ELE 112	Basic Residential Wiring		2	2	3
> ELS 115	Basic Electricity / Electronics		3	0	3
> ELS 116	Basic Electricity / Electronics Lab		0	6	2
ENG 111	English Composition		3	0	3
MAT 121	Technical Mathematics		4	0	4
			<u>13</u>	<u>8</u>	<u>16</u>

Second Semester					
DIB 113	Introduction to Digital Systems		2	2	3
DRR 117	Blueprint Reading for Construction Trades		2	2	3
> ELS 124	Industrial Electronics		2	3	3
> ELS 125	Motors & Controls		2	3	3
	Social Science Elective		3	0	3
			<u>11</u>	<u>10</u>	<u>15</u>

Third Semester					
EET 221	Control Systems & PLCs		2	3	3
> ELC 110	National Electric Code		3	0	3
> ELE 210	Electrical Construction & Maintenance I		3	0	3
> ELE 212	Electrical Construction & Maintenance I Lab		0	9	3
PHY 150	Physics		3	2	4
			<u>11</u>	<u>14</u>	<u>16</u>

Fourth Semester					
COM 221	Technical Communications		3	0	3
> ELC 116	National Electric Code for Industry		3	0	3
> ELE 222	Electric Construction & Maintenance II		3	0	3
> ELE 223	Electric Construction & Maintenance II Lab		0	9	3
	Humanities Elective		3	0	3
			<u>12</u>	<u>9</u>	<u>15</u>

Total Required		62
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> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

ELECTRICAL CONSTRUCTION & MAINTENANCE

(Continued from previous page)

Certificate Program

First Semester			C	L	CR
> ELC	110	National Electric Code	3	0	3
> ELE	112	Basic Residential Wiring	2	2	3
> ELS	115	Basic Electricity / Electronics	3	0	3
> ELS	116	Basic Electricity / Electronics Lab	0	6	2
MAT	121	Technical Mathematics	4	0	4
			12	8	15

Second Semester					
DRR	117	Blueprint Reading for Construction Trades	2	2	3
> ELC	116	National Electric Code for Industry	3	0	3
> ELS	124	Industrial Electronics	2	3	3
> ELS	125	Motors & Controls	2	3	3
ENG	111	English Composition	3	0	3
			12	8	15

Total Required **30**

Learning Outcomes

- Understand the behavior and principles that govern AC and DC electrical circuits.
- Exhibit safety practices and procedures.
- Interpret the National Electrical Code as it applies to the electrical industry.
- Troubleshoot electrical circuits and equipment using available information.
- Calculate electrical quantities.
- Interpret blueprints related to building, mechanical, and electrical system.
- Demonstrate an understanding of the theory and skills associated with the electrical industry.
- Be eligible to take State of Maine journeyman's electrician examination and to enter employment under a master electrician.
- Qualify for employment opportunities with electrical contractors, electrical equipment suppliers, utilities and industrial maintenance companies.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

EMERGENCY MEDICAL SERVICES

(Continued on next page)

Associate in Applied Science Degree Program

Pre-requisite: EMT Basic Certificate

First Semester			C	L	F	CL	CR
>	BIO 201	Anatomy & Physiology I with Lab	3	2	0	0	4
>>	EMS 112	Respiratory Emergencies	1.5	1.5	0	0	2
>>	EMS 113	Cardiology I	2	0	0	0	2
>>	EMS 114	AEMT Lab	0	3	0	0	1
>>	EMS 115	Fundamentals of EMS Systems	3	0	0	0	3
	ENG 111	English Composition	3	0	0	0	3
			12.5	6.5	0	0	15

Pre-requisite: EMT Basic License

Second Semester			C	L	F	CL	CR
>	ALH 124	Health & Safety Composition	1	0	0	0	1
>	BIO 211	Anatomy & Physiology II	3	2	0	0	4
>>	EMS 122	AEMT Clinical Externship I	0	0	0	6	2
>>	EMS 126	AEMT Clinical Externship II	0	0	6	0	2
>>	EMS 130	AEMT - Skills Seminar	0	3	0	0	1
	MAT 116	Quantitative Reasoning (or MAT 125 College Algebra)	3	0	0	0	3
			7	5	6	6	13

Third Semester			C	L	F	CL	CR
>>	EMS 213	Advanced Emergency Cardio Care (ACLS)	3	3	0	0	4
>>	EMS 214	Advanced Emergency Pharmacology	2.5	0.5	0	0	3
	PHY 101	General Psychology	3	0	0	0	3
		Communication Elective	3	0	0	0	3
			11.5	3.5	0	0	13

Pre-requisite: AEMT Level Licensure

Fourth Semester			C	L	F	CL	CR
>>	EMS 205	Medical Emergencies (AMLS)	3	0	0	0	3
>>	EMS 216	Paramedic Clinical Externship I	0	0	0	15	5
>>	EMS 220	Pediatric Emergencies (PALS / EPC)	1.5	1.5	0	0	2
>>	EMS 222	Trauma Management (PHTLS)	1.5	2.5	0	0	3
>>	EMS 236	Paramedic Assessment Management	0	3	0	0	1
			6	7	0	15	14

> Major courses; a minimum grade of "C" or 2.0 is required

>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required

Key: C= Class Hours, CL= Clinical Hours, CR= Credit Hours, F= Field, L=Laboratory

EMERGENCY MEDICAL SERVICES

(Continued from previous page)

Fifth Semester		C	L	F	CL	CR
>> EMS 226	Paramedic Clinical Externship II	0	0	12	0	4
>> EMS 229	EMT-Paramedic Skills	0	3	0	0	1
>> EMS 231	Special Population	1	0	0	0	1
>> EMS 232	Paramedic Clinical Capstone	0	0	0	45	1
>> EMS 233	EMS Operations	0	3	0	0	1
SOC 111	Sociology	3	0	0	0	3
	Humanities Elective	3	0	0	0	3
		7	6	12	45	14

Total Required

69

Learning Outcomes

- Integrate knowledge and skills in providing high quality, safe emergency care to individuals and groups throughout the lifespan experiencing complex health needs.
- Demonstrate critical thinking and decision making skills through the organization of safe competent care for individuals experiencing life threatening emergencies.
- Utilize effective written, verbal and nonverbal communication skills in caring for patients and families in a variety of healthcare situations and settings.
- Delegate appropriately and work collaboratively with members of the healthcare team.
- Assume professional and legal responsibility and accountability within defined competency roles in managing and directing care to individuals or groups across the healthcare continuum.
- Provide culturally competent care for patients and groups of various ethnic, socio-economic, and cultural backgrounds.



CAAHEP

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> Major courses; a minimum grade of "C" or 2.0 is required

>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required

Key: C= Class Hours, CL= Clinical Hours, CR= Credit Hours, F= Field, L=Laboratory

ADVANCED EMERGENCY MEDICAL TECHNICIAN

Certificate Program

First Semester			C	L	F	CL	CR
>	ALH 124	Health & Safety Compliance	1	0	0	0	1
>>	EMS 112	Respiratory Emergencies	1.5	1.5	0	0	2
>>	EMS 113	Cardiology I	2	0	0	0	2
>>	EMS 114	AEMT Lab	0	3	0	0	1
>>	EMS 115	Fundamentals of EMS Systems	2.5	1.5	0	0	3
	ENG 111	English Composition	3	0	0	0	3
			10	6	0	0	12

Pre-requisite: Active EMT Certificate or equivalent licensure

Second Semester			C	L	F	CL	CR
>>	EMS 122	AEMT Clinical Externship I	0	0	0	6	2
>>	EMS 126	AEMT Clinical Externship II	0	0	6	0	2
>>	EMS 130	AEMT Skills Seminar	0	3	0	0	1
	MAT 116	Quantitative Reasoning (or MAT 125 College Algebra)	3	0	0	0	3
			3	3	6	6	8

Total Required **20**

Learning Outcomes

- Integrate knowledge and skills in providing high quality, safe emergency care to individuals and groups throughout the lifespan experiencing complex health needs.
- Demonstrate critical thinking and decision making skills through the organization of safe, competent care for individuals experiencing life threatening emergencies.
- Utilize effective written, verbal and nonverbal communication skills in caring for patients and families in a variety of healthcare situations and settings.
- Delegate appropriately and work collaboratively with members of the healthcare team.
- Assume professional and legal responsibility and accountability within defined competency roles in implementing care to individuals in the pre-hospital setting.
- Provide culturally competent care for patients and groups of various ethnic, socio-economic, and cultural backgrounds.

> Major courses; a minimum grade of "C" or 2.0 is required
>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required
 Key: C= Class Hours, CL= Clinical Hours, CR= Credit Hours, F= Field, L=Laboratory

PARAMEDICINE

Certificate Program

First Semester				C	L	F	CL	CR
>	BIO	201	Anatomy & Physiology I	3	2	0	0	4
>>	EMS	213	Advanced Emergency Cardio Care (ACLS)	3	3	0	0	4
>>	EMS	214	Advanced Emergency Pharmacology	2.5	0.5	0	0	3
				8.8	5.5	0	0	11

Second Semester				C	L	F	CL	CR
>	BIO	211	Anatomy & Physiology II	3	2	0	0	4
>>	EMS	205	Medical Emergencies (AMLS)	3	0	0	0	3
>>	EMS	216	Paramedic Clinical Externship I	0	0	0	15	5
>>	EMS	220	Pediatric Emergencies (PALS / NRP)	1.5	1.5	0	0	2
>>	EMS	222	Trauma Management (PHTLS)	1.5	2.5	0	0	3
>>	EMS	236	Paramedic Assessment Management	0	3	0	0	1
				9	9	0	15	18

Third Semester				C	L	F	CL	CR
>>	EMS	226	Paramedic Clinical Externship II	0	0	12	0	4
>>	EMS	229	EMT - Paramedic Skills	0	3	0	0	1
>>	EMS	231	Special Populations	1	0	0	0	1
>>	EMS	232	Paramedic Clinical Capstone	0	0	0	45	1
>>	EMS	233	EMS Operations	1	0	0	0	1
				2	3	12	45	8

Total Required **37**

Learning Outcomes

- Integrate knowledge and skills in providing high quality, safe emergency care to individuals and groups throughout the lifespan experiencing complex health needs.
- Demonstrate critical thinking and decision making skills through the organization of safe, competent care for individuals experiencing life threatening emergencies.
- Utilize effective written, verbal and nonverbal communication skills in caring for patients in the pre-hospital setting.
- Work collaboratively with members of the healthcare team.
- Assume professional and legal responsibility and accountability within defined competency roles in implementing care to individuals in the pre-hospital setting.
- Provide culturally competent care for patients and groups of various ethnic, socio-economic, and cultural backgrounds.

> Major courses; a minimum grade of "C" or 2.0 is required

>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required

Key: C= Class Hours, CL= Clinical Hours, CR= Credit Hours, F= Field, L=Laboratory

ENTREPRENEURSHIP

Certificate Program

First Semester			CR
ACC	110	College Accounting (or ACC 114 Principles of Accounting I)	3
> BUS	101	Introduction to Business	3
CIS	105	Introduction to PC Operating Systems	1
> CIS	113	Introduction to Microcomputer Applications	3
ENG	111	English Composition	3
MAT	115	Business Math (or MAT 116 Quantitative Reasoning)	3
			16
Second Semester			
> ACC	112	Computerized Accounting	3
ACC	113	Payroll Accounting	3
> BUS	109	Entrepreneurship	3
> BUS	241	Principles of Marketing	3
CIS	108	Spreadsheet Applications	3
			15
Total Required			31

Learning Outcomes

- Perform financial statement analysis.
- Utilize accounting information for decision making.
- Demonstrate knowledge of marketing research and skills necessary to create a marketing plan.
- Demonstrate knowledge and skills in the field of entrepreneurship.
- Proficiently use technology.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: CR= Credit Hours

LIBERAL STUDIES

(Continued on next page)

Associate in Arts Degree Program

First Semester			CR
	COL 103	College Success	1
>	ENG 111	English Composition	3
>	MAT 116	Quantitative Reasoning (or Higher Level Math)	3
>		Diversity Elective (PHI 206 or HIS 206)	3
>		Humanities Elective	3
>		Social Science Elective	3
			15-16

Second Semester			
>	ENG 226	Introduction to Literature	3
>		Creative Arts Elective (ART 201 or ENG 239)	3
>		Science Elective	4
>		Writing Elective (ENG 227 Recommended)	3
		Elective	3
			16

Third Semester			
>		Social Science Elective	3
		Electives	12
			15

Fourth Semester			
>		Ethical Reasoning Elective (PHI 201 Recommended)	3
		Electives	12
			15

Minimum Required	60
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> Major courses; a minimum grade of "C" or 2.0 is required

Key: CR= Credit Hours

LIBERAL STUDIES

(Continued from previous page)

Transfer Certificate Program

First Semester			CR
	COL 103	College Success	1
>	ENG 111	English Composition	3
>	MAT 116	Quantitative Reasoning (or Higher Level Math)	3
>		Social Science Elective	3
>		Humanities Elective	3
>		Diversity Elective (PHI 206 or HIS 206)	3
			15-16
Second Semester			
>	ENG 226	Introduction to Literature	3
>		Creative Arts Elective (ART 201 or ENG 239)	3
>		Science Elective	4
>		Writing Elective (ENG 227 Recommended)	3
		Elective	3
			16
Minimum Required			31

Graduates of the Liberal Studies program will:

- Be able to communicate effectively, both orally and in writing.
- Be able to search for, access, evaluate information from a variety of sources and use that information ethically and legally for research and personal purposes.
- Understand mathematical concepts and be able to perform mathematical operations to solve practical problems.
- Demonstrate the ability to be consumers of biological and other scientific information to better inform their daily lives.
- Be able to analyze or explain causal forces which shape social structures, institutions, or behavior through time.
- Be able to read, analyze, and interpret significant texts in order to make meaning, find purpose, and choose values that enhance our understanding of ourselves and govern our relationships with others.
- Develop knowledge and appreciation of the aesthetic dimensions of humankind.
- Demonstrate knowledge of cultural differences.
- Develop an understanding of ethical theories and develop a logical system of values and morality and be able to apply those values and principles to moral problems.
- Develop the basic academic skills and traits necessary to complete a college degree.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: CR= Credit Hours

MEDICAL ASSISTING

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
ALH	220	Medical Terminology	3	0	3
> BIO	114	Human Biology with Lab	3	2	4
> MDA	100	Introduction to Medical Assisting	1	0	1
> MDA	110	Medical Assisting Office Procedures	3	0	3
> MDA	112	Medical Assisting Procedures I with Lab	3	2	4
			13	4	15

Second Semester					
ENG	111	English Composition	3	0	3
MAT	116	Quantitative Reasoning	3	0	3
> MDA	125	Medical Insurance & Coding	3	0	3
> MDA	213	Medical Assisting Procedures II with Lab	3	2	4
			12	2	13

Summer Semester					
> MDA	223	Medical Assisting Externship	1	12	5

Third Semester					
> BIO	211	Anatomy & Physiology II with Lab	3	2	4
COM	221	Technical Communications	3	0	3
> MDA	224	Electronic Health Records	3	0	3
PSY	101	General Psychology	3	0	3
		Humanities Elective	3	0	3
			15	2	16

Fourth Semester					
> HIT	111	Medical Law & Ethics	3	0	3
> HIT	115	Clinical Applications Pathophysiology & Pharmacology	3	0	3
PSY	207	Developmental Psychology	3	0	3
		Elective	3	0	3
			12	0	12

Total Required	61
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> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

MEDICAL ASSISTING

(Continued from previous page)

Certificate Program

First Semester			C	L	CR
ALH	220	Medical Terminology	3	0	3
> BIO	114	Human Biology with Lab	3	2	4
> MDA	100	Introduction to Medical Assisting	1	0	1
> MDA	110	Medical Assisting Office Procedures	3	0	3
> MDA	112	Medical Assisting Procedures I with Lab	3	2	4
			13	4	15
Second Semester					
ENG	111	English Composition	3	0	3
MAT	116	Quantitative Reasoning	3	0	3
> MDA	125	Medical Insurance & Coding	3	0	3
> MDA	213	Medical Assisting Procedures II with Lab	3	2	4
			12	2	13
Summer Semester					
> MDA	223	Medical Assisting Externship	1	12	5
Total Required			33		

Learning Outcomes

- Demonstrate an understanding of anatomical structure and normal physiological functions in the human body and of medical terms descriptive of body systems.
- Demonstrate a basic understanding of the concepts and applications of pharmacology to include safe medication administration.
- Demonstrate effective communication with patients, their families, and other members of the health care team.
- Integrate principles of safety, sterilization and disinfecting in all aspects of patient/office procedures.
- Demonstrate administrative competency, to include but not limited to, scheduling, bookkeeping procedures, records management, coding and insurance processing.
- Demonstrate clinical competency to include, but not limited to, specimen collection, processing and analysis, obtaining vital signs, preparing patients for exams or treatments, assisting in procedures, and patient education.
- Demonstrate professional behavior that reflects an internalization of ethical, legal and self management concepts.
- Demonstrate critical thinking skills through organization of safe, competent care provided for individuals.



The Medical Assisting Certificate Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

MEDICAL CODING

Certificate Program

First Semester		C	L	CR
> ALH 220	Medical Terminology	3	0	3
> BIO 114	Human Biology with Lab	3	2	4
ENG 111	English Composition	3	0	3
> HIT 114	Clinical Classification Systems I with Lab	2	2	3
> HIT 116	Clinical Classification Systems II with Lab	2	2	3
		13	6	16
Second Semester				
> HIT 112	Medical Law, Reimbursement & Delivery Systems	3	0	3
> HIT 115	Pathophysiology & Pharmacology	3	0	3
> HIT 214	ICD-10-CM/PCS Coding Part II	3	0	3
> HIT 216	CPT Coding Part II	3	0	3
MAT 116	Quantitative Reasoning	3	0	3
		15	0	15
Second Semester				
> HIT 219	Professional Practical Experience	0	60	2
Total Required		33		

Learning Outcomes

- Demonstrate the ability to translate information from the medical record into standardized numerical codes accurately and in an efficient manner.
- Demonstrate professional behavior in the work place including patient confidentiality and professional ethics.
- Recognize factors that affect third-party reimbursement.
- Demonstrate entry level skills in coding with ICD-10-CM/PCS and CPT.
- Describe the relationship between coding and reimbursement in healthcare.
- Demonstrate clear and effective communication skills, critical thinking, and problem solving within their scope of practice.
- Demonstrate theory, technology, and interpersonal skills that may be applied to a variety of employment settings.
- Describe the principles and mechanics of the electronic health record (EHR).
- Transfer to an advanced degree in such areas as Health Information Management, if desired.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

NETWORK ADMINISTRATION & CYBERSECURITY

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
> COE 113	Operating Systems		2	2	3
> COE 116	A+ Certification Prep		3	0	3
> COE 118	A+ Certification Prep Lab		0	9	3
COL 103	College Success		1	0	1
ENG 111	English Composition		3	0	3
MAT 115	Business Math		3	0	3
	(or MAT 116 Quantitative Reasoning)				
			12	11	16

Second Semester			C	L	CR
> COE 125	Computer Network Hardware		2	2	3
> COE 128	Advanced Operating Systems		2	2	3
> COE 217	Installing & Configuring Servers		2	4	4
COM 212	Business Communications I		3	0	3
MAT 125	College Algebra		3	0	3
			12	8	16

Third Semester			C	L	CR
COE 112	Introduction to Linux		2	2	3
> COE 218	Network Administration		2	4	4
> COE 219	Electronics for Computer Technicians		2	3	3
> COE 228	Security+ Certification		2	2	3
ECO 213	Macroeconomics		3	0	3
			11	11	16

Fourth Semester			C	L	CR
> COE 220	Introduction to Computer Forensics		2	2	3
> COE 227	Configuring Advanced Windows Server		2	4	4
> COE 229	Ethical Hacking		2	2	3
	Humanities Elective		3	0	3
	General Elective		3	0	3
			12	8	16

Total Required		64
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> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

NETWORK ADMINISTRATION & CYBERSECURITY

(Continued from previous page)

Certificate Program

First Semester			C	L	CR
> COE 113	Operating Systems		2	2	3
> COE 116	A+ Certification Prep		3	0	3
> COE 118	A+ Certification Prep Lab		0	9	3
ENG 111	English Composition		3	0	3
MAT 115	Business Math (or MAT 116 Quantitative Reasoning)		3	0	3
			11	11	15
Second Semester					
COE 112	Introduction to Linux		2	2	3
> COE 125	Computer Network Hardware		2	2	3
> COE 128	Advanced Operating Systems		2	2	3
> COE 217	Installing & Configuring Servers		2	4	4
COM 212	Business Communications I (or MAT 125 College Algebra)		3	0	3
			11	10	16
Total Required			31		

Learning Outcomes

- Demonstrate the skills required to gain and maintain entry-level employment in the information technology industry.
- Explore different areas of expertise and analyze career opportunities.
- Install, troubleshoot, and monitor a secure network to maintain integrity, confidentiality, and availability of data and service.
- Understand the computer forensics profession and investigations.
- Explain digital forensics analysis and validation.
- Describe the role of an ethical hacker.
- Identify desktop and server operating systems vulnerabilities and explain ways to fix them.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

NURSING

(Continued on next page)

Associate in Science Degree Program

Pre-requisites			C	L	CR
>	BIO 201	Anatomy & Physiology I with Lab	3	2	4
	ENG 111	English Composition	3	0	3
	MAT 116	Quantitative Reasoning (or MAT 125 College Algebra)	3	0	3
			<hr/>	<hr/>	<hr/>
			9	2	10

First Semester					
>	ALH 124	Health & Safety Compliance*	1	0	1
>	BIO 211	Anatomy & Physiology II with Lab	3	2	4
	NUR 100	Nursing Program Success	1	0	1
>>	NUR 117	Nutrition**	3	0	3
>>	NUR 128	Foundations of Nursing	4	0	4
>>	NUR 129	Clinical Practicum I Geriatric Population	0	9	3
			<hr/>	<hr/>	<hr/>
			12	11	16

Winter Session					
	NUR 124	Role Transition (Only required for LPNs entering second semester)	1	0	1

Second Semester					
>>	NUR 115	Pharmacology for Nurses***	3	0	3
>>	NUR 130	Nursing Across the Lifespan I	4	0	4
>>	NUR 131	Clinical Practicum II Across the Lifespan	0	9	3
	PSY 101	General Psychology	3	0	3
			<hr/>	<hr/>	<hr/>
			10	9	13

Third Semester					
>>	BIO 218	Microbiology Lecture with Lab	3	2	4
>>	NUR 225	Nursing Across the Lifespan II	5	0	5
>>	NUR 228	Clinical Practicum III Across the Lifespan	0	12	4
	PSY 207	Developmental Psychology	3	0	3
			<hr/>	<hr/>	<hr/>
			11	14	16

Fourth Semester					
	COM 111	Speech	3	0	3
>>	NUR 230	Nursing Across the Lifespan III	5	0	5
>>	NUR 231	Clinical Practicum IV Across the Lifespan	0	12	4
		Humanities Elective	3	0	3
			<hr/>	<hr/>	<hr/>
			11	12	15

Total Required **60 / 61**

ALH 124 must be passed within 12 months of enrollment into NUR 125, **NUR 117 is a co-requisite to NUR 125, *NUR 115 is a co-requisite to NUR 127*

> Major courses; a minimum grade of "C" or 2.0 is required
>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

NURSING

(Continued from previous page)

Learning Outcomes

- Evaluate holistic nursing care provided to diverse clients, families, and groups across the lifespan from a variety of settings to ensure that it is compassionate, age and culturally appropriate.
- Collaborate with the interprofessional health care team to manage and coordinate the provision of safe, quality care for clients, families and groups.
- Demonstrate effective use of strategies and client care technology to mitigate errors and reduce the risk of harm to clients, self, and others in a variety of settings.
- Incorporate integrity and accountability while providing client-centered, standard-based nursing care consistent with established regulatory, legal and ethical principles.
- Utilize leadership, management, and priority setting in the provision of safe, high quality client-centered care in a financially responsible manner.
- Demonstrate use of best current evidence, clinical expertise, and quality improvement practices when making clinical decisions in the provision of client-centered care.

The following must be successfully completed prior to entering the program (or concurrently for students admitted directly from high school).

BIO 201 Anatomy & Physiology I w/ Lab

ENG 111 English Composition

*MAT 116 Quantitative Reasoning
(or MAT 125 College Algebra)*

The associate nursing program at NMCC is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, GA 30326 and is approved by the Maine State Board of Nursing.

The most recent accreditation decision made by the ACEN Board of Commissioners for the associate nursing program is Continuing Accreditation.

The Maine State Board of Nursing may refuse to grant a license on the basis of the criminal history record information relating to convictions denominated in Title V Chapter 341 Section 5301 Subsection II of the Maine Revised Statutes Annotated.

OFFICE ASSISTANT

Certificate Program

First Semester			CR
ACC	110	College Accounting (or ACC 114 Principles of Accounting I)	3
> BUS	101	Introduction to Business	3
CIS	105	Introduction to PC Operating Systems	1
> CIS	113	Introduction to Microcomputer Applications	3
ENG	111	English Composition	3
MAT	115	Business Math (or MAT 116 Quantitative Reasoning)	3
			16
Second Semester			
> ACC	112	Computerized Accounting	3
ACC	113	Payroll Accounting	3
CIS	108	Spreadsheet Applications	3
> SES	129	Office Procedures	3
		Elective	3
			15
Total Required			31

Learning Outcomes

- Perform the steps of the accounting cycle.
- Demonstrate the ability to use computerized accounting software.
- Prepare professional formatted documents to current business and discipline preferences.
- Demonstrate knowledge and skills in the field of business.
- Proficiently use technology.

> Major courses; a minimum grade of "C" or 2.0 is required

CR= Credit Hours

PLUMBING & HEATING TECHNOLOGY

(Continued on next page)

Associate in Applied Science Degree Program

First Semester			C	L	CR
COL 103	College Success		1	0	1
ENG 111	English Composition		3	0	3
> PLH 101	Plumbing Technology		3	0	3
> PLH 109	Plumbing I Lab		0	9	3
> PLH 113	Pipefitting Calculations		3	0	3
SAE 117	Occupational Safety		1	0	1
			11	9	14

Second Semester					
DRR 117	Blueprint Reading for Construction Trades		2	2	3
MAT 121	Technical Mathematics		4	0	4
> PLH 122	Plumbing Code Review		3	0	3
> PLH 123	Plumbing II Lab		0	9	3
> PLH 126	Water Pumps & Treatment		1	2	2
			10	13	15

Third Semester					
PHY 150	Physics		3	2	4
> PLH 209	HVAC Controls		1	2	2
> PLH 214	Heating Technology I		3	0	3
> PLH 216	Propane & Natural Gas I		2	2	3
> PLH 218	Heating I Lab		0	9	3
	Humanities Elective		3	0	3
			12	15	18

Fourth Semester					
COM 221	Technical Communications		3	0	3
> PLH 219	Propane & Natural Gas II		2	2	3
> PLH 222	Heating II Lab		2	9	5
> PLH 225	Maine Oil / Solid Fuel Code I		1	0	1
> PLH 226	Refrigeration & Air Conditioning		1	2	2
	Social Science Elective		3	0	3
			12	13	17

Total Required **64**

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

PLUMBING & HEATING TECHNOLOGY

(Continued from previous page)

PLUMBING Certificate Program

First Semester			C	L	CR
ENG 111	English Composition		3	0	3
> PLH 101	Plumbing Technology		3	0	3
> PLH 109	Plumbing I Lab		0	9	3
> PLH 113	Pipefitting Calculations		3	0	3
SAE 117	Occupational Safety		1	0	1
			10	9	13

Second Semester					
DRR 117	Blueprint Reading for Construction Trades		2	2	3
MAT 121	Technical Mathematics		4	0	4
> PLH 122	Plumbing Code Review		3	0	3
> PLH 123	Plumbing II Lab		0	9	3
> PLH 126	Water Pumps & Treatment		1	2	2
			10	13	15

Total Required **28**

Must have completed the Plumbing Certificate Program or permission of the instructor to enroll in this certificate program

HEATING Certificate Program

First Semester					
ENG 111	English Composition		3	0	3
> PLH 209	HVAC Controls		1	2	2
> PLH 214	Heating Technology I		3	0	3
> PLH 216	Propane & Natural Gas I		2	2	3
> PLH 218	Heating I Lab		0	9	3
			9	13	14

Second Semester					
121	Technical Mathematics		4	0	4
> PLH 219	Propane & Natural Gas II		2	2	3
> PLH 222	Heating II Lab		2	9	5
> PLH 225	Maine Oil / Solid Fuel Code I		1	0	1
> PLH 226	Refrigeration & Air Conditioning		1	2	2
			10	13	15

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

PLUMBING & HEATING TECHNOLOGY

(Continued from previous page)

Learning Outcomes

- Install Oil, Gas, Water Distribution, Hydronic Distribution and Drainage Waste & Vent piping and fitting using threading, soldering, grooving, compression, expansion and solvent welding systems.
- Correctly size and design distribution systems associated with the Plumbing and Heating trade water distribution, gas distribution and DWV systems.
- Demonstrate correct and safe installation, service and troubleshooting methods of plumbing, hydronic, and refrigeration and Air Conditioning systems.
- Demonstrate correct and safe installation and troubleshooting methods for the Wiring and Controls needed for the Plumbing, Heating, and Refrigeration and AC industry as well as be able to read and understand basic ladder and schematic diagrams.
- Understand State and Federal Codes governing the installation and service requirements needed for the Plumbing & Heating trades as well as be able to read and interpret trade blueprints.
- Be eligible for the following licenses and certifications:
 - a. Maine State Journeyman Heating License
 - b. Maine State Journeyman in Training Plumbing License
 - c. Maine State Propane & Natural Gas Technician License
 - d. Certified Employees Training Program (CETP) Certificates for Basic Principles and Practices, 4.2, 4.3, 4.4, 4.5, and 4.6 Books.
 - e. EPA 608 Universal Refrigeration Certification

PRACTICAL NURSING

(Continued on next page)

Certificate Program

Pre-requisites				C	L	CR
>	ALH	124	Health & Safety Compliance	1	0	1

First Semester						
>	BIO	201	Anatomy & Physiology I with Lab	3	2	4
	ENG	111	English Composition	3	0	3
> >	NUR	101	Fundamentals of Practical Nursing	8	0	8
> >	NUR	106	Clinical Practicum I Adult / Geriatric	0	9	3
				14	11	18

Second Semester						
>	BIO	211	Anatomy & Physiology II with Lab	3	2	4
> >	NUR	105	Pharmacology for Practical Nursing	3	0	3
>>	NUR	107	Practical Nursing Across the Lifespan	8	0	8
> >	NUR	109	Clinical Practicum II Special Populations	0	9	3
				14	11	18

Total Required **36**

*ALH 124: Health and Safety Compliance must be successfully completed within twelve months or immediately prior to enrollment into NUR 104: Clinical Practicum I

Anatomy & Physiology and English Composition courses are offered every semester at NMCC, and may be taken prior to beginning the Practical Nursing courses when the schedule allows.

Effective July 7, 2022, this nursing program is a candidate for initial accreditation by the Accreditation Commission for Education in Nursing. This candidacy status expires on July 7, 2024. Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326 (404) 975-5000 <http://www.acenursing.com/candidates/candidacy.as>

> Major courses; a minimum grade of "C" or 2.0 is required
>> Major courses; a minimum grade of "C+" or a minimum grade of 77 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

PRACTICAL NURSING

(Continued from previous page)

Learning Outcomes

- Assume legal and ethical responsibility and accountability consistent with the Maine State Nurse Practice Act, Maine Board of Nursing rules and regulations, and professional standards of practice. (SLO1)
- Systematically apply the nursing process with individuals and groups across the lifespan to promote wellness, prevent illness and facilitate adaptation to stressors. (SLO2)
- Incorporate teaching/learning principles into the provision of care to individuals and groups. (SLO3)
- Implement best practice standards to achieve positive outcomes for clients across the lifespan. (SLO4)
- Incorporate quality improvement as an essential part of the nursing profession. (SLO5)
- Demonstrate professional nursing care that incorporates sensitivity and caring behaviors to culturally diverse clients and groups, including the older adult. (SLO6)
- Demonstrate safe and effective clinical judgements using critical thinking skills when providing nursing care for individuals and groups. (SLO7)
- Collaborate with health care team members, individual clients and groups to achieve optimal outcomes. (SLO8)
- Employ effective therapeutic and professional communication skills in the practice of nursing. (SLO9)
- Utilize healthcare technology and informatics to provide safe and effective nursing care. (SLO10)
- Deliver high quality client care within the changing healthcare system, using resources in a financially responsible manner. (SLO11)
- Demonstrate efficiency as manager of care through prioritization and delegation in providing optimal nursing care for individuals and groups. (SLO12)
- Develop plans for continued personal and professional growth. (SLO13)

STRUCTURAL WELDING

Certificate Program

First Semester			C	L	CR
DRR	109	Print Reading for Welders	2	2	3
MAT	121	Technical Mathematics	4	0	4
> WEI	101	Introduction to Welding* (4 Weeks)	2	2	3
> WEI	133	Electric Welding* (4 Weeks)	2	2	3
> WEI	137	Structural Welding I* (7 Weeks)	1.5	4.5	3
			11.5	10.5	16

Second Semester					
ENG	111	English Composition	3	0	3
SAE	121	Industrial Safety	3	0	3
> WEI	136	Introduction to GMAW & GTAW	2	2	3
> WEI	138	Structural Welding II* (7.5 Weeks)	1.5	4.5	3
> WEI	139	Open Root Welding* (7.5 Weeks)	1.5	4.5	3
WEI	140	Plasma Table Operations	1	2	2
			12	13	17

Total Required **33**

Learning Outcomes

- Demonstrate safe and proper use of hand and power tools used by the welder.
- Identify the metals being used and the filler wire needed to weld them.
- Demonstrate the ability to fit and tack a v-groove weld correctly.
- Demonstrate the ability to properly weld a 3/8 v-groove in 4 positions.
- Demonstrate the ability to destructively test a 3/8 v-groove weld and meet AWS test specifications.
- Read and interpret welding symbols used on fabrication, manufacturing and construction prints.
- Demonstrate the ability to weld in all positions with all welding equipment.
- Be eligible for the American Welding Society (AWS) structural certification.

**Note: WEI courses within a semester are scheduled sequentially, not concurrently*

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

WATER TREATMENT TECHNOLOGY

(Continued on next page)

Associate in Applied Science Degree Program

First Semester				C	L	CR
DRR	117	Blueprint Reading for Construction Trades		2	2	3
ENG	111	English Composition		3	0	3
> WTT	103	Introduction to Water Treatment Technology		3	0	3
> WTT	111	Water Treatment I		2	2	3
> WTT	113	Water Plant Operation		2	2	3
				12	6	15
Second Semester						
CHM	201	Applied Sciences		2	2	3
MAT	121	Technical Mathematics		4	0	4
> WTT	120	Treatment Plant Safety		3	0	3
> WTT	201	Water Distribution Systems		2	2	3
> WTT	211	Water Treatment II		3	2	4
				14	6	17
Third Semester						
> ELS	119	Introduction to Electronic Systems		1	2	2
PHY	150	Physics		3	2	4
> WTT	121	Wastewater Treatment I		2	2	3
> WTT	205	Wastewater Collection Systems		2	2	3
		Social Science Elective		3	0	3
				11	8	15
Fourth Semester						
COM	221	Technical Communications		3	0	3
> INS	110	Instrumentation & Process Controls		2	2	3
> WTT	124	Wastewater Plant Operation		3	0	3
> WTT	221	Wastewater Treatment II		3	2	4
		Humanities Elective		3	0	3
				14	4	16
Total Required				63		

Learning Outcomes

- Describe the various processes used within the water treatment and wastewater treatment Industry.
- Perform wastewater collection system and water distribution systems inspections.
- Utilize and maintain process documentation in the operation of water and wastewater system.
- Understand the water treatment unit processes including coagulation and flocculation, sedimentation, filtration, and disinfection.
- Understand the wastewater treatment unit processes including preliminary, primary, secondary and tertiary treatment.
- Gain fundamental knowledge of various pumps, valves, flow meters and process analyzers used in the water and wastewater industry.
- Perform various laboratory analyses in the water and wastewater facilities.
- Become eligible for the water treatment, water distribution, wastewater treatment, and collection systems operator certification exams.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

WATER TREATMENT TECHNOLOGY

(Continued from previous page)

DRINKING WATER Certificate Program

First Semester				C	L	CR
DRR	117	Blueprint Reading for Construction Trades		2	2	3
ENG	111	English Composition		3	0	3
> WTT	103	Introduction to Water Treatment Technology		3	0	3
> WTT	111	Water Treatment I		2	2	3
> WTT	113	Water Plant Operation		2	0	3
				12	4	15

Second Semester						
MAT	121	Technical Mathematics		4	0	4
> WTT	120	Treatment Plant Safety		3	0	3
> WTT	201	Water Distribution Systems		2	2	3
> WTT	211	Water Treatment II		3	2	4
				12	4	14

Total Required **29**

WASTEWATER Certificate Program

First Semester						
> ELS	119	Introduction to Electronic Systems		1	2	2
ENG	111	English Composition		3	0	3
> WTT	103	Introduction to Water Treatment Technology		3	0	3
> WTT	121	Wastewater Treatment I		2	2	3
> WTT	205	Wastewater Collection Systems		2	2	3
				11	6	14

Second Semester						
> INS	110	Instrumentation & Process Controls		2	2	3
MAT	121	Technical Mathematics		4	0	4
> WTT	120	Treatment Plant Safety		3	0	3
> WTT	124	Wastewater Plant Operation		3	0	3
> WTT	221	Wastewater Treatment II		3	2	4
				15	4	17

Total Required **31**

Learning Outcomes

- Describe the various processes used within the water treatment.
- Perform water distribution systems inspections.
- Utilize and maintain process documentation in the operation of water systems.
- Understand the water treatment unit processes including coagulation and flocculation, sedimentation, filtration, and disinfection.
- Gain fundamental knowledge of various pumps, valves, flow meters and process analyzers used in the water industry.
- Perform various laboratory analyses in the water facilities.
- Become eligible for the water treatment and water distribution exams.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory

WIND POWER TECHNOLOGY

Certificate Program

First Semester				C	L	CR
>	ELS	115	Basic Electricity / Electronics	3	0	3
>	ELS	116	Basic Electricity / Electronics Lab	0	6	2
	MAT	121	Technical Mathematics	4	0	4
>	WPT	110	Safety Fundamentals for Wind Technicians	2	3	3
>	WPT	114	Introduction to Wind Power Industry	2	3	3
>	WPT	119	Wind Turbine Drive Systems	2	3	3
				13	15	18

Second Semester				C	L	CR
>	ELS	124	Industrial Electronics	2	3	3
>	ELS	125	Motors and Controls	2	3	3
	ENG	111	English Composition	3	0	3
>	WPT	213	Wind Power Control Systems	2	3	3
>	WPT	214	Wind Power Delivery Systems	2	3	3
>	WPT	215	Troubleshooting Automated Systems	2	3	3
				13	15	18

Total Required	35
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Learning Outcomes

- Function successfully as technicians on wind farms and/or in other power production settings.
- Demonstrate a basic understanding of wind energy systems and terminology used within the power industry.
- Demonstrate an understanding of how power generation equipment functions.
- Demonstrate an understanding of troubleshooting techniques utilizing resources available with technical materials and site system information.
- Demonstrate the skills necessary to troubleshoot and repair equipment utilized on a wind farm or other industrial setting.
- Demonstrate skills necessary to use manual and power tools utilized in an industrial setting.
- Demonstrate skills necessary to select and safely use diagnostic test equipment.
- Demonstrate safety concepts used with electrical generation systems, high angle work areas, and rescue with respect to federal regulations and national standards.

> Major courses; a minimum grade of "C" or 2.0 is required

Key: C= Class Hours, CR= Credit Hours, L=Laboratory



Course Descriptions

ACC 110 **College Accounting**
3 credits / 3 class hrs

Designed to meet the needs of students who are not accounting majors. Emphasis is on manually applying the process of the accounting cycle. Students will be required to journalize, post, adjust and close for an accounting cycle; prepare payroll and payroll tax records; and prepare financial statements. Service sole-ownership businesses are presented. Students are introduced to computerized accounting procedures after they become proficient with the manual process. This course cannot be used for credit by accounting and business administration majors.

ACC 112 **Computerized Accounting**
3 credits / 3 class hrs

This online course covers small business accounting using a computerized accounting software. Topics include creating a chart of accounts, recording customer and vendor transactions, processing payroll, and printing reports. In addition, setting up a new company is covered, as well as advanced topics such as exporting to spreadsheet software and using the audit trail of the computerized accounting software. Practical application will be by using a computerized homework system and a comprehensive problem. Pre-requisite: ACC 110, ACC 114; or permission of instructor.

ACC 113 **Payroll Accounting**
3 credits / 3 class hrs

This online course studies federal and state employment laws and their effects on personnel and payroll records with a full explanation of the subject matter using a building block approach to guide the student from the basic principles through the complex applications of payroll. This course is intended to give students a practical working knowledge of the current payroll laws and actual experience in applying regulations. Students are also exposed to computerized payroll procedures. Practical application will be by using a computerized homework system and a comprehensive problem. Pre-requisite: ACC 110, ACC 114 or permission of instructor.

ACC 114 **Principles of Accounting I**
3 credits / 3 class hrs

This introductory course covers the fundamental principles of accounting as related to a service and/or merchandising sole proprietorship. Emphasis is on developing technical procedures of the accounting cycle including journalizing, posting, adjusting entries, closing books and preparing financial statements. This course exposes the student to specific areas of deferrals and accruals, inventories, payrolls, receivables, payables, and accounting systems. Practical application will be by using a computerized homework system and a comprehensive problem.

ACC 120 **Principles of Accounting II**
3 credits / 3 class hrs

The first part of the course continues to address topics in financial accounting that began in ACC 114 including the use of GAAP (Generally Accepted Accounting Principles). The remaining emphasis

is on the corporate form of ownership. Topics include accounting for bonds, investments in stocks and bonds, business combinations and the statement of cash flows. Practical application will be by using a computerized homework system and a comprehensive problem. Pre-requisite: ACC 114

ACC 124 **Managerial Accounting**
3 credits / 3 class hrs

This course introduces a business-management approach to the development and use of accounting information to support managerial decision-making in both manufacturing and service organizations. Major topics include cost behavior, cost analysis, pricing, profit planning, control measures and the statement of cash flows. Cost-volume-profit relationships will be analyzed to make management decisions. Students will make use of standard costs to measure operating performance and profitability. Responsibility accounting, capital budgeting decisions and ethical challenges in managerial accounting are also covered. Practical application will be by using a computerized homework system. Pre-requisite: ACC 114

ACC 210 **Intermediate Accounting I**
3 credits / 3 class hrs

This is the first semester of a two-semester course designed to give the student an in-depth overview of Generally Accepted Accounting Principles and financial reporting. Topics include preparation of the balance sheet, income statement, and statement of cash flows; inventory costing; accounts and notes receivables; the allowance method of accounting for bad debts; plant and equipment; investments; and other issues. Practical application will be by using a computerized homework system and case studies. Pre-requisite: ACC 120

ACC 214 **Federal Taxation I**
3 credits / 3 class hrs

A study of the basic theory of the federal income tax law as it affects individuals and business. Among the topics examined are the computation of gross income, exclusions, capital gains, and losses, property transactions, and various business and personal deductions. Pre-requisite: ACC 120 or ACC 124

ACC 220 **Intermediate Accounting II**
3 credits / 3 class hrs

Continuation of ACC 210. This is the second semester of a two-semester course designed to give the student an in-depth overview of Generally Accepted Accounting Principles and financial reporting of corporate structured businesses. Emphasis is placed on special problems which may include debt and equity financing, leases, investments, capitalizing interest, and employee compensation. Other dimensions of financial reporting such as earnings per share, accounting changes and error corrections, are also covered. Practical application will be by using a computerized homework system and case studies. Pre-requisite: ACC 210

This course consists of the study of fund accounting and the financial statements of state and local governments, hospitals, universities, and other nonprofit entities. General financial principles and fund accounting principles are compared. Specific topics covered include budgets for operations, capital improvements, general funds, revenue funds, debt service funds, trust and agency funds, and proprietary funds. Pre-requisite: ACC 120

A study of the current tax code as it relates to corporations, partnerships, estates and trusts, along with other selected topics related to taxation of the business entity. Also covered are estate and gift transfer taxes, with time devoted to family tax planning.
Pre-requisite: ACC 214

This course covers the conceptual framework to emphasize the professional and legal responsibility of accountants, auditors, and management for the design, operation, and control of AIS (Accounting Information System) applications. It covers the functions of an accounting information system within an organization and examines topics in internal controls and system documentation. The course includes a commercial software package and a text that leads students through the various components of the AIS structure using the software integrated with accounting projects. Practical application will be by using a computerized homework system.

Pre-requisite: ACC 114

Covers shop safety and regulations as they pertain to the collision repair industry. Theory and hands-on experience with the removal, replacement and service of complete interior, glass (moveable and stationary), exterior trim and components are applied. Proper metalworking, straightening techniques, plastic and composite repair and pre-paint preparation are also covered.

Covers intermediate body repairs with measuring systems used. Hydraulic equipment is introduced with hands-on training in structural alignment of the vehicle body. Frame measurement and repair on uni-body and full frame vehicles is covered along with proper sectioning techniques. Pre-requisite: ACR 111

Provides instruction and hands-on training in the blueprinting and

Covers all aspects of the refinishing industry, from safety to the final detailing of the vehicle. Students will also learn color matching procedures using the latest technology and hands-on techniques. Emphasis is placed on base coat/clear coat, tri-coat and waterborne paint products. Pre-requisite: ACR 121

Course focuses on fundamental techniques of using the airbrush for purposes such as custom painting graphics and murals. Hand lettering and pin striping techniques are demonstrated with students gaining hands-on experience. Pre-requisite: ACR 211 or instructor's permission

Covers the repair of major collision damage, including straightening frames, uni-body construction, replacing major body sections, aligning, reshaping and finishing of major damaged areas. Front end alignment theory, suspension and steering, power train, electrical, and restraint systems are also covered. Pre-requisite: ACR 211

Introduces students to the various roles of the healthcare provider and their professions. In addition to providing an overview of healthcare career choices, this class will present topics that will assist all students in being successful. It introduces common topics encountered by healthcare professionals including medical legal issues, medical asepsis, communication, knowledge of healthcare across the lifespan and professional behavior.

In the past several years, regulatory agencies have significantly increased the life and environmental safety requirements for health care agencies. Emphasis on the increases in healthcare provider injuries, the spread of communicable diseases, and the protection of patient health information have resulted in the need for extensive orientation programs for staff and students employed or completing clinical experiences in these settings. This course is designed to meet these regulatory requirements.

This study introduces students to essential medical terminology analysis through knowledge of prefixes, suffixes, and root words.

The study also includes vocabulary that cannot be analyzed, verbal pronunciation, medical abbreviations, spelling and medical vignettes.

ART 201 **Introduction to Film**
3 credits / 3 class hrs

This course is an introduction to the study and analysis of film as an art form. Students will view, discuss, and interpret movies from a variety of historical and cultural contexts.

AUT 109 **Introduction to Auto Technology**
1 credit / .5 class hrs / 1.5 lab hrs

This is an entry level class designed to introduce students to the automotive field and the advances in technology. Students will start with the history of the automobile, then learn about the employment opportunities in the automotive field and what it takes to become an ASE master technician. Students will have the opportunity to learn about shop safety and the types of tools they will be using and how to use them before going into the shop to start the basic repairs of an automobile such as changing oil, rotating tires and inspecting the vehicle for safe driving. This course meets for 3 weeks.

AUT 114 **Suspension & Steering**
3 credits / 1.5 class hrs / 4.5 lab hrs

Exposes students to the underside of cars and light trucks. Suspension systems: Theory and operation of tires, tire pressure monitoring systems, tire changing, wheel balancing, suspension systems (conventional and McPherson strut) will be discussed in detail. Diagnosis and repair of these systems will also be covered. Steering systems: Theory and operation of conventional and rack and pinion steering systems will be covered, along with how to properly diagnose and repair these systems. Wheel alignment; theory of front-end geometry including purpose of caster, camber, steering axis inclination, scrub radius, turning radius and toe-in, toe-out will be discussed in detail; techniques of performing thrust angles and four wheel alignments; actual alignments will be done on operational vehicles. Pre-requisite: AUT 109 or instructor's permission

AUT 115 **Automotive Electricity**
3 credits / 2 class hrs / 2 lab hrs

This course provides students with information in vehicle electricity, which will develop an understanding in vehicle electrical systems. Throughout the course, students will learn the basic concepts of electricity as they apply to vehicle service and repair using a series of trainer activities. Theory of electricity covered will include volts, ohms, amps, and the proper use of a digital multi-meter and other electrical diagnostic tools and equipment. Students will also learn to understand the flow of electricity in multiple types of electrical circuits. Students will apply information covered and show their understanding by completing job sheets/worksheets, on-trainer activities, on-trainer troubleshooting techniques and vehicle application, which will reinforce vehicle electrical theory. The understanding of voltage drops in circuits will be discussed and

the voltage drop test will be performed with activities, along with electrical schematic reading and techniques in troubleshooting electrical circuit faults.

AUT 116 **Brakes**
3 credits / 1.5 class hrs / 4.5 lab hrs

Exposes students to the automotive brake system and covers in detail the theory, operation, diagnosis, and repair of these systems. Students will have the opportunity to learn about drum brakes, disc brakes, and combinations of the two, along with parking brake systems and power assist. Principles of hydraulics will be discussed as it pertains to the brake system. The various switches, valves and electronic components related to the standard brake system and anti-lock brake system will be discussed and diagnosed. Pre-requisite: AUT 114 or instructor's permission

AUT 124 **Engine Repair**
6 credit / 3 class hrs / 9 lab hrs

Theory and operation of the four-stroke engine will be discussed along with diagnosis of engine problems. Disassembly and care of reusable parts, cleaning and storage of engine parts, measurements of wear, replacement of parts and adjustments of parts, lubrication and lubricating clearances, temperature effects and cooling systems, cylinder heads, valves, replacing and/or reconditioning cylinders, pistons, rings, cam shafts and hydraulic lifters. Live work is done when available. Pre-requisite: AUT 116 or instructor's permission

AUT 125 **Automotive Electronics**
3 credits / 2 class hrs / 2 lab hrs

A continuation of AUT 115, this course covers electrical/electronic systems. Electronics theory is covered giving students an understanding of electronic solid-state components and systems, which will include charging systems, starting systems, ignition systems, anti-lock brakes, supplemental restraint systems and computer controls. Activities completed in this course allow students to learn and understand the concepts of electronics as they apply to vehicle electronic systems and proper diagnosing and repairing of these systems. These activities will include an introduction to electronics covering diodes, transistors, capacitors and how these semi-conductor components are used in electronic systems. Electronic system diagnostics will include the importance of using a digital multimeter and logic probe to prevent meter loading in electronic circuits. Laptop/tablet-based scan tools, graphing meters, oscilloscopes and other electronic diagnostic equipment will be used to understand and diagnose electronic systems during lab activities. Prerequisite: AUT 115 or instructor's permission

AUT 214 **Engine Performance**
6 credits / 3 class hrs / 9 lab hrs

Covers the theory and operation of OBD II (On-Board Diagnostics Generation Two) and CAN (Controller Area Network) systems. The complete fuel and emission systems are covered in detail from fuel tank cap to combustion chamber of the engine. Emphasis is placed on fuel injection, ignition and emission control as it pertains to the

AUT 216 **Motor Vehicle Inspection Regulations**
2 credits / 2 class hrs

AUT 223 **Manual Drive Train & Axles**
3 credits / 1.5 class hrs / 4.5 lab hrs

AUT 225 **Automatic Transmissions**
3 credits / 1.5 class hrs / 4.5 lab hrs

AUT 228 **Alternative Propulsion Systems**
3 credits / 2 class hrs / 2 lab hrs

AUT 229 Automotive Heating & Air Conditioning
3 credits / 2 class hrs / 2 lab hrs

AUT 231 **Innovative Automotive Technologies**
3 credits / 2 class hrs / 2 lab hrs

AUT 233 **Light Vehicle Diesel Systems**
3 credits / 2 class hrs / 2 lab hrs

information in pinpointing system concerns. The student will at times use original equipment manufacturer (OEM) information to diagnose and repair vehicles when other sources of information are not available. The course will also emphasize the safety of working on diesel engines and related systems. The student will learn and understand the proper techniques on safely depressurizing fuel systems and powering down related systems prior to performing any service work and using proper tools and personal protective equipment. After successful completion of this course, students will have a greater knowledge of light duty diesel technologies found on vehicles today and future makes and models. Pre-requisites: AUT 124 and AUT 125 or instructor's permission

BCT 111 **Framing Systems**
6 credits / 3 class hrs / 9 lab hrs

The focus of the course is on the safe practice and use of hand and power tools needed during building construction. Students will learn floor, wall and roof framing skills. There is an emphasis on various on-center layouts and the mathematics and use of the framing square. There is also an introduction to finishing techniques with pine. Students will compute material lists from sketches, floor plans and scaled drawings.

BCT 121 **Interior Materials & Methods**
6 credits / 3 class hrs / 9 lab hrs

This course continues the practice and use of hand and power tools needed during building construction. Students will expand the study and practice of floor, wall and roof framing techniques with an introduction to roof venting. Students may work with electrical and plumbing personnel while building and insulating exterior and interior walls, floors and roof structures. Students will install various rigid and fiberglass insulation with the understanding of air quality and moisture effects. Students will install gypsum board and practice dry wall finishing procedures. Student will install asphalt shingles and clad eave and rake fascias with aluminum coil stock. Pre-requisite: BCT 111

BCT 125 **Woodworking**
3 Credits / 1.5 class hrs / 4.5 lab hrs

Students will learn woodworking skills through lecture, demonstration and practical application. A series of projects of increasing complexity and detail will be completed. The techniques required to cut and process panels and solid stock, produce accurate joinery, assemble finished projects, and the skills required to do so in an efficient and cost-effective manner will be covered. Projects will be on an individual team basis. Prerequisite: BCT111 or instructor's permission

BIO 114 **Human Biology with Lab**
4 credits / 3 class hrs / 2 lab hrs

Introduces the anatomy and physiology of the human body. All systems of the body are covered, and each system also has a chemistry component relating to its function. Detailed scientific data and terminology are not used, so that a concept approach can be

used to learn about the human body. Recommended for students in early childhood education or liberal studies, as well as for those preparing for a medical career but lacking a biology and/or chemistry background.

BIO 115 **General Biology**
4 credits / 3 lecture / 2 lab hrs

This course explores the core concepts of biological science including cellular structure and function, energy production, genetics, evolution, nutrition, and ecology. We will also explore key concepts of the physical sciences (physics and chemistry) and how they impact biological processes.

BIO 201 **Anatomy & Physiology I with Lab**
4 credits / 3 class hrs / 2 lab hrs

This course is designed for first year students preparing for a career in the medical field. The sequence of topics in the first semester will be as follows: Introduction, Structure levels and Anatomical Positions and Cavities. This will be followed in a topical manner by the skeletal, muscular, and nervous systems. The intent of this approach is to allow the student to develop a concise understanding of how each system of the body functions and interacts. Labs are designed to supplement the lecture portion of Anatomy and Physiology. The concepts covered in the lecture course are explored in greater detail using a variety of aids.

BIO 211 **Anatomy & Physiology II with Lab**
4 credits / 3 class hrs / 2 lab hrs

This course is designed for first year students preparing for a career in the medical field. The sequence of topics in the second semester will be as follows: Sensory, Circulatory, Urinary, Lymphatic, Digestive, Endocrine, Reproduction Systems, and Fluids, Electrolytes and Acid-Base Control. The intent of this approach is to allow the student to develop a concise understanding of how each system of the body functions and interacts. Labs are designed to supplement the lecture course. They will be performed online using simulation software. The general format of the course will follow the lecture. Pre-requisite: BIO 201

BIO 218 **Microbiology Lecture with Lab**
4 credits / 3 class hrs / 2 lab hrs

This course is a basic introduction to the science of microbiology. The student should develop a broad understanding of both theoretical and laboratory aspects of the science. Specific topics to be covered include general characteristics of bacteria, viruses, protozoa, and fungi; disease transmission; immunology; epidemiology; and microbial control. The student will have the opportunity to practice techniques for specimen collection, culturing, staining, and microscopic observation of representative species. Pre-requisite: BIO 211

BTE 251 **Business Internship**
1 credits

Provides the student with on-the-job training at an approved worksite in an occupational field directly related to the student's major. At least 45 clock hours must be completed for 1 credit. To qualify for an internship, a student in an associate degree program must have completed 30 credits of course work, have attained a 2.5 GPA, and be recommended by the department chair and course instructor. Before registering for this course, students must meet with the course instructor to determine internship site and process paperwork.

BTE 252 **Business Internship**
2 credits

Provides the student with on-the-job training at an approved worksite in an occupational field directly related to the student's major. At least 90 clock hours must be completed for 2 credits. To qualify for an internship, a student in an associate degree program must have completed 30 credits of course work, have attained a 2.5 GPA, and be recommended by the department chair and course instructor. Before registering for this course, students must meet with the course instructor to determine internship site and process paperwork.

BTE 253 **Business Internship**
3 credits

Provides the student with on-the-job training at an approved worksite in an occupational field directly related to the student's major. At least 135 clock hours must be completed for 3 credits. To qualify for an internship, a student in an associate degree program must have completed 30 credits of course work, have attained a 2.5 GPA, and must be recommended by the department chair and course instructor. Before registering for this course, students must meet with the course instructor to determine internship site and process paperwork.

BUS 101 **Introduction to Business**
3 credits / 3 class hrs

Introduces students to the environment in which business is transacted by presenting an overview of functional areas of business and the basic concepts of the business world.

BUS 106 **Effective Customer Service**
3 credits / 3 class hrs

A loyal customer base is one of an organization's most important assets. This course covers the concepts and skills needed for success in business careers. Emphasis is given to dealing with customer service problems and how to handle conflicts and stress.

BUS 109 **Entrepreneurship**
3 credits / 3 class hrs

Covers the essentials of how to start and operate a small business. Students create customized business plan content while examining

entrepreneurial opportunities, financing, marketing, selling and customer service, cash flow, managing employees, and growing a business. Recommended for all students who aspire to business ownership and management.

BUS 113 **Sales Fundamentals**
3 credits / 3 class hrs

Assists students to analyze the importance of personal preparation for selling effectively, by understanding of self, the product or service, and the customer.

BUS 114 **Personal Finance**
3 credits / 3 class hrs

Designed to help individuals analyze and direct their own financial affairs. Students will practice and apply skills to begin a lifelong journey of personal financial planning. This course will provide strategies for managing personal financial resources, buying decisions, insurance, investing, and retirement planning. Open to all students.

BUS 117 **Business Law I**
3 credits / 3 class hrs

Provides a background in the sources of American law and the global legal environment. Provides a basic knowledge of courts and procedures, ethics, torts and crimes, contracts, property and its protection, and debtor-creditor relationship.

BUS 119 **Legal Environment of Business**
3 credits / 3 class hrs

A survey of the law applicable to business and its environment. The course will help students gain a greater understanding of the standards and methods of reasoning that are used to answer questions about the legal environment in which businesses function. It also covers the legal issues that commonly confront businesses and the way in which our legal system is organized and operates.

BUS 150 **Special Topics in Business Technology**
3 credits / 3 class hrs

This survey course is intended to provide the opportunity to offer courses of variable content on emerging issues or technology of special interest to the college community that would not normally be part of the NMCC curriculum. Topics and content will vary from semester to semester. This course will increase the awareness of current issues and technology surrounding the student.

BUS 201 **Leadership**
3 credits / 3 class hrs

Designed to expose senior level students to areas of competence and knowledge that are fundamental to the practice of leadership in a variety of business and life settings. Students will examine the prominent leadership theories, acquire skills common to successful leaders, and listen to opinions of leaders of our own community from business, government, and social service organizations.

Course requires significant written and oral communication, project management and critical thinking skills.

BUS 210 **Principles of Insurance**
3 credits / 3 class hrs

Covers basic ideas, problems and principles found in all types of modern insurance and other methods of handling risk. Personal and business risk management will be included.

BUS 214 **Project Management**
3 credits / 3 class hrs

Topics include project management life cycle and process; identifying and selecting projects; developing a project proposal; techniques for planning, scheduling, resource assignment, budgeting and controlling project performance; project risks; project manager responsibilities and skills; project team development and effectiveness; project communication and documentation; and project management organizational structures. The concepts in the course support the project management knowledge areas of the Project Management Institute's A Guide to the Project Management Body of Knowledge (PMBOK® Guide)

BUS 215 **Business Ethics**
3 credits / 3 class hrs

Introduces contemporary and controversial ethical issues that face the business community. Case studies are utilized to study the competing values and interests involved in ethical situations. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.

BUS 217 **E-Commerce**
3 credits / 3 class hrs

This course explores the opportunities and challenges associated with electronic commerce and the internet. Students will learn the key business strategies and technological elements of electronic commerce essential to succeeding in today's internet-based economy.

BUS 229 **Principles of Management**
3 credits / 3 class hrs

Enlivens management principles through its emphasis of real-world management practices. The experiences of people and businesses used in class illustrate the relevance of each theoretical management concept and how those concepts apply to actual business situations. Due to constantly changing management practices, leadership and change management concepts are integrated in the issues and applications throughout the course.

BUS 233 **Supervisory Management**
3 credits / 3 class hrs

Designed to provide theoretical and practical knowledge of the management process in a variety of organizational settings. Covers

basics of management relationships, individual motivation and behavior in business, and development of skills for daily supervision. This course involves a high level of team work and interaction among students.

BUS 239 **Human Resource Management**
3 credits / 3 class hrs

An organization's human resources management function focuses on its people. It includes practices that help the organization deal most effectively with all people in the pre-selection, selection and post-selection phases of the employment cycle. This course covers human resource management trends and changes, equal employment opportunity/affirmative action, job analysis, recruiting, testing, selection, training, performance appraisal, compensation/benefits, labor relations, discipline, workplace health and safety, ethical dilemmas, and cultural diversity.

BUS 241 **Principles of Marketing**
3 credits / 3 class hrs

Designed for the student planning to take only one marketing course. Provides an overview of the marketing skills and techniques used in product planning and promotion. Explores the strategy behind and implementation of a marketing plan, while covering consumer behavior, product life cycle, marketing communications, and pricing tactics.

BUS 242 **Small Business Management**
3 credits / 3 class hrs

Covers the concepts of starting and operating a small business. The application of marketing, accounting, human resources management and general management courses is essential for the completion of the required business plan.

BUS 250 **Advanced Seminar in Business Technology**
3 credits / 3 class hrs

This in-depth course is intended to provide the opportunity to offer courses of variable content on emerging issues or technology of special interest to the college community that would not normally be part of the NMCC curriculum. As such, the topics and content will vary from semester to semester. This course will increase the awareness of the most current issues and technology surrounding the student. Pre-requisite: permission from the instructor.

CHM 201 **Applied Sciences**
3 credits / 2 class hrs / 2 lab hrs

This course is intended to serve as a broad introduction to a variety of chemistry concepts for students who have never taken a chemistry course before or have limited knowledge of the study of chemistry. While it has heavy emphasis on application of these concepts with respect to water and water treatment, students who complete this course will find it useful in any science field, health care field, or related skills/trade subject. Topics include: scientific

CIS 105 **Introduction to PC Operating Systems**
1 credit / 1 class hr

CIS 108 **Spreadsheet Applications for Business**
3 credits / 3 class hrs

CIS 112 **Fundamentals of Computer Concepts**
3 credits / 2 class hrs / 2 lab hrs

CIS 113 **Introduction to Microcomputer Applications**
3 credits / 3 class hrs

CIS 118

Office Computer Applications
3 credits / 3 class hrs

CIS 129

Database Applications for Business

3 credits / 3 class hrs

CIS 220 **Web Development & Publications**
3 credits / 3 class hrs

COE 112 Introduction to Linux
3 credits / 2 class hrs / 2 lab hrs

COE 113 **Operating Systems**
3 credits / 2 class hrs / 2 lab hrs

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manage Windows 10 mobile and desktop devices. The text includes a section devoted to troubleshooting and doubles as a manual that professionals can take on the job.

COE 116 **A+ Certification Preparation**
3 credits / 2 class hrs / 2 lab hrs

Principles of computer servicing including system configuration, memory interfacing, CPU and support circuits, keyboards, hard drives - SATA - SCSI - IDE, floppy drives and modems. Troubleshooting and maintenance of peripherals such as monitors, multimedia, and drives. Considerable hands-on time is spent gaining troubleshooting skills using test equipment and software diagnostics. Co-requisite: COE 118

COE 118 **A+ Certification Preparation Lab**
3 credits / 9 lab hrs

This course is the laboratory component of COE 116 A+ Cert Prep. Co-requisite: COE 116

COE 125 **Computer Networking Hardware**
3 credits / 2 class hrs / 2 lab hrs

Provides the student with basic knowledge and skills needed to install and maintain a network. The course prepares students to become Network+ certified. Network+ is a leading vendor-neutral certification in the computer industry for network technicians. The course covers network security, installing operating systems (Windows 2008 Server and Windows 7); installing network interface cards; cabling; peer-to-peer networks; client/server networks; configuring TCP/IP, DHCP, TCP/IP utilities; 100BaseT; wireless technology; star, ring, bus topologies; monitoring network traffic; protocols and the OSI model; accessing the Internet; measuring server performance; analyzing network traffic; and maintaining and supporting the network.

COE 128 **Advanced Operating Systems**
3 credits / 2 class hrs / 2 lab hrs

Helps prepare students for the second of two exams required for Microsoft Certified Solutions Associate (MCSA): Windows 8.1 certification. Students master configuration or support for Windows 8.1 computers, devices, users and associated network and security resources. Those in this IT Professional career field work with networks configured as a domain-based or peer-to-peer environment with access to the internet and cloud services. These IT Professionals could be consultants, full-time desktop support technicians, or IT generalists who administer Windows 8.1 based computers and devices as a portion of their broader technical responsibilities. Additional skills addressed, including the recent 8.1 objectives: Design an Installation and Application Strategy, Maintain Resource Access, Maintain Windows Clients and Devices and Manage Windows 8 Using Cloud Services and Microsoft Desktop Optimization Pack.

COE 217 **Installing & Configuring Servers**
4 credits / 2 class hrs / 4 lab hrs

This course gives you in-depth coverage of the 70-740 certification

exam objectives and focuses on the skills you need to install and configure Windows Server 2016. After you finish this course, you'll have an in-depth knowledge of Windows Server 2016, including installation, file and storage services, virtualization, Windows containers, and Nano Server, among many other topics.

COE 218 **Network Administration**

4 credits / 2 class hrs / 3 lab hrs

This course gives you in-depth coverage of the 70-741 certification exam objectives and focuses on the skills you need to configure networking with Windows Server 2016. After you finish this course, you'll have an in-depth knowledge of Windows Server 2016 networking services, including TCP/IP, DNS, DHCP, IPAM, remote access, and advanced networking solutions.

COE 219 **Electronics for Computer Technicians**

3 credits / 2 class hrs / 3 lab hrs

The Electronics for Computer Techs course prepares students to solve electronic problems involving current, voltage, resistance and power. Students will be able to explain the relationship between current, voltage, resistance and power. Students will be able to discuss the relationship between electricity and magnetism. Students will construct DC circuits, using a schematic diagram as a guide, with components such as resistors, relays, switches, lamps, batteries and capacitors. Students will use multi-meters, power supplies and electronic trainers throughout the course.

COE 220 **Introduction to Computer Forensics**

3 credits / 2 class hrs / 2 lab hrs

This course focuses on the use of the most popular forensics tools and provides specific guidance on dealing with civil and criminal matters relating to the law and technology. Includes discussions on how to manage a digital forensics operation in today's business environment. In addition, this book also covers such valuable skills as: Data Acquisition, Processing Crime and Incident Scenes, Working with Windows and CLI Systems, Current Computer Forensics Tools, Macintosh and Linux Boot Processes and File Systems, Recovering Graphics Files.

COE 227 **Configuring Advanced Windows Server**

4 credits / 2 class hrs / 4 lab hrs

Configuring Advanced Windows Server 2012 covers the third of three exams required for Microsoft Certified Solutions Associate (MCSA): Windows Server 2012 certification. This course will help validate the skills and knowledge necessary to administer a Windows Server 2012 Infrastructure in an enterprise environment. The three MCSA exams collectively validate the skills and knowledge necessary for implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment. This Microsoft Official Academic Course is mapped to the 70-412

Configuring Advanced Windows Server 2012 Services exam skills, including the recent R2 objectives. This course focuses on real skills for real jobs and prepares students to provide mastery of Advanced Windows Server 2012 Services such as advanced configuring tasks necessary to deploy, manage and maintain a Windows Server 2012 infrastructure. It covers such skills as fault tolerance, certificate services and identity federation. In addition, this course also covers such valuable skills as: Implementing Advanced Network Services, Implementing Advanced File Services, Implementing Dynamic Access Control, Implementing Network Load Balancing and Implementing Failover Clustering.

COE 228 **Security+ Certification**
3 credits / 2 class hrs / 2 lab hrs

This course offers a comprehensive guide for anyone wishing to take the CompTIA Security+ SY0-501 Certification Exam. It provides an introduction to the fundamentals of network security, including compliance and operational security; threats and vulnerabilities; application, data, and host security; access control and identity management; and cryptography. The course covers new topics in network security as well, including psychological approaches to social engineering attacks, Web application attacks, penetration testing, data loss prevention, cloud computing security, and application programming development security.

COE 229 **Ethical Hacking**
3 credits / 2 class hrs / 2 lab hrs

This course provides an in-depth understanding of how to effectively protect computer networks. Students will learn the tools and penetration testing methodologies used by ethical hackers. In addition, the course provides a thorough discussion of what and who an ethical hacker is and how important they are in protecting corporate and government data from cyber attacks. Students will learn updated computer security resources that describe new vulnerabilities and innovative methods to protect networks. Also covered is a thorough update of federal and state computer crime laws, as well as changes in penalties for illegal computer hacking. Pre-requisites: COE 125 and COE 228

COL 103 **College Success**
1 credit / 1 class hr

College Success is designed to help students feel comfortable with the experience of being a college student. As a class, we will examine the academic culture of college and look at ways to be successful at NMCC. Through interactive exercises and assignments, the class will discuss a variety of topics including the transition to college life, goal setting, study skills, time management, campus resources, and information literacy. The ultimate purpose of the course is to provide an opportunity for students to learn and adopt strategies to be successful in college and beyond. Students who have successfully completed at least 15 hours with a GPA of 2.0 are exempt from this requirement.

COM 111 **Speech**
3 credits / 3 class hrs

This is an oral communication course that offers experience in selection and organization of speech content, audience analysis and delivery. Classroom experience emphasizes preparation and delivery of informative, persuasive, short speeches plus other types of oral presentations.

COM 212 **Business Communications**
3 credits / 3 class hrs

Focuses on principles of nonacademic spoken and written expression that will help the student succeed in a business occupation. Concentrates on the practical written and oral applications of communication theory in the forms of business correspondence, memoranda, employment related documents and oral presentations. The class also includes technological applications and ethical and cross-cultural considerations in business communication practices. Other interpersonal communication topics that may be discussed are nonverbal communication, listening skills, telephone skills and business etiquette. Pre-requisite: ENG 111

COM 221 **Technical Communications**
3 credits / 3 class hrs

Technical Communications was designed to strengthen students' oral and written communication skills by focusing on elements of technical writing and business correspondence. Emphasis is given to utilizing visual aids effectively, writing several types of job-related reports, and giving oral presentations. Pre-requisite: ENG 111

DIB 113 **Introduction to Digital Systems**
3 credits / 2 class hrs / 2 lab hrs

Virtually all electronic and electrical systems today use digital techniques to accomplish their functions. After completing this course, students will be familiar with a wide range of integrated circuits, their uses and characteristics. Students will have a working knowledge of semiconductor devices, logic circuits, memory devices, data conversion, and digital troubleshooting. The course concludes with a design project which incorporates circuitry studied throughout the course. Pre-requisites: ELS 115 and ELS 116

DIM 112 **Introduction to Diesel Hydraulics Technology**
3 credits / 3 class hrs / 9 lab hrs

Introduces the diesel technician to the field and shop operating procedures and preventive maintenance programs. Covered in detail are: preventative maintenance for trucks and equipment used in the transportation industry; personal, work and tool safety; laws regulating hazardous material; and shop record keeping requirements of the federal motor vehicle safety standards. Performing a preventative maintenance inspection will be practiced during an overview of the various P.M.I. areas. This course meets for 8 weeks.

Engine Diagnosis & Tune-up
3 credits / 3 class hrs / 9 lab hrs

Diagnosis and service of diesel engines to include details of construction, theory of operating of two and four cycle engines, plus failure analysis. Disassembly and rebuilding for service and study of engine components is done on mechanical and electronic controlled engines. Engine tune-up, valve settings injector timing, and dynamic /static timing will be practiced for competency and accuracy. Pre-requisite: DIM 112. This course meets for 8 weeks.

DIM 122 **Electrical Systems - Heavy Equipment**
3 credits / 3 class hrs / 9 lab hrs

Emphasizes the practical aspects of a charging system, starting system, lighting and accessory components, as well as the proper use of the test equipment needed. Reading wiring diagrams and schematics and following circuits through each is practiced. Introduction into the electronic controls of diesel engines is covered extensively with hands-on training. Pre-requisites: AUT 115 and DIM 114. This course meets for 8 weeks.

DIM 123 **Brake Systems**
1.5 credits / 3 class hrs / 9 lab hrs

Truck air brake systems are explained in detail throughout this course. Air brake operation, system components and the Federal Motor Vehicle Safety standard will be discussed along with practical hands on learning of servicing, inspecting, adjusting and identifying common brake failures systematically to ensure brake balance. Basic ABS systems failure diagnosis is introduced. Basic component adjustment and replacement is also covered. Pre-requisite: DIM 122. This course meets for 4 weeks.

DIM 125 **Suspension & Steering Systems**
1.5 credits / 3 class hrs / 9 lab hrs

Detailed analysis of the four main suspension systems used in the trucking industry, walking beam, air, spring and torsion bar design. Troubleshooting and repair of these systems will be covered in detail. Maintenance of tire and wheel components along with wheel end adjustment, replacement and inspection procedures will be practiced. Front axle alignments and adjustments to toe angle will be practiced for competency and accuracy. Introduction to equipment suspensions will be introduced; tract and roller systems. Pre-requisite: DIM 123. This course meets for 4 weeks.

DIM 211 **Hydraulics Technology**
3 credits / 3 class hrs / 9 lab hrs

Introduction to fluid forces and their application to power transfer. Emphasis on troubleshooting and repair of hydraulic systems. To include schematic terminology, construction, circuit analysis and testing of the hydraulic system. This unit will also expand the student's knowledge of hydraulic braking and steering systems. Pre-requisite: DIM 125. This course meets for 8 weeks.

DIM 213 Diesel Engine Rebuilding Technology
3 credits / 3 class hrs / 9 lab hrs

Diagnosis and service of diesel engines to include details of construction, theory of operation of two cycle engines and four cycle engines, plus failure analysis. Disassembly and rebuilding for service and study of engine components is done on mechanical and electronic controlled engines. Students have the opportunity to expand their knowledge and apply technical skills. Pre-requisite: DIM 211. This course meets for 8 weeks

DIM 221 **Drive Train Systems**
3 credits / 3 class hrs / 9 lab hrs

Includes diagnosis, removal, repair and replacement of components from engine to drive axles. Includes clutches, manual transmissions, axles, differentials, propeller shafts, axle and tracked suspension systems. Pre-requisite: DIM 213. This course meets for 8 weeks.

DIM 222 Air Conditioning Systems / Transport Refrigeration
3 credits / 3 class hrs / 9 lab hrs

Introduces theory of operation of mobile refrigerated units. Emphasis is on maintenance, service and diagnosis of air conditioners on automotive and heavy equipment. Students will have an opportunity to expand their knowledge of and apply foundation skills and workplace competencies as described in SCANS. Pre-requisite: DIM 213. This course meets for 8 weeks.

DRR 109 **Print Reading for Welders**
3 credits / 2 class hrs / 2 lab hrs

This course provides students the knowledge to read and comprehend the various types of prints found in the welding industry. Content includes print reading basics, math and measurement, an overview of welding processes, types of welds and joints, and welding symbol use.

DRR 117 **Blueprint Reading for Construction Trades**
3 credits / 2 class hrs / 2 lab hrs

This course introduces students to orthographic drawings and interpretation of construction documents. Students will review architectural, civil structural, mechanical, and electrical prints to become familiar with drawing used in residential and light commercial construction. Interpreting technical specifications and preparing a construction cost estimate are also included.

ECE 101 **Healthy Learning Environments for Children**
3 credits / 3 class hrs

Examines organizing space and equipment for indoor and outdoor activities; helping children learn to play together; understanding and providing for children's health, safety and nutritional needs; and maintaining a safe learning and play environment in and outside of the classroom.

**ECE 105 Advancing Intellectual & Social Development
in Young Children
3 credits / 3 class hrs**

Covers the intellectual (cognitive) and social development of children and the ways that teachers support development in their daily interactions with young children. Topics will include encouraging young children to explain, experiment and question; advancing language use and comprehension; and building positive self-concept in the young child. Focus of the course will be applying developing knowledge of young children to help them learn in a manner that supports development in the whole child.

**ECE 120 Programmatic & Professional Development
in Child Care Field
3 class hrs**

Covers topics including: techniques for establishing positive and productive relationships with the families of child care/development program participants; program management skills such as planning, record keeping, communication and cooperation; and the processes inherent in establishing and maintaining a demonstrated commitment to professionalism.

**ECE 192 Field Experience in Early Childhood Education I
3 credits / 9 lab hrs**

Provides students with the opportunity to actively experience work in the child care/early education field through exposure and hands-on experience working with infants, toddlers, preschool and/or school-aged children in community-based group-care settings. Field experience allows students to implement and practice skills learned in related coursework, while periodic seminars help students to connect their field work to related theory and receive support from peers completing field experience in other settings. Satisfies the first 90 hours of total practical experience required for CDA credential. Program immunization requirements and criminal background checks are required for course enrollment.

**ECE 196 Field Experience in Early Childhood Education II
4 credits / 1 class hr / 9 lab hrs**

Provides students with practical experience in working with and observing young children in a variety of community-based child care settings; allows students to actively experience work in the child care field and learn from skilled practitioners. Students will implement and practice skills learned in related coursework to observe, plan and implement developmentally appropriate learning activities for children in infant, toddler, preschool and/or school-aged children's programs. Regular (weekly or bi-weekly) seminars are an integral part of the experience and will allow students to connect their field work with professional theory and philosophy as well as experience support from colleagues enrolled in field experiences in a variety of settings. Satisfies 180 hours of total practical experience requirement for CDA credential. Pre-requisite: ECE 192. Enrollment limited to students matriculated in Early Childhood Education program. Program immunization requirements and criminal background checks are required for course enrollment.

**ECE 197 Field Experience in Early Childhood Education III
5 credits / 1 class hr / 12 lab hrs**

Continues to build on the foundation of skills begun in previous practicum work. Students will have increased involvement with children and will develop, understand and practice techniques for child assessment and planning. Course requires students to take a more active role in observing, planning for and delivering curriculum to young children. Periodic seminars remain an integral part of the experience and allow students to share learning experiences from different field sites. Students may elect to conduct their field experience in a specialized area of early childhood education. Satisfies final 180 hours of total practical experience requirement for CDA credential. Pre-requisite: ECE 196. Enrollment limited to students matriculated in Early Childhood Education program. Program immunization requirements and criminal background checks are required for course enrollment.

**ECE 200 Child Growth and Development
3 credits / 3 class hrs**

Development of children from conception to pre-adolescence will be studied. Focus of the course will be on four age groups of early childhood -- infants, toddlers, preschoolers, and early elementary children in relation to the four domains of development: physical, cognitive, social-emotional, and acquisition of language and communication. Includes exploration of the latest child development research, including the neurological bases of learning or "brain-based" learning. Students will develop an understanding of how experiences provided in childcare settings can impact the development of the young child.

**ECE 205 Children's Literature
3 credits / 3 class hrs**

Emphasis is placed on the creation of an environment that supports development of emergent literacy and encourages young children's exploration and enjoyment of literature. Experiences will include development of reading centers; storytelling; creative dramatics; and evaluation, selection and presentation of age appropriate reading materials. Students will directly explore a variety of children's literature appropriate for use in early childhood settings.

**ECE 210 Child Guidance and Discipline
3 credits / 3 class hrs**

Discusses the differences between punishment and discipline and techniques for guiding young children. Topics will include positive reinforcement, redirection of negative behavior, setting and enforcing limits, and the natural and logical consequences of a child's choices. Students will also learn techniques for self-control and stress management, and will develop an understanding that effective discipline follows development of a respect for the dignity of the child. Pre-requisites: PSY 101, ECE 105 and ECE 200 or commensurate experience

ECE 220 Education of Young Children with Special Needs
3 credits / 3 class hrs

Includes: observation and documentation of child behavior; categories and descriptions of special needs; adapting curriculum to meet individual needs; and developing healthy attitudes and behaviors in children, staff and parents toward the special needs child. Emphasis will be placed on developing and maintaining supportive relationships with parents of children with special needs and developing cooperative relationships with other professionals involved with the child, including therapists, social workers and medical personnel. Pre-requisite: ECE 200 or commensurate experience

ECE 230 Curriculum in Early Childhood Education (Birth-3 years)
3 credits / 3 class hrs

Provides an in-depth study of the development and implementation of developmentally appropriate curriculum for infants and toddlers based on an understanding and knowledge of child development, individual children, the group of children, and community and program goals. Topics will include assessment of children; age-appropriate scheduling and instructional planning; and maintaining a physically and psychologically safe learning environment. Students will develop creative instructional materials and will evaluate and utilize commercially developed products. Pre-requisite: ECE 200 or commensurate experience

ECE 235 Curriculum in Early Childhood Education (Ages 3-8)
3 credits / 3 class hrs

Continues topics studied in ECE 230 with emphasis on the development and evaluation of curriculum and materials suitable for the preschool child and for school-aged children in childcare settings. Coursework will focus on curricula as exemplars of developmentally appropriate practice in early childhood education and on practical issues around implementation of curricula for children in this age group. Students will work toward development of their personal definition, goals and values around curriculum. Pre-requisites: ECE 105 and ECE 200 or commensurate experience.

ECO 213 Macroeconomics
3 credits / 3 class hrs

This course is based on a basic theory of macroeconomics which provides a unique textual and visual learning system that presents and reinforces core concepts, then immediately assesses comprehension to ensure understanding highlights the latest information on economic growth, income distribution, federal deficits, environmental issues, and other economic developments while applying concepts to everyday life. Note: ECO 111 Principles of Economics will substitute.

EET 221 Control Systems & PLCs
3 credits / 2 class hrs / 3 lab hrs

Programmable Logic Controllers are used extensively in process control and machine control. The course provides a strong

foundation for understanding the fundamentals that apply to all PLC brands and offers an introduction to applications where PLC are used in industry. Theory will be reinforced by applying ladder diagram concepts from hard wired circuits to ladder logic programming using PLC equipment. Students will gain experience with hardware and software systems for the Koyo DL 105, Allen Bradley SLC 500, Compact Logix, and Control Logix platforms. Introductions to DeviceNet and Panel View Plus systems will also be presented. Pre-requisites: DIB 113, ELS 124, and ELS 125

ELC 110 National Electrical Code
3 credits / 3 class hrs

Presents the fundamentals of the current National Electrical Code (NEC). Classroom discussion emphasizes single and multi-family dwellings while reviewing concepts of motors, control wiring and commercial wiring systems. Introduces the concept of using the NEC book as a tool and emphasizes methodology of reading and understanding the NEC. Periodic examinations are given. An excellent course for beginning electricians preparing for the journeyman license exam.

ELC 116 National Electrical Code for Industry
3 credits / 3 class hrs

Presents the fundamentals of the current National Electrical Code (NEC). Classroom discussion emphasizes commercial and industrial wiring techniques while reviewing residential wiring concepts. Introduces the concept of using the NEC book as a tool and emphasizes methodology of reading and understanding the NEC. Periodic examinations are given. An excellent course for electricians preparing for the master license exam. Pre-requisite: ELC 110 or instructor's permission

ELE 112 Basic Residential Wiring
3 credits / 2 class hrs / 2 lab hrs

A beginning course in electrical wiring methods using electricians' tools and wiring materials. Wiring projects include single-pole switching, 3-way switching, and 4-way switching of lighting circuits, receptacle circuits including GFCI and AFCI protection, and installation of romex cable, boxes, and associated hardware.

ELE 210 Electrical Construction & Maintenance I
3 credits / 3 class hrs

Students learn the elements involved in residential and commercial wiring, acquiring the skills necessary to plan, layout and install wiring materials and devices common to building construction in accordance with the guidelines set forth in the National Electrical Code and in accordance with usual practices in the industry. Students will obtain a basic fundamental knowledge of DC and AC power technology motors and transformers on which to build an applied knowledge of control techniques. Pre-requisites: ELE 112, ELS 124 and ELS 125; Co-requisite: ELE 212

ELE 212 Electrical Construction & Maintenance I Lab
3 credits / 9 lab hrs

Lab component of ELE 210. Co-requisite: ELE 210

ELE 222 Electrical Construction & Maintenance II
3 credits / 3 class hrs

Students will learn the key elements involved with commercial and industrial wiring, acquiring the skills necessary to install wiring materials and devices common to the commercial and industrial construction in accordance with the National Electrical Code and in accordance with usual practices in the industry. Pre-requisites: ELE 210 and ELE 212; Co-requisite: ELE 223

ELE 223 Electrical Construction & Maintenance II Lab
3 credits / 9 lab hrs

Lab component of ELE 222. Co-requisite: ELE 222

ELS 115 Basic Electricity / Electronics
3 credits / 3 class hrs

Examines the subject at the beginner's level. Topics Include current, voltage, resistance, OHM's law, magnetism, electrical measurements, DC circuits, inductance, capacitance, AC measurements, and transformers. Corequisite: ELS 116

ELS 116 Basic Electricity / Electronics Lab
2 credits / 6 lab hrs

Lab component of ELS 115 Corequisite: ELS 115

ELS 119 Introduction to Electronic Systems
2 credits / 1 class hr / 2 lab hrs

This course will introduce students to the basic concepts required to maintain and troubleshoot electronic control systems. The course begins with a study of the relationships between current, voltage and resistance in both DC and AC systems, then progresses to a comparison of analog and digital measuring instruments. Electrical safety as well as an introduction to components used in industrial control systems will be presented next. The course concludes with an introduction to schematic diagrams and troubleshooting techniques used to maintain typical water and wastewater control systems.

ELS 124 Industrial Electronics
3 credits / 2 class hrs / 3 lab hrs

Integrates concepts learned in AC and DC circuits as they apply to industrial manufacturing equipment. It provides an introduction to industrial control systems with a focus on equipment applications. Topics include power supplies, thyristers, discrete and analog sensors and devices, opto-electronics computer based control equipment, and industrial network communication. Lab exercises provide practical experience with shop equipment, troubleshooting circuits and reading schematics. Pre-requisite: ELS 115 and ELS 116

ELS 125 Motors & Controls
3 credits / 2 class hrs / 3 lab hrs

Studies electric motors and how they are controlled. Units of study

include: single phase motors; motor control basics; three phase motors and control; specialty motors and control; power distribution and monitoring systems; and DC motors, generators and control. Laboratory exercises using real life motors and control devices help students gain practical experience with equipment they will encounter in the work environment. Pre-requisites: ELS 115 and ELS 116

EMS 112 Respiratory Emergencies
2 credits / 23 class hrs / 22 lab hrs

This course is designed to provide students with an in depth understanding of the respiratory system. Topics will include a review of anatomy and physiology of the respiratory system, respiratory pathophysiology, assessment and management of the respiratory patient. Students will practice basic as well as advanced level airway management techniques and procedures. This course serves as the major fundamental foundation for Advanced EMT licensure and practice.

EMS 113 Cardiology I
2 credits / 30 class hrs

This course is designed to provide students with an understanding of the cardiovascular system, including conduction system of the heart, electrocardiography, 12-lead ECG, and beginning treatment of a patient presenting with cardiac related conditions. Students will demonstrate use of the ECG monitor/defibrillator including defibrillation, non-invasive pacing, and cardioversion. Topics will include a review of the anatomy and physiology of the heart and circulatory system, electrophysiology, and assessment of the cardiac patient.

EMS 114 AEMT Lab
1 credit / 45 lab hrs

This laboratory course is designed to enhance, develop and establish student's overall patient management skill level. Subject matter is complementary to instruction provided in the Fundamentals of EMS, Respiratory Emergencies, and Cardiology I courses. Students will perform with proficiency skills such as airway management, medication administration, peripheral and intraosseous access, and patient assessment/management. This course is required before any AEMT student enters the clinical setting. Co-requisites: EMS 113, EMS 114, and EMS 115

EMS 115 Fundamentals of EMS
3 credits / 38 class hrs / 22 lab hrs

This course introduces the student to the role of the advanced life support provider. Topics covered include roles and responsibilities of the EMS professional, medical terminology, self-care, and an introduction to pathophysiology. Student's learning will include but not be limited to, how to perform a health history and advanced level physical examination, intravenous and intraosseous cannulation, medication administration, and introductory pharmacology concepts. Pre-requisite: Matriculation in the AAS or AEMT Certificate program.

EMS 116 Emergency Medical Technician-Basic
6 Credits / 60 class hrs / 90 lab hrs

This course is designed to give students, through lecture, practical lab, and clinical experience, the entry-level knowledge and skills necessary to provide basic emergency medical care and transportation for patients who access the emergency medical system. Upon successful course completion, students are eligible to take the National Registry of Emergency Medical Technicians (NREMT) certification examinations, at the EMT level. Students will perform interventions necessary to provide patient care and transportation including patient assessment, airway management, oxygen administration, CPR, spinal motion restriction, shock management, bandaging, splinting, and medication administration. Knowledge and skills obtained at the EMT level provide the foundation for advancement to Advanced EMT and Paramedic.

EMS 122 AEMT Clinical Externship I
2 credits / 100 clinical hrs

This clinical course provides students with the opportunity to apply in the hospital setting, skills and knowledge learned in the classroom, lab and simulation. Students partner with assigned preceptors at local hospitals to develop skills in but not limited to, critical decision making, ECG interpretation, physical assessment, and advanced airway management. Hospital rotations include ER, ICU, OR, IV therapy, and various others. Students must complete the minimum number of hours and skills established by the NMCC program in order to successfully pass courses and ultimately be eligible for AEMT licensure. This is one of two required clinical courses for the AEMT program. Pre-requisite: EMS 114

EMS 126 AEMT Externship II
2 credits / 100 clinical hrs

Building on skills learned in lab and the hospital setting, students will apply their knowledge to actual patient situations in prehospital settings. Students are partnered with preceptors who will assist the student into the role of an advanced level EMS professional. Students must complete the minimum number of hours and skills established by the program and approved by CoAEMSP to be eligible for certification exams. This is one of two required clinical courses for the AEMT program. Pre-requisite: EMS 114; Co-requisite: EMS 122

EMS 130 AEMT-Skills Seminar
1 credit / 45 lab hrs

This course can serve as a refresher course for those who are currently licensed Advanced EMTs or advancing license to Paramedics, as well for students who wish to become nationally certified at the AEMT level. Students will review and practice all AEMT skills in an interactive seminar format. Multiple case studies, interactive lab sessions, and creative teaching methods are used, concluding with mandatory skills and written testing to assure mastery of topics, prior to sitting for the NREMT – AEMT exams. This is a pass/fail course. Pre-requisite: EMS 114; Co-requisite: EMS 126

EMS 205 Medical Emergencies
3 credits / 45 class hrs

This course explores the pathophysiology and management of selected diseases and conditions. Topics include infectious and communicable diseases, toxicology, hematology, neurologic, endocrine, allergy and anaphylaxis, renal, and gastroenterology emergencies. Pre-requisites: EMS 213. This course includes completion of Advanced Medical Life Support (AMLS).

EMS 213 Advanced Emergency Cardiovascular Care
4 credits / 45 class hrs / 45 lab hrs

A comprehensive study of cardiac and vascular disorders. Topics include pathophysiology, advanced cardiac assessment, detection and treatment of cardiac rhythm disturbances, 12-lead ECG analysis, and treatment of cardiovascular disorders. Lecture and lab sessions include cardiac arrest management, and clinical decision making. Students successfully completing this course will receive a certificate in Advanced Cardiac Life Support (ACLS). Pre-requisite: EMS 130

EMS 214 Advanced Emergency Pharmacology
3 credits / 38 class hrs / 8 lab hrs

This course provides students with knowledge about the principles of pharmacology. It includes pharmacologic classifications, mechanisms of drug actions, pharmacokinetics, key adverse effects and drug interactions. An overview of the bodily effects of drugs as well as review of major drug categories. This course provides students with knowledge, responsibilities, and accountability in the administration of medications across the lifespan. This course will also cover dosage calculations necessary for safe preparation and administration of medications. Co-requisite: Matriculation into the Paramedic Certificate Program or associate degree program.

EMS 216 Paramedic Clinical Externship I
5 credits / 225 clinical hrs

This faculty directed practicum gives each student the changes to develop competency in the clinical setting while working one on one with an experienced preceptor. Clinical rotations occur in both the hospital and field, including: cardiac care units, emergency departments, operating rooms, ambulance services, to name a few. Students must complete the minimum number of skills and hours established by the program and CoAEMSP, to be eligible for certification exams. This is one of three required clinical courses at the paramedic level. Co-requisites: ALH 124, EMS 205, EMS 220 and EMS 222

EMS 220 Pediatric Emergencies
2 credits / 23 class hrs / 22 lab hrs

This course is designed to allow students to integrate pathophysiologic principles and assessment findings to formulate a field impression, and implement an assessment and treatment plan for the neonatal and pediatric patient. Topics will include age specific assessment and management of respiratory, cardiac, trauma, neurological, obstetric and gynecological emergencies. The lab portion of this course includes Pediatric Advanced Life Support and Emergency Pediatric Care (EPC) (these certifications require additional fees).

EMS 222 **Trauma Management**
3 credits / 31 class hrs / 37 lab hrs

This course covers the pathophysiology, kinematics and management of the trauma patient. Topics include, but are not limited to, multisystem trauma, burns, spinal, head, orthopedic, and internal injury, as well as current trends in trauma management. Through the lab portion of this course students will complete a Prehospital Trauma Life Support (PHTLS) course. There is an additional cost for this certification.

EMS 226 **Paramedic Clinical Externship II**
4 credits / 170 clinical hrs

Building on the skills and knowledge presented in previous courses, this externship will allow students to continue to grow and refine advanced EMS skills and assesment. Students will spend this rotation perfecting clinical and assessment skills in a variety of settings. Students will immerse themselves in emergency ambulance response, interfacility transport ambulances, OB units, Intensive Care Units, and physician offices. Students will continue to develop leadership skills while partnered with an experienced EMS preceptor. Students must complete the minimum number of skills and hours established by this program and CoAEMSP to be eligible for certification exams. This is one of three required clinical courses at the paramedic level. Pre-requisite: EMS 216

EMS 229 **Paramedic Skills Seminar**
1 credit / 45 lab hrs

Designed as the capstone course for the paramedic education program, this course will provide students with an intense review of didactic and psychomotor experiences that simulates professional practice. Students completing this course will practice the skills necessary to successfully pass the national examinations and to become effective entry level field practitioners. Additionally, a comprehensive review of didactic content is included. Topics include ambulance service management, concepts of lifelong learning, Maine's Paramedic interfacility Transport Module (PIFT), quality improvement, and the ALS providers' role in the community. Students will have the opportunity to perfect assessment-based management through a case scenario approach. Utilizing both high and low fidelity simulation, the course concludes with students taking the National Registry Certification Examination. Co-requisite: EMS 226

EMS 231 **Special Populations**
1 credit / 15 class hrs

This course is designed to allow students to integrate pathophysiologic principles and assessment findings to formulate a field impression, and implement an assessment and treatment plan for the geriatric and psychiatric patient, as well as the patient with special needs. Topics will include age/condition specific assessment and management of respiratory, cardiac, trauma, neurological, and behavioral emergencies.

EMS 232 **Paramedic Clinical Capstone**
1 credit / 45 clinical hrs

Designed as the clinical capstone course for the paramedic program. Students will apply and integrate all key didactic, psychomotor, affective, and clinical constructs of the EMS program and apply it to contemporary practice in the pre-hospital setting. Students will demonstrate and exercise the ability to function as an entry-level paramedic while being guided, overseen, and evaluated by experienced paramedic preceptors. Co-requisite: EMS 226

EMS 233 **EMS Operations**
1 credit / 45 lab hrs

Upon completion of this course students will be able to utilize knowledge and skills gained to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents. Some portions of this course may take place off campus for a better student experience.

EMS 236 **Paramedic Assessment Based Management**
1 credit / 45 lab hrs

Designed to be a summative laboratory course, students will be evaluated in both the team lead and team member role in scenarios. This course serves to culminate the skills practiced and evaluated in previous courses and evaluate the student's ability to be both a team member and the clinical decision maker in given patient care scenarios. The scenario lab component provides students the contextual opportunity to demonstrate competence in the simulated environment prior to progressing to the role of Team Lead in a field clinical environment. Co-requisite: Matriculation into the Paramedic Certificate Program or associate degree program.

EMS 243 **Community Paramedicine**
8 credits / 90 class hrs / 30 lab hrs

This course takes the experienced paramedic and expands upon their role into the role of community paramedic. Course content includes medical legal issues, scope of practice, financial implications, nutrition, and public health. A significant portion of this course is reserved for discussion of the social determinates of health and the role of the community paramedic in public health. Students will learn about high risk populations, health promotion and injury prevention strategies, as well as chronic disease management. Advanced physical assessment, laboratory test interpretation and bed side diagnostics are introduced. Co-requisite: Matriculation in the Community Paramedicine program.

EMS 245 **Community Paramedicine Clinical**
3 credits / 90 clinical hrs

Designed to allow students to apply the skills learned in the didactic and lab courses to a variety of clinical settings under the direction of a preceptor. Clinical rotations occur at hospitals, schools, public health facilities, long term care facilities, clinical diagnostic laboratories, primary care offices, and in a variety of other specialty areas. The goal of the clinical experience is to expose the student to a variety of roles. Co-requisite: ALH 124, EMS 244

EMS 246 **Leadership in EMS**
2 credits / 30 class hrs

This course serves to provide the student with a deeper understanding of the major components and principles of a leadership role, as well as adapting to the changing role of the EMS provider. The student will learn different styles of leadership and investigate the qualities of a successful leader. The student will develop a comprehensive understanding of public relations, education, and medical direction; and their roles in the advancement of a stronger EMS system. Pre-requisite: Current EMS licensure.

EMS 247 **Community Paramedic Seminar**
1 credit / 45 lab hrs

Designed as a capstone course the seminar will provide the student with an intense lab experience that simulates professional practice, as well as present their capstone project, worked on throughout the program. Additional topics covered include ambulance services management, concepts of lifelong learning, quality improvement, and the provider's role in their community. Pre-requisite: EMS 245

EMS 296 **Critical Care Emergency Medical Transport**
7 credits / 100 class hrs

This course is the nationally accepted University of Maryland-Baltimore County Critical Care Emergency Transport Program. This program is designed to prepare paramedics and nurses to function as members of a critical care transport team. Critical patients that must be transported between facilities require a different level of care from hospital or emergency field patients. Participants will gain an understanding of the special needs of critical patients during transport, become familiar with the purpose and mechanisms of hospital procedures during transport. Topics include: The Critical Care Environment, Breathing Management, Surgical Airway Management, Hemodynamic Management, Cardiac Management, Pharmacological Management, GI, GU and Renal Management, Neurological Management, Complications of Transport and Special Considerations. Students with 100% attendance will be evaluated with a written examination at the end of the course. Successful participants are issued a renewable certificate from the University of Maryland-Baltimore County (valid for three years). Pre-requisites: Must be a licensed Paramedic or Registered Nurse with certifications in BLS, ACLS, ITLS/NCC/PHTLS, PALS and one year of field experience.

ENG 017 **Reading & Writing Fundamentals**
4 credits / 4 class hrs

This course is designed to help students improve their reading vocabulary, writing skills; including paragraph and essay development; comprehension, study and test-taking abilities. The class will cover critical reading and writing skills, main ideas, vocabulary development, supporting details, organizational patterns, study skills and strategies, and inference. We will use a wide variety of resources such as the textbook, a collection of essays, newspapers, magazines, internet websites, blogs, and books to help the student strengthen and build reading and writing basic skills. Credit from this course is not applicable towards graduation.

ENG 111 **English Composition**
3 credits / 3 class hrs

Basic writing course intended to strengthen the student's ability to think logically and to write clearly. The course will cover grammar, paragraph organization, the essay and the research paper with a strong emphasis on revision.

ENG 226 **Introduction to Literature**
3 credits / 3 class hrs

An introduction to the study of literature designed to help students develop the ability to read, interpret, and criticize a variety of literary forms and to appreciate literature as a source of insight into human values. Pre-requisite: ENG 111

ENG 227 **Advanced Composition**
3 credits / 3 class hrs

Students will review the writing process and the strategies for drafting, revising and editing covered in English Composition. Students will continue to work on developing the ability to critically read and analytically write papers that clearly express their ideas. Emphasis will be on primary and secondary research skills and the use of MLA and APA style documentation. Students will learn and practice the writing conventions used within their major area of study. The course will prepare students for upper level course work in their majors, research in the workplace, and/or transfer to four-year programs. Pre-requisite: ENG 111

ENG 228 **Topics in Literature**
3 credits / 3 class hrs

Close reading of texts related by topic, theme, or historical period. May be repeated for credit. Pre-requisite: ENG 111

ENG 231 **Women in Literature**
3 credits / 3 class hrs

Examines and explores the role of literary expression in defining, understanding and communicating the experience of being alive and female, as it has been expressed in texts written in the English language. This course analyzes how women have used literature to claim a voice, defining and writing themselves and their experiences into existence. This course will consider the ways that race, class, ethnicity, sexuality, age, region and physical ability inform women's struggle for understanding, self-determination and power in a world dominated by patriarchal privilege. Students will read a variety of women's perspectives that will address these issues and develop their own skills and voice in understanding, speaking and writing about women's literature. Pre-requisite: ENG 111

ENG 239 **Introduction to Creative Writing**
3 credits / 3 class hrs

This course is portfolio based and will cover three genres: fiction, poetry, and nonfiction. In each genre, students will read a great deal, up to three short works or several works by multiple poets

each week. Class time will be used to write and discuss exercises, workshop, and analyze texts. Prerequisite: ENG 111

HIS 123 **U.S. History, 1500-1865**
3 credits / 3 class hrs

A survey of the political, social, economic and cultural forces that shaped American history from the beginnings of European exploration to the end of the Civil War.

HIS 125 **U.S. History, 1865 to Present**
3 credits / 3 class hrs

A survey of the political, social, economic, and cultural forces that shaped American history from the end of the Civil War until the present.

HIS 206 **American Sports History**
3 credits / 3 class hrs

This course is a survey of American sports history from the colonial era to the present. An emphasis will be placed on the role of sports in American life and how broad social and cultural changes in American society have been reflected in and by sports.

HIS 207 **Maine History**
3 credits / 3 class hrs

A survey of Maine history from the age of discovery to the present.

HIT 111 **Medical Law & Ethics**
3 credits / 3 class hrs

Provides the student with a study of law and legal concepts as they apply to the practice of health information management. Emphasis is on HIPAA Privacy/Security Rule regarding privacy and confidentiality; health record documentation management and release of information practices; and use and disclosure of patient information. Other topics will include state and federal statutory regulations for legal health records, medical staff appointments, healthcare provider credentialing, healthcare risk management, physician liability, and the expanding role of medical record information and subsequent impact due to the advance of electronic health records. Issues that occur in biomedical ethics will also be presented. It will provide the language and framework for understanding more about ethics within the context of dealing with complex health information issues as well as the process that HIM professionals can use to make appropriate ethical choices and to analyze what is and is not justified from an ethical perspective. Co-requisite: HIT 115, HIT 214 and BIO 211.

HIT 112 **Medical Law, Reimbursement and Delivery Systems**
3 credits / 3 class hrs

This course emphasizes three areas of health information; (1) the uses of coded data and health information in reimbursement and payment systems appropriate to healthcare settings and managed care; (2) basic health data structure, content, and standards; healthcare delivery systems and information technology systems;

and (3) relevant legal compliance and ethical issues faced by clinical coders in the workplace setting. Special emphasis is placed on HIPAA compliance issues and ensuring that coders have the critical thinking skills to appropriately meet ethical and privacy issues in their workplace. Corequisite(s): HIT 114 and HIT 116

HIT 114 **Clinical Classification System I with Lab**
3 credits / 2 class hrs / 2 lab hrs

Emphasizes the principles and conventions of clinical classification systems used in today's healthcare settings. Emphasis is placed on ICD-10-CM and ICD-10-PCS. A history of nomenclatures and classifications systems is covered, as well as the relationship between coding and health care reimbursement. Other topics include: applicable licensing and regulatory issues relative to coded data, payment and reimbursement systems, professional ethics content of the medical record, decision-making processes, data validity and integrity, classification systems and nomenclature, quality assessment and improvement, work and legal standards related to reimbursement, and retrieval of information. Concepts covered in the class are explored in greater detail in the coding lab. Corequisite(s): ALH 220 and BIO 114.

HIT 115 **Clinical Applications of Pathophysiology & Pharmacology**
3 credits / 3 class hrs

Designed to educate Allied Health students on the study of pathophysiology and general health management of disease and injuries across the human life span. The course will examine the fundamentals of pathophysiology as it is manifested within each body system. It will include pathogenesis etiology, clinical manifestations, current diagnostics, and pharmacological and other treatment modalities. Emphasis will be on disease terminology and abbreviations with identification of disease symptomatology, differential diagnosis and evaluation of laboratory data and drug therapy through textbook readings. It will also focus on the principles of drug action and how the use of drugs alters the disease process. Also included will be the cellular mechanisms of drug actions and the mechanisms of adverse drug effects. Prerequisite(s): BIO 114

HIT 116 **Clinical Classification System II with Lab hrs**
3 credits/ 3 class hrs / 2 lab hrs

Emphasizes the principles and conventions of the HCPCS/CPT clinical classification systems used in today's healthcare settings. Other topics in the course include applicable licensing and regulatory issues relative to coded data, payment and reimbursement systems, professional ethics, content of the medical record, decision-making processes, data validity and integrity, classification systems and nomenclature, and quality assessment and improvement. Students will be expected to apply decision making in record review for complete, accurate, and timely coding. HCPCS/CPT coding will also be practiced and applied in conjunction with ICD-10-CM for hospital ambulatory surgery, the physician's office setting and other outpatient settings. The CMS developed Prospective Payment System for ambulatory care will be reviewed. Concepts covered in the class are explored in greater detail in the coding lab. Corequisite(s): ALH 220 and BIO 114

HIT 214 **ICD-10-CM/PCS Coding Part II**
3 credits / 3 class hrs

Integrates and builds on knowledge and skills gained in HIT114, enhancing the skill level by coding complex clinical case studies. Reimbursement topics include coding compliance, case mix analysis, severity of illness systems, coding quality monitors, coding auditing strategies, and official coding guidelines. Emphasis is placed on accurate code selection and correct sequencing of principle and secondary diagnosis as well as ICD-10-PCS procedure coding for medical documentation and reimbursement. Student learning is reinforced on diagnostic and procedure based prospective payment systems including MS-DRGs, APR- DRGs. Also reinforced are diagnostic coding systems including ICD-O, and DSM-5, Systemized Nomenclature of Medicine (SNOMED) and its role as a basis for the electronic health record. Prerequisite(s): HIT 114 and HIT 116; Corequisite(s): HIT 115 and HIT 216

HIT 216 **CPT Coding Part II**
3 credits / 3 class hrs

Integrates and builds on knowledge and skills gained in HIT116, enhancing the skill level by coding complex clinical case studies in the outpatient setting utilizing complex CPT code assignments. Special emphasis is placed on outpatient reimbursement issues including RUGs, PACs, RBRVs, and E/M Coding. Concepts covered in the course will be reinforced in greater detail in the coding lab. Prerequisite(s): HIT 114 and HIT 116; Corequisite(s): HIT 115 and HIT 214

HIT 219 **Professional Practical Experience**
2 credits / 3 class hrs

This course is a supervised work experience that provides students with exposure to coding practices in a hospital, physician's office, clinic or other healthcare setting with directed projects common to the typical coding tasks of a clinical coding specialist. Students are introduced to the health information process and coding procedures through observation, study and work. This experience will be a hands-on experience coding authentic patient records, whether through a field-based or virtual professional practice experience. Student must be available to complete a 60-hour internship during the semester to include actual coding time, recorded presentations and other resources made available to the student. HIT 219 cannot be taken until all other program requirements have been successfully completed.

HPB 110 **High Pressure Boiler Operator**
3 credits / 3 class hrs

Meets the education requirements necessary to take the State of Maine high pressure boiler operator examination. Emphasis on boiler classification, design, accessories and theory of operation, as well as State of Maine boiler rules.

INS 110 **Instrumentation & Process Controls**
3 credits / 2 class hrs / 2 lab hrs

This course will introduce students to the fundamentals of process measurement and control systems. The course will begin with a study of industrial instrumentation including pressure, level, flow and analytical measurement systems. A thorough understanding of 4-20mA process signals will be provided as well as an introduction to PID process loop controllers. The course will conclude with an introduction to motor speed control concepts including configuration and troubleshooting variable frequency drive systems. Pre-requisite: ELS 119

MAT 011 **Foundational Mathematics**
3 credits*/ 3 class hrs

This course prepares the student for upper-level math courses. Credit from this course is not applicable for graduation

MAT 115 **Business Mathematics**
3 credits / 3 class hrs

Designed to provide solid, practical and current coverage of the mathematical topics students must master to succeed in business today. Students will develop the computational and vocabulary skills necessary for retailing, marketing, accounting, business management, and finance. Topics include: interest, banking, depreciation systems, payroll, statistics, and graphs.

MAT 116 **Quantitative Reasoning**
3 credits / 3 class hrs

This survey mathematics class includes use of basic quantitative skills with fractions, decimals, and percent; fundamentals of algebra; and the exploration of the mathematical concepts of unit analysis, personal finance, and basic statistics.

MAT 121 **Technical Mathematics**
4 credits / 4 class hrs

This applied mathematics course reviews and strengthens the student's understanding of fundamental algebra, measurement, plane geometry, solid figures and geometric constructions skills. Emphasis is placed on problem solving in the specific trade areas to prepare the student to meet the mathematical challenges that they will encounter in physics, technical lab, and field of employment.

MAT 125 **College Algebra**
3 credits / 3 class hrs

This course covers variables and symbols; scientific notation; formulas and literal equations; slope, intercepts, and equations of lines; graphs of linear and quadratic functions; graphs of linear inequalities; solving systems of linear equations; polynomials, products and factors; roots, rational exponents, and complex numbers; rational expressions; solving linear, quadratic, and higher order equations; solving linear inequalities; an introduction to exponential and logarithmic functions, and applied problem solving.

MAT 210**Statistics**
3 credits / 3 class hrs

This course is designed to develop techniques for organizing, evaluating and analyzing data. This includes frequency distributions, measures of central tendency, variation, probability, the normal and binomial distributions, and hypothesis testing.

MDA 100**Introduction to Medical Assisting**
1 credit / 1 class hr

This course introduces the student to the healthcare industry and the medical assisting profession. Students will learn therapeutic communication skills and how to properly interact with patients and different healthcare professionals. Students will begin learning about the different healthcare records and how they work in the medical office. This is a 7-week course that will run from the beginning of the semester through week 7. Corequisite(s): ALH 220, BIO 114, MDA 110 and MDA 112

MDA 110**Medical Assisting Office Procedures**
3 credits / 3 class hrs

This is an 8-week course that will start during the 7th week of the semester and go through the end of the semester. This course will assist the student to develop skills necessary to perform effectively within the medical office. These skills will include interpersonal skills, computer & telephone techniques, patient processing, office operations, and health information management. Students will learn how to schedule patient appointments and procedures as well as how to use practice management software. Students will learn the finance part of the medical office and how to bill patients for services rendered. This course will give the student an overall look at the administrative duties required of a medical assistant. Corequisite(s): ALH 220, BIO 114, MDA 100 and MDA 112

MDA 112**Medical Assisting Procedures I with Lab**
4 credits / 3 class hrs / 2 lab hrs

This course provides the basics of clinical medical assisting to include infection control, patient assessment, patient education, nutrition/health promotion and assisting with medical emergencies that may occur in the ambulatory care settings. Students will learn about different medical specialties and how to assist providers with exams that are done in those specialty departments. Students will learn the basics of pharmacology and pharmacology math to give them the skills necessary to properly administer oral medications and parenteral (injectable, excluding IV) medications. Students will learn how to properly document patient care in the medical record to comply with healthcare regulations. Corequisite(s): ALH 220, BIO 114, MDA 100 and MDA 110

MDA 125**Medical Insurance and Coding**
3 credits / 3 class hrs

Focuses on understanding medical insurance and billing of the diverse medical insurances, including Blue Cross/Blue Shield, Medicare and Medicaid in the healthcare industry. Provides an overview of insurance claim procedures and legal aspects of billing.

Students will learn how to do procedural and diagnostic medical coding. Provides a forum in which students strive for accuracy in completing medical insurance forms. Prerequisite(s): ALH 220, BIO 114, MDA 100, MDA 110 and MDA 112; Corequisite(s): MDA 213

MDA 213**Medical Assisting Procedures II with Lab**
4 credits / 3 class hrs / 2 lab hrs

This course builds on the content and skills of Medical Assisting Procedures I with Lab and continues preparing students to assist in different medical specialties. Students will continue to learn clinical skills that will be used in the ambulatory care setting including: assisting with minor surgical procedures, performing EKGs, assisting with OB/GYN exams, phlebotomy, and assisting with pediatric care. This course also prepares students to complete different CLIA waived laboratory skills that may be performed as a medical assistant. Prerequisite(s): ALH 220, BIO 114, MDA 100, MDA 110, and MDA 112; Corequisite(s): MDA 125

MDA 223**Medical Assisting Externship**
5 credits / 1 class hr / 4 lab-clinical hrs

This is a 5-credit course that requires students to complete 165 unpaid hours of clinical externship within an ambulatory care setting. During the 165 unpaid hours, students will perform the administrative and clinical competencies that they have learned in the classroom and laboratory while under professional supervision. Upon completion of this course, students should be able to function as an entry level medical assistant. Prerequisite(s): ALH 220, BIO 114, and MDA 213

MDA 224**Electronic Health Records**
3 credits / 3 class hrs

This course is designed to prepare the student to more efficiently use the computer software of an electronic health record. The course emphasizes that thorough documentation is essential for the highest reimbursement possible. Hands-on activities will provide students with transferable skills that will prepare them for success in the medical office, regardless of what software their practice uses.

NUR 100**Nursing Program Success - First Semester Experience**
1 credit / 15 class hrs

This course is designed to equip the incoming nursing student with tools that promote success. Students will be engaged in several academic advising sessions in both individual and group formats and will be expected to complete a Personal Learning Plan, focusing on the student's strategy towards success in the nursing program. Classes will address issues such as learning styles, communication skills, study habits, time management, establishing professional collaborative relationships, test taking skills and coping strategies. This foundational course must be taken in the student's first semester of the nursing program. Co-requisites: NUR 117 and NUR 128

NUR 101**Fundamentals of Practical Nursing**

8 credits / 8 class hrs

This course introduces and examines concepts that form the foundation for the practice of nursing and the related role of the Practical Nurse. It not only examines the history and evolution of nursing, but also explores health-care delivery systems, ethical and legal issues, safety, infection control, and documentation. Student learning will be focused on the holistic and basic human needs of individuals across the lifespan, within the framework of the nursing process. Skills and tools of communication, delegation, the role of the Practical Nurse in the nursing process, and critical thinking will be introduced and used to care for diverse, stable client(s).
Co-requisites: ALH 124, ENG 111, BIO 201 and NUR 104

**NUR 104 Clinical Practicum I Adult/Geriatric
3 credits / 9 lab hrs**

This clinical and lab course for the Practical Nurse student allows practice and development of the basic nursing skills needed to deliver safe client care to diverse adult and geriatric clients. Clinical learning experiences occur in structured health care settings and are correlated with classroom instruction. Students are expected to meet the clinical guidelines and policies for the Practical Nurse program and the off-campus clinical site(s) as required by the respective facility. Pre-requisite: ALH 124; Co-requisite: NUR 101 and BIO 201

**NUR 105 Pharmacology for the Practical Nurse
3 credits / 3 class hrs**

This course will provide Practical Nurse students with knowledge of the basic principles of pharmacology. This will cover mechanisms of safe client administration following client rights, routes and regulations. Math concepts necessary for dosage calculations will be taught. Additional items will include medication classifications, mechanisms of drug actions, key adverse effects, drug interactions, and client safety. Substance abuse and drug diversion will be addressed. Students will learn and practice the skills needed to document and safely administer oral, intra-dermal, intramuscular, subcutaneous, intravenous, and other non-oral routes for administration of medications. There is no clinical component to NUR105. Pre-requisites: NUR101, NUR104 and ALH 124
Co-requisites: NUR 107, NUR 108 and BIO 211

**NUR 107 Practical Nursing Across the Lifespan
8 credits / 8 class hrs**

Students will continue to examine the role of the Practical Nurse in the care of stable individuals and groups of clients with common, well-defined health problems from prenatal through death. Included is an introduction to the bio-psychosocial concepts of the childbearing and childrearing family. Medical and surgical concepts across the lifespan will be introduced while examining the Practical Nurse role as part of the healthcare team. Fundamental concepts will be reinforced and used to build upon concepts related to growth and development; nutrition and diet therapy; maintenance of physical and mental health; and the prevention of illness for diverse individuals and groups across the lifespan. The Practical Nurse role within the nursing process will be used to provide safe and effective

care while meeting holistic needs of clients. Pre-requisites: NUR 101, NUR 104 and ALH 124; Co-requisites: NUR 105, NUR 108 and BIO 211

**NUR 108 Clinical Practicum II Special Populations
3 credits / 9 lab hrs**

This clinical and lab course for the Practical Nurse student allows for advanced skills practice and training for the student to provide safe and effective care for diverse clients across the lifespan. Clinical learning experiences occur in structured health care settings and are correlated with classroom instruction. Students are expected to meet the clinical guidelines and policies for the Practical Nurse program and the off-campus clinical site(s) as required by the respective facility. Pre-requisites: NUR 101, NUR 104 and ALH 124; Co-requisite: NUR 105, NUR 107 and BIO 211

**NUR 115 Pharmacology for Nurses
3 credits / 3 class hrs**

This course discusses pharmacological principles and knowledge regarding nursing responsibilities and accountability in the administration of medications across the lifespan. It includes an overview of the bodily effects of drugs as well as a review of major drug categories. Pharmacological classifications, mechanisms of drug actions, pharmacological, key adverse effects, and drug interactions will be discussed. This course will continue to build on first semester skills in performing dosage calculations necessary for safe preparation and administration of medications. There is no clinical component to NUR 115; Co-requisite: NUR 130

**NUR 117 Nutrition
3 credits / 3 class hrs**

This course provides nursing students with knowledge about fundamental concepts of nutrition across the lifespan, including the relationship of nutrition to health, necessary nutrients for healthy functioning, energy balance and fitness, food safety, and national guidelines, with applications to individuals and groups. Strategies include classroom presentations, nutritional assessments of self and case-study clients, planning of interventions, and evaluation of various nutritional approaches. There is no clinical component to NUR 117; Co-requisite: NUR 128

NUR 124 **Role Transition**
1 credit / 15 class hrs (1 week)

Designed for LPNs who are entering the nursing program for semester two. The course focuses on the role change of the licensed practical nurse to that of an associate degree nurse. The role of the AD nurse as a member within the discipline of nursing, provider of care and manager of care is emphasized. The nursing process is utilized as a method to assist the learner to meet the basic, bio- psychosocial needs of individuals throughout the life span. Pre-requisites: State of Maine LPN licensure, one or more years work experience as practical nurse. This is usually taught as a one-week course prior to the start of the spring semester.

Note: For LPNs, this pre-requisite must have been successfully completed within three years prior to acceptance into NUR 130.

NUR 128 **Foundations of Nursing**
4 credits / 4 class hrs

Introduces students to concepts that form the foundation for the practice of nursing. Student learning is focused on the basic human needs of individuals presented within the framework of the nursing process. Includes basic principles of nutrition, pharmacology, applied physiology, the aging process, and the role of the nurse which addresses ethical and legal responsibilities. Prerequisite(s): BIO 201, ENG 111 and MAT 116 (*unless admitted directly from HS, then HS biology and chemistry with lab (completed within the past 10 years or BIO114; and HS level algebra); Co-requisite(s): NUR 100, NUR 117, NUR 129 and BIO 211

NUR 129 **Clinical Practicum I / Geriatric Population**
3 Credits / 9 lab hrs

This course allows students to apply concepts covered in NUR128 that form the foundation for the practice of nursing. Clinical experience is focused on the basic human needs of individuals presented within the framework of the nursing process. Clinical learning experiences provide an opportunity for students to develop, practice and refine basic nursing skills safely in lab, simulation and clinical settings, with a focus on older adults. Prerequisite(s): Current American Heart Association BLS (Health Care Provider) certification; Co-requisite(s): ALH 124, NUR 100, NUR 117 and NUR 128

NUR 130 **Nursing Across the Lifespan I**
4 credits / 4 class hrs

Provides students with continuing opportunity to assess the bio-psychosocial aspects of individuals throughout the life span. Included is an introduction to the bio-psychosocial aspects of individuals throughout the life span. Included is an introduction to the bio-psychosocial aspects of the childbearing/childrearing family through a family-centered approach. The course includes exploration of the normal prenatal period and addresses development needs of persons of all age groups. Through the use of the nursing process, students develop the necessary knowledge and skills to provide nursing care to the childbearing/childrearing family and to individuals throughout the life span experiencing alterations in

meeting basic human needs. Selected clinical learning experiences utilize the nursing process in the development and provision of nursing care in structured health settings. Prerequisite(s): NUR 100, NUR 117, NUR 128, NUR 129, and NUR 124 (*if LPN); Co-requisite(s): NUR 115, NUR 131 and PSY 101

NUR 131 **Clinical Practicum II/Across the Lifespan**
3 Credits / 9 lab hrs

The clinical, lab, and simulation course for second semester nursing students allows further development and application of intermediate nursing skills needed to deliver safe client care to individuals across the lifespan with a focus on childbearing families. Clinical learning experiences occur in structured health care settings and are correlated with NUR130 classroom instruction. Prerequisite(s): NUR 128, NUR 129, NUR 117, BIO 201 and NUR 124 (*if LPN), current American Heart Association BLS (Health Care Provider) certification; Co-requisite(s): NUR 130, NUR 115 and PSY 101

NUR 195 **Clinical Externship**
3 credits / 135 clinical hrs

Provides nursing students with an opportunity to develop and further refine nursing skills acquired in NUR 129 and NUR 131. This course is an elective for nursing students who have successfully completed the second semester in nursing. Enrollment may be limited based upon availability. Clinical learning experiences utilize the nursing process to provide nursing care to clients in structured health care settings. .Pre-requisites: NUR 115, NUR 130, BIO 211 and PSY 101

NUR 225 **Nursing Across the Lifespan II**
5 credits / 5 class hrs

Emphasis is placed on a holistic approach to the provision of nursing care to diverse individuals throughout the life span experiencing common, well-defined health problems. Through the uses of the nursing process as the mechanism for the delivery of nursing care, emphasis is given to the restoration and maintenance of an individual's bio-psychosocial needs. Prerequisite(s): NUR 130, NUR 131, NUR 115, BIO 211 and PSY101; Co-requisite(s): NUR 228, BIO 218 and PSY 207

NUR 228 **Clinical Practicum III / Across the Lifespan**
4 Credits / 12 lab hrs

Clinical learning experiences in this course allow for advance skills in practice in lab and simulation, and provision of holistic, evidence-based nursing care to diverse clients across the lifespan in a variety of settings. Clinical experiences are correlated with NUR 225 classroom instruction and promote the development of critical thinking and priority-setting while providing compassionate, age and culturally appropriate nursing care. Prerequisite(s): NUR 130, NUR 131, NUR 115, BIO 211 and PSY 101; Co-requisite(s): NUR 225, BIO 218 and PSY 207

NUR 230 **Nursing Across the Lifespan III**
5 Credits / 5 class hrs

Focuses on a holistic approach to the care of the diverse individuals or groups of individuals throughout the life span who are experiencing multiple, common, well-defined health problems. Emphasizes the completion of the role of change process as the student prepares to assume the full scope and legal framework of associate degree nursing practice. Students explore the impact of current issues in nursing on the role of the ADN. Prerequisite(s): NUR 225, NUR 228, BIO 218 and PSY 207; Corequisite(s): NUR 231, COM 111 and humanities elective

NUR 231 **Clinical Practicum IV / Across the Lifespan**
4 Credits / 12 clinical hrs

This clinical practicum is correlated with NUR 230 classroom instruction and builds on the concepts and knowledge gained from previous nursing courses, allowing for the application of theories and concepts associated with nursing leadership, nursing research, and management of care. This practicum includes a clinical preceptorship which enables students to enhance their clinical reasoning skills and collaborate with the interprofessional health care team to manage and coordinate safe, quality care for clients, families, and groups. Prerequisite(s): NUR 225, NUR 228, BIO 218 and PSY 207; Corequisite(s): NUR 230, COM 111 and humanities elective

NUT 101 **Introduction to Nutrition**
3 credits / 3 class hrs

This course provides an overview of nutrition and wellness promotion. Fundamental concepts of nutrition across the lifespan are introduced, including the relationship of nutrition to health, necessary nutrients for healthy functioning, energy balance and fitness, food safety, and national guidelines, with applications to individuals and groups. Strategies include classroom presentations, nutritional assessments of self and case-study clients, planning of interventions, and evaluation of various nutritional approaches. Self-care strategies are presented, including the use of non-pharmacologic, integrative interventions.

PHI 111 **Everyday Ethics**
3 credits / 3 class hrs

An introduction to virtue ethics and how the virtues apply to the dilemmas of everyday life.

PHI 121 **Introduction to Philosophy**
3 credits / 3 class hrs

An introduction to reading, analyzing, and discussing philosophical texts. Students will explore the principal concerns of philosophy, including the limits of our knowledge, the nature of reality, the existence of God and free will, and the relationship between the individual and society. Students will apply philosophical concepts and methods to contemporary problems in the world.

PHY 150 **Physics**
4 credits / 3 class hrs / 2 lab hrs

Physics is the foundation of all sciences and technologies. This algebra/trigonometry-based physics course is designed to serve Associate of Applied Science students in trade and technical occupations. Its purpose is to acquaint the student with basic physical concepts relating to measurement, the interaction of forces, work and energy, properties of fluids, thermodynamics, and power. Students gain a broad understanding through the use of unifying principles across multiple energy systems. There is emphasis on standard units of measurement, formulae, and written and spoken language associated with these basic physical concepts. Laboratory activities add to course content and reinforce course objectives. Prerequisite(s): Any 100-level math course

PHI 201 **Ethics**
3 credits / 3 class hrs

An introduction to morality, moral theory and moral thinking. Students will be exposed to basic moral concepts, theory, and reasoning before applying that knowledge to specific moral problems. Pre-requisite: ENG 111

PHI 206 **World Religions**
3 credits / 3 class hrs

World Religions is an introduction to the world's major religions through the study of their founders, beliefs, rituals, practices, sacred texts, and sects.

PLH 101 **Plumbing Technology**
3 credits / 3 class hrs

This course will introduce the student to the fundamental principles of plumbing technology. The course stresses quality plumbing installations along with the basic knowledge of how plumbing systems function with the relationship to the Maine State Plumbing Code. The course begins with safety, fundamentals of plumbing drainage, venting of the plumbing system, potable water pipe installation, subsurface drainage systems, pipe and fitting identification and several other basic principles of the art of plumbing. Common methods of pipe fitting assembly such as copper, IPS, PEX and PVC systems, drain waste and vent system fundamental and sizing, potable water fundamentals, fixture installation and plumbing service.

PLH 109 **Plumbing Lab I**
3 credits / 9 lab hrs

Provides hands-on training in several areas associated with the plumbing career. Beginning with the assembly of the common piping systems including copper, IPS, PEX and PVC, students will work on installation of installing the 'rough in' practices of plumbing drainage and water supplies, faucet and fixture installations and service along with basic plumbing systems. Co-requisite: PLH 101

PLH 113 **Pipefitting Calculations**
3 credits / 3 class hrs

Introduces students to pipe fitting mathematics with particular attention given to the plumbing and heating trades. Emphasis is to help the student develop a strong skill in commonly used pipe calculations. This course will particularly help candidates for the Maine plumbing journeymen or master license examination.

PLH 122 **Plumbing Code Review**
3 credits / 3 class hrs

Introduces the student to the Maine State Plumbing Code and explains each chapter in detail. Particular attention will be given to the sizing of DWV, potable and storm piping systems. This course is designed to be a preparation for the Maine Journeyman's exam.

PLH 123 **Plumbing Lab II**
3 credits / 9 lab hrs

This is a skills-based course which gives the student hands on training in many areas of the plumbing and pipe fitting trades. The majority of lab time will be used to develop skills in proper assembly and testing of potable hot and cold-water lines, DWV lines, various plumbing fixtures and appliances, domestic hot water sources, and faucet installation and repair. Pre-requisites: PLH 101, and PLH 109; Co-requisite: PLH 122

PLH 126 **Water Pumps & Water Treatment**
2 credits / 1 class hr / 2 lab hrs

This course will introduce students to fundamentals of residential water pumps and water treatment. Review of well types, the hydrological cycle, basic operation of jet and submersible pumps, tank and pump accessories, troubleshooting and a review of Maine laws that apply to installation of water pumps will be the major focus of the water pump portions of this course. Water treatment includes the installation of water softeners, reverse osmosis systems, Biolight systems, as well as water filtration. Maine State Well Drillers and Pump installers codes will also be covered.

PLH 209 **HVAC Controls**
2 credits / 1 class hr / 2 lab hrs

This course will introduce students to fundamental working concepts for comfort heating such as: oil burner parts, warm air heating installations, basic duct work, furnace and boiler controls and wiring, combustion analysis, heating mediums with a major concentration in hot water (hydronic) heat and radiant heat installations. The topics that will be included will be: hydronic (hot water) heating sources and emitters, hydronic piping arrangements, and electrical component wiring and control devices.

PLH 214 **Heating Technology I**
3 credits / 3 class hrs

This course will introduce students to fundamental concepts for

comfort heating such as: oil burner basics, warm air heating, fundamentals of heat, heat loss through the building envelope, calculating heat loss, combustion, heating mediums with a major concentration in hot water (hydronic) heat and radiant heat methods. The topics that will be included will be: oil burners, Hydronic heating systems design and sizing, heat transfer fundamentals, heating load estimates, hydronic (hot water) heating sources and emitters, hydronic piping arrangements, and electrical component wiring and control devices. Prerequisites: PLH122, PLH 123 or instructor's permission.

PLH 216 **Propane & Natural Gas I**
3 credits / 2 class hrs / 2 lab hrs

Meets the criteria for three fuel gas licenses. Students will study basic principles and practices, appliance servicing, and installation of propane and natural gas equipment. Each section will include examination for state licensing, which is necessary for employment in the field of propane and natural gas in Maine. The coursework consist of a combination of lectures, demonstrations, homework and tests.

PLH 218 **Heating Lab I**
3 credits / 9 lab hrs

This course will introduce students to fundamental working concepts for comfort heating such as: oil burner parts, warm air heating installations, basic duct work, furnace and boiler controls and wiring, combustion analysis, heating mediums with a major concentration in hot water (hydronic) heat and radiant heat installations. The topics that will be included will be: hydronic (hot water) heating sources and emitters, hydronic piping arrangements, and electrical component wiring and control devices. Prerequisite(s): PLH122, PLH 123 or instructor's permission; Corequisite(s): PLH214

PLH 219 **Propane & Natural Gas II**
3 credits / 2 class hrs / 2 lab hrs

This course is a continuation of PLH 216 and meets the criteria for additional fuel gas licenses. Students will study the basic principles and practices, appliance servicing and installation of propane and natural gas equipment. Each section will include examination for state licensing which is necessary for employment in the field of propane and natural gas in Maine. Pre-requisite: PLH 216

PLH 222 **Heating II**
5 credits / 2 class hrs / 9 lab hrs

A continuation of PLH 214, covering the following: fuel oil and its application to domestic burners; oil tanks and tank piping; fuel units; combustion theory; chimneys and draft; commercial oil burners; combustion efficiency testing; heating control wiring; heating system design and sizing; and customer satisfaction. Lab time will also be used to properly install control wiring. Pre-requisite: PLH 214 and PLH 218; Corequisite: PLH 225

PLH 225	Maine Oil & Solid Fuel Code 1 credit / 1 class hr	PMT 113	Print Reading for Machinists 2 credits / 2 class hrs
Introduces the student to the laws and rules that apply to all oil and solid fuel burning appliances in Maine. Discussions and lectures will be centered around the State of Maine rules book for the installation of oil and solid fuel burning appliances, National Fire Protection Association pamphlets #31 and #211, and portions of the National Electrical Code.		An introductory course in reading and understanding basic mechanical drawings in the machine trades industry. Actual industrial prints prepare the student for the real conditions found in a machine shop.	
PLH 226	Refrigeration & Air Conditioning 2 credit hrs / 1 class hr / 2 lab hrs	PMT 114	CNC Lathe Programing 2 credits / 2 class hrs
This course covers the fundamentals of refrigeration and air conditioning. Upon completing the course, students can test for the EPA 608 Certification. The students will be trained to safely use the tools required for the trade. Major topics discussed will be: refrigeration, heat pump installation and service, compressors, controls, refrigerants, along with hermetic systems. Considerable time will be spent on the refrigerant evacuation and re-fill and line testing.		CNC Lathe Programming introduces the student to basic CNC Mill programming with an emphasis on the following: coordinate system; G-Code motion commands; M-Code functions; cutting tool selection; machining conditions such as speeds, feeds, data points, tool nose compensation.	
PMT 110	3D Solid Modeling 2 credits / 1 class hr / 2 lab hrs	PMT 115	CNC Mill Setup 1 credit / 3 lab hrs
3D Solid Modeling is an introductory course in designing parts and preparing basic mechanical drawings used in the machine trades industry. Students will learn the proper use of software, drafting and design techniques and the graphic presentation of mechanical components. Students will learn to understand dimensioning, orthographic projection and isometric drawing. Students will use computer software to develop manufacturing parts and drawings, and a 3D printer to print parts.		CNC Mill Setup is an introductory course in the setup 3 axis CNC mills through practical application. Every aspect of machine setup is covered from selecting the starting stock to performing a first article inspection on the completed part. Students will load tools, set up work-holding fixtures, set work and tool offsets. Students will verify their setup is correct before machining by running a graphic simulation and above-part verification. They will cut the first piece and inspect their own work, adjusting offsets as necessary to produce a part within customer specification.	
PMT 111	CNC Mill & Lathe Operations 4 credits / 1 class hr / 9 lab hrs	PMT 117	CNC Lathe Setup 1 credit / 3 lab hrs
CNC Mill and Lathe Operations is an introductory course in operating Computer Numerical Control (CNC) mills and lathes, to produce a variety of machined components in work-like conditions. This course will focus on maintaining quality and safety standards; keeping records; maintaining equipment and supplies. Program training includes basic CNC operator skills, inspection, and process adjustments.		CNC Lathe Setup is an introductory course in the set up of 2 axis CNC lathes through practical application. Every aspect of the machine setup is covered from selecting the starting stock to performing a first article inspection on the completed part. Students will load tools, set up work-holding fixtures, set work and tool offsets. Students will verify their setup is correct before machining by running a graphic simulation and above-part verification. They will cut the first piece and inspect their own work, adjusting offsets as necessary to produce a part within customer specification.	
PMT 112	CNC Mill Programing 2 credits / 2 class hrs	PMT 119	Inspection 2 credits / 1 class hr / 3 lab hrs
CNC Mill Programming introduces the student to basic CNC Mill programming. Students will write simple programs to perform facing, contouring and hole-making operations for typical CNC Vertical Machining Centers. Emphasis is placed on developing an understanding of typical G and M codes used in modern CNC controls. Throughout the course, students will be required to perform calculations for speeds and feeds for various tooling and machining applications.		The Inspection course will provide the student with training in geometric dimensioning & tolerancing (GD&T) interpretation, and inspection, per the ASME Y14.5-2009 standard. This course also reinforces dimensional metrology practices, and introduces new methods such as Coordinate Measuring Machine (CMM), and FARO Arm inspection. With the use of precise inspection equipment, students will verify part quality and document results for quality control. This course provides the student with the complete fundamentals of geometric dimensioning and tolerancing (GD&T) concepts as adopted by ANSI and published by ASME. It builds on prior knowledge of blueprints and machined parts and applies that knowledge to "geometric toleranced" drawings. Students will learn the terminology and definitions of geometric dimensioning and tolerancing and how to apply its concepts. Prerequisite: PMT 113 or instructor's permission	

PMT 121 CNC Mill & Lathe Programing Setup & Operations
4 credits / 1 class hr / 9 lab hrs

CNC Mill and Lathe Programming, Setup & Operation is an intermediate course in operating Computer Numerical Control (CNC) mills and lathes, to produce a variety of machined components in work-like conditions. This intermediate course will further develop skills required to program, setup, and operate CNC mills and lathes. This course will utilize "live" work projects to provide student exposure to real-world machining applications, and introduce multi-axis applications such as thread milling, 4th-axis indexing, 5th-axis indexing, external threading, and boring. Prerequisites: PMT 111, PMT 112, and PMT 114, or instructor's permission

PMT 124 Basic CAM for Milling
2 credits / 1 class hr / 3 lab hrs

Basic CAM for Milling is an entry level course in CNC program and toolpath generation for milling machine applications using CAM software. By utilizing a graphical software package to generate part programs for a CNC mill, students will learn how to create toolpath using solid models. The emphasis on the course is placed on learning to use the CAM software to select tools, manipulate part geometry, and convert screen graphics into a CNC program. This course will focus on basic 2-1/2-axis milling applications. Prerequisite: PMT 112 or instructor's permission

PMT 126 Basic CAM for Turning
2 credits / 1 class hr / 3 lab hrs

Basic CAM for Turning is an entry level course in CNC program and toolpath generation for turning center applications using CAM software. By utilizing a graphical software package to generate part programs for a CNC mill, students will learn how to create toolpath using solid models. The emphasis of the course is placed on learning to use the CAM software to select tools, manipulate part geometry, and convert screen graphics into a CNC program. This course will focus on basic 2-axis turning applications. Prerequisite: PMT 114 or instructor's permission

PMT 215 Auxiliary Devices for CNC Mills
3 credits / 1 class hr / 6 lab hrs

Auxiliary Devices for CNC Mills is an intermediate course with a focus on setting up 4th-axis indexers, 5th-axis indexers, spindle probes, and table probes. Prerequisites: PMT 111 and 112, or instructor's permission

PMT 217 Auxiliary Devices for CNC Lathe
2 credits / 1 class hr / 3 lab hrs

Auxiliary Devices for CNC Lathe is an intermediate course with a focus on setting up a probe arm, tailstock, bar puller, and parts catcher. Prerequisites: PMT 111 and 114 or instructor's permission

POL 101 American Government
3 credits / 3 class hrs

Introduces the origins and development of the American system of government. Special consideration will be given to the United States Constitution, the powers and limitations of the executive, legislative and judicial branches of government, the political process and the policy-making process.

PSY 101 General Psychology
3 credits / 3 class hrs

Introduces the field of psychology as a study of human behavior. Through lecture and discussion in such areas as learning, human growth and development, an introduction of motivation, sensation / perception, personality, emotions, behavior disorders and self and society are presented.

PSY 207 Developmental Psychology
3 credits / class hrs

The development of the individual is an exciting process, beginning at birth and continuing through the intricate changes of growth and aging. The study of the life span is also intriguing because each of us, and everyone we care about, is constantly developing. This course therefore includes the biosocial, cognitive and psychosocial domains of human development. Pre-requisite: PSY 101

PSY 209 Abnormal Psychology
3 credits / 3 class hrs

Students will demonstrate mastery of past and current theoretical perspectives on abnormal behavior. The course will evaluate issues relating to classification, etiology, and treatment of basic abnormal behaviors identified in the diagnostic and statistical manual. Case studies will be examined as they relate to various disorders. Pre-requisite: PSY 101

SAE 117 Occupational Safety
1 credit / 1 class hr

This course is intended to provide a variety of training on OSHA 1910 General Industry safety and health standards to entry level workers. The class is designed to emphasize hazard identification, avoidance, control and prevention to students. Students successfully completing all of the requirements will be eligible for the 10-hour OSHA certification.

SAE 121 Industrial Safety
3 credits / 3 class hrs

Designed as a course to review 1910 standards, the causes of industrial and occupational accidents, and preventive measures. This includes governmental codes and regulations, ways to develop company safety and related procedures in areas such as lockout/tagout, machine guarding, hazard communications, personal protective equipment and recordkeeping. Students successfully completing all of the requirements will be eligible for the 30-hour Outreach Program Certification card.

SES 129	Office Procedures 3 credits / 3 class hrs	TTE 251	Trade Internship 1 credit
Includes lectures, discussion and/or experience concerning office-support topics; technical and knowledge; communication, problem-solving, compilations, office-support, employment, and critical-thinking skills. A training/teaching presentation and a program-specific application project are included. Pre-requisite: CIS 113		Provides the student with on-the-job training at an approved worksite in an occupational field directly related to the student's major. At least 45 clock hours must be completed for 1 credit. To qualify for an internship, a student in an associate degree program must have completed 30 credits of course work, have attained a 2.5 GPA, and must be recommended by the department chair and course instructor. Before registering, students must meet with the course instructor to determine internship site and process paperwork.	
SOC 111	Sociology 3 credits / 3 class hrs	TTE 252	Trade Internship 2 credits
Introduces students to sociology, the "science of society," and its approach to human social life. The course shows students how sociologists conduct research, and it describes the basic concepts and theories sociologists use to explain the social world.		Provides the student with on-the-job training at an approved worksite in an occupational field directly related to the student's major. At least 90 clock hours must be completed for 2 credits. To qualify for an internship, a student in an associate degree program must have completed 30 credits of course work, have attained a 2.5 GPA, and must be recommended by the department chair and course instructor. Before registering, students must meet with the course instructor to determine internship site and process paperwork.	
SOC 215	Social Issues & Problems 3 credits / 3 class hrs	TTE 253	Trade Internship 3 credits
An introduction to the contemporary social issues and problems in the United States, with emphasis on the underlying causes of and competing solutions to each issue. Issues to be discussed include the environment, economics, politics, healthcare, and inequality.		Provides the student with on-the-job training at an approved worksite in an occupational field directly related to the student's major. At least 135 clock hours must be completed for 3 credits. To qualify for an internship, a student in an associate degree program must have completed 30 credits of course work, have attained a 2.5 GPA, and must be recommended by the department chair and course instructor. Before registering, students must meet with the course instructor to determine internship site and process paperwork.	
SPA 101	Elementary Spanish I 3 credits / 3 class hrs	WEI 101	Introduction to Welding 3 credits / 2 class hrs / 2 lab hrs
By using the five aspects of language learning; cultural awareness/appreciation, speaking, listening, reading, and writing, the student will begin to attain an understanding of and ability to use the Spanish language in a culturally appropriate manner.		This is an introductory welding course that helps students develop a basic knowledge of welding processes. An introduction to gas welding techniques including oxy-acetylene welding, cutting, and plasma cutting is provided. Students are also introduced to the arc welding process. Discussion of equipment and materials used is also provided. Lab activities provide practice in developing an understanding of the equipment, proper selection of the welding process determined by materials being joined, and the differences in technique necessary for welding in different positions. Safe handling of welding equipment and supplies is strongly emphasized as is overall shop safety.	
SPA 102	Elementary Spanish II 3 credits / 3 class hrs	WEI 103	Welding for Automotive Technology 3 credits / 2 class hrs / 2 lab hrs
By using the five aspects of language learning; cultural awareness/appreciation, speaking, listening, reading, and writing, the student will begin to attain an understanding of and ability to use the Spanish language in a culturally appropriate manner. Pre-requisite: SPA 101 or instructor's permission		This course continues to familiarize the student with building construction materials and methods, with an emphasis on sustainable building technology. Students will have practical experience working with a variety of materials and building construction products. Heat loss analysis for a residential or light commercial building will be conducted. Pre-requisite: TEC 112	
TEC 112	Building Science I 3 credits / 1.5 class hrs / 3 lab hrs		
Introduces students to appropriate materials and methods as found on residential and light commercial construction projects. Units of instruction include: site work, concrete, foundations, masonry, framing systems, and roofing. Environmentally sustainable construction materials will be highlighted.			
TEC 123	Building Science II 3 credits / 1.5 class hrs / 3 lab hrs		



Faculty & Staff

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BSN, MSN, University of Maine Orono
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MSB, Husson College

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Wendy Caverhill

Business Office Manager
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BS, Husson College

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BA, University of Maine Presque Isle

Julie Edgecomb-Clark

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Shannon Cook

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BS, Husson University

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AAS, Northern Maine Technical College
AAS, Pittsburg Institute of Mortuary Science/Funeral Directing
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BA, MEd., University of Southern Maine

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MS, Husson University

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MS, Husson University

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MATL, University of Southern Mississippi

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AA, Northern Maine Community College
AS, Southern Maine Community College
AS, Southern Maine Community College

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Nicole Poulin

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Tammy Putnam

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Director of Smith Wellness Center
AAS, Northern Maine Vocational Technical Institute
BA, University of Maine Presque Isle
MEd., Antioch University

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BA, University of Maine Presque Isle
BLS, University of Maine Presque Isle
Certified Global Career Development Facilitator
ASFA Certified Personal Trainer

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Manager of Energy & Information Systems
AAS, Northern Maine Technical College

Ann Spinney

Assistant Dean of Learning Resources
BM, Oberlin College
MM, Northwestern University
MS, Archives Management, Simmons School of Library and
Information Science
Ph.D. Harvard University

Sarah Stackhouse

Director of Admissions and Outreach
BS, University of Maine Presque Isle
MBA, Husson University

Angela Wardwell

Events and Test Center Coordinator
AAS, Northern Maine Vocational Technical Institute

Michael Williams

Director of Finance
BS, University of Maine Orono
Certified Public Accountant
Certified Internal Auditor

David Wyman

Senior Programmer Analyst
AA, University of Maine Fort Kent
AAS, Northern Maine Community College
BS, University of Maine Orono
MBA, Husson University





Professional Governance

GOVERNANCE

The college is governed by the Maine Community College System Board of Trustees Their business affiliation and their location are:

Joyce Maker
(Chair)
Calais
Washington County Community College (Retired)

Pender Makin
Commissioner
(Ex officio, voting member)
Maine Department of Education

Peter DelGreco
(Vice Chair)
North Yarmouth
President & CEO
Maine & Company

Laura Fortman
Commissioner
(Ex officio, non-voting member)
Maine Department of Labor

Dr. Mark Fourre
Camden
President
Coastal Healthcare Alliance

Kossi Gamedah
Falmouth
SVP, Retail Operations
Goodwill Northern New England

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Augusta
(Retired)

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President & CEO
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Jean Ginn Marvin
Scarborough
Innkeeper
Nonantum Resort

Elizabeth Neptune
Indian Township
Independant Consultant

Anne Roosevelt
Embden
CEO Goodwill of No. New England (Retired)

Kate Rush
Newport
Vice President
Coorporate Development Tilson

Cheryl Wendelken
Portland
Director
Brooks Family Foundation

Valerie Bilogue Minkala
Student Trustee
Presque Isle

**Maine Community College System
323 State Street
Augusta, Maine 04330**

(207) 287-1070

Academic Calendar

Northern Maine Community College Academic Calendar 2022 - 2023

Fall 2022

August	24 & 25 29	Faculty Administrative Days (No Classes) First Day of Classes
September	5 6 23	Labor Day (No Classes, Offices Closed) End of Add/Drop Grades Due for Spring 2021 Incomplete Courses
October	10 & 11 14 21	Indigenous Day (No Classes, Offices Closed Oct 10) Open House Mid-Semester
November	11 18 23 - 25	Veterans' Day Observed (No Classes, Offices Closed) Last day to drop classes without academic penalty Thanksgiving Break (No classes, Offices Closed Nov. 24 & 25)
December	16 20	Last Day of Classes (End at Noon) Grades Due by Noon

Spring 2023

January	12 16 17 25	Faculty Administrative Days (No Classes) Martin Luther King Holiday First Day of Classes End of Add/Drop*
February	3 20 21 – 25	Grades Due for Fall 2021 Incomplete Courses President's Day (No Classes, Offices Closed) Winter Break (No Classes)
March	10	Mid-Semester
April	3 – 7 14 17	Spring Break (No Classes) Last day to drop classes without academic penalty Patriot's Day (No Classes, Offices Closed)
May	10 12 13	Last Day of Classes (End at Noon) Grades due by Noon Graduation

All day and evening classes will meet on all scheduled days unless designated a "No Class" day.

**If you drop a class after the end of the add/drop period, you will be charged tuition and fees.*

If you have questions please see your academic advisor.

Northern Maine Community College Academic Calendar 2023 - 2024

Fall 2023

August	23 & 24 28	Faculty Administrative Days (No Classes) First Day of Classes
September	4 6 22	Labor Day (No Classes, Offices Closed) End of Add/Drop Grades Due for Spring 2022 Incomplete Courses
October	9 & 10 13 20	Indigenous Day (No Classes, Offices Closed Oct 9) Open House Mid-Semester
November	10 17 22 - 24	Veterans' Day Observed (No Classes, Offices Closed) Last day to drop classes without academic penalty Thanksgiving Break (No classes, Offices Closed Nov. 23 & 24)
December	15 20	Last Day of Classes (End at Noon) Grades Due by Noon

Spring 2024

January	11 15 16 25	Faculty Administrative Days (No Classes) Martin Luther King Holiday First Day of Classes End of Add/Drop*
February	2 19 20 – 24	Grades Due for Fall 2021 Incomplete Courses President's Day (No Classes, Offices Closed) Winter Break (No Classes)
March	8	Mid-Semester
April	1 – 5 12 15	Spring Break (No Classes) Last day to drop classes without academic penalty Patriot's Day (No Classes, Offices Closed)
May	8 10 11	Last Day of Classes (End at Noon) Grades due by Noon Graduation

All day and evening classes will meet on all scheduled days unless designated a "No Class" day.

**If you drop a class after the end of the add/drop period, you will be charged tuition and fees.
If you have questions please see your academic advisor.*

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Campus Directory

Academic Affairs

Academic Dean	Angela Buck	768-1128
Senior Administrative Specialist	Abby Clark	768-2812

Academic Success Center

Coordinator	J.R. Kierstead	768-2761
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Admissions

Director	Sarah Stackhouse	768-2782
Assistant Director	Jacqueline Martin	768-2771
Counselor	Abigail Frost	768-2789
Admissions Specialist	Nicole Poulin	768-2785
On-Course for College		768-2782

Arts & Sciences

Department Chair	David Raymond	768-2773
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Barnes & Noble Bookstore

Manager	Kimberly Filiatreault	768-2835
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Business & Industry

Coordinator		768-2766
-------------	--	----------

Business Office

Dean of Finance	Michael Williams	768-2712
Manager	Wendy Caverhill	768-2708

Business Technology

Department Chair	Dwight Clayton	768-2738
------------------	----------------	----------

Food Services

Director	Corey Bourgoin	768-2716
College Store		768-2824

Continuing Education

Assistant Dean of Continuing Education	Leah Buck	768-2768
Administrative Assistant	Holly Grant	768-2845

Counseling Office

Director	Tammy Nelson	768-2747
Student Navigator	Ashley Hall	768-2786
Counselor	Johna Lovely	768-2829
Career Specialist	Tyna Rolon	768-2793
Administrative Specialist	Teila Pimental	768-2839

Development & College Relations

Dean of Development & Public Affairs	Griffin Goins	768-2809
Director of Marketing & Communications		
Administrative Specialist	Kelly Dooner	768-2810

Emergency Medical Services

Department Chair	Andrew Gagnon	768-2753
Administrative Specialist		768-2754

Events

Coordinator	Angela Wardwell	760-1125
-------------	-----------------	----------

Facilities

Manager	Lee Griffin	768-2702
---------	-------------	----------

Financial Aid

Director	Brian Hall	768-2707
Assistant Director	Cheryl Lamoreau	768-2790

Houlton Higher Education Center

Director	Joe Fagnant	521-3100 (ext. 3150)
Advisor	Ken Ervin	521-3100 (ext. 3152)
Administrative Assistant	Patti Sloat	521-3100 (ext. 5)

Human Resources / Payroll

Coordinator	Lindsay LeBlanc	768-2739
-------------	-----------------	----------

Library

Assistant Dean of Learning Resources	Ann Spinney	768-2734
Circulation Desk		768-2718

Nursing & Allied Health

Department Chair	Eileen McDougal	768-2750
Administrative Specialist		768-2754

President's Office

President	Timothy Crowley	768-2811
-----------	-----------------	----------

Residential Life

Director	Jon Blanchard	768-2795
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Security

Manager	Peter Goheen	540-5719
Officer	George Brigham	551-5765
Office		760-1108

Student Services

Dean of Students	Matthew Grillo	768-2792
Registrar	Shannon Cook	768-2791
Administrative Specialist	Katherine Gordon	768-2787

Technology

Dean of Technology & Facilities	Barry Ingraham	768-2706
Manager of Energy & Information Systems	Robert Smith	768-2851
Information Specialist	Jarrod Flanders	768-2857
Information Specialist	Chris Perry	768-2722
Sr. Program Analyst	David Wyman	768-2705
Senior Administrative Coordinator	Julie Edgecomb Clark	768-2760

Testing Center

Coordinator	Angela Wardwell	760-1125
-------------	-----------------	----------

Trade & Technology Occupations

Department Chair	Pam Buck	768-2763
Administrative Specialist		760-1123

*For a more complete listing of employee phone numbers, including faculty,
please see your Student Handbook or visit nmcc.edu*

Campus Map

