Find it here.

Northwestern Michigan College
www.nmc.edu
Mission

Northwestern Michigan College provides lifelong learning opportunities to our communities.

Institutional Accreditation

Accredited by the Higher Learning Commission and a member of the North Central Association.
30 N. LaSalle, Suite 2400
Chicago, IL 60602
(800) 621-7440
www.ncahigherlearningcommission.org

Program Accreditations

- American Culinary Federation
- American Dental Association Commission on Dental Accreditation
- Association of Collegiate Business Schools and Programs
- Bureau of Automotive Regulation–State of Michigan
- Commission on Accreditation of Allied Health Education Programs
- Department of Veterans Affairs
- Federal Aviation Administration/Federal Aviation Regulation Part 141 approved
- International Accreditation by United States Coast Guard
- International Accreditation by the United States Maritime Administration
- Master National Automotive Technicians Education Foundation Certified
- Michigan Board of Nursing
- Michigan Commission on Law Enforcement Standards
- Michigan Corrections Officers Training Council

Non-Discrimination Policy

NMC does not discriminate in admission, campus activities, education, employment, housing, public accommodation, or public service on the basis of age, color, disability, handicap, height, marital status, national origin, political affiliation, race, religion, gender, sexual orientation, veteran’s status, or weight. No act of retaliation shall occur to any person making a charge, filing a complaint, testifying or participating in any discrimination investigation or proceeding.

This catalog is in effect starting Fall Semester 2009 through Summer Session 2011. The contents of this catalog are accurate at the time of printing, April 2009; for most current information, consult the website: www.nmc.edu. The NMC Board of Trustees reserves the right to make changes without notice.
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Final Payment Due..................................................... M, Aug. 10
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Final Registration ......................................................... Varies based on session
Opening Conference/Prof Dev.................................... M, Aug. 24
Classes Begin ............................................................ M, Aug. 24
1st 7 ½ week session.............................................. S-M, Aug. 29-Oct. 22
Classes Cancelled..................................................... S-U, Sept. 5-6
Labor Day-College Closed........................................ M, Sept. 7
Faculty Professional Dev........................................... T, Oct. 20
(No Classes Day or Evening)
2nd 7 ½ week session.............................................. W-U, Oct. 23-Dec. 20
Thanksgiving Break.................................................. W-U, 5 pm Nov. 25-Nov.29
Semester Ends .......................................................... U, Dec. 20
Grades Entered ......................................................... W, 1 pm, Dec. 23
College Closed-Holidays..............................................

Spring Semester 2010
Online Registration Begins......................................... M, Nov. 9, 2009
Face-to-Face Registration Begins................................ M, Nov. 16, 2009
Opening Conference/Prof Dev.................................... M, Jan. 4, 2010
Final Payment Due..................................................... R, Jan. 5
Drop Date for Non-Payment ...................................... W, Jan. 6
Final Registration ......................................................... Varies based on session
Classes Begin ............................................................ M, Jan. 11
1st 7 ½ week session.............................................. M-U, Jan. 11-Mar. 2
2nd 7 ½ week session.............................................. M-U, Mar. 3-May 2
Spring Break ............................................................. M-U, Mar. 29-April 4
Spring Holiday-College Closed................................. F, April 2
Honors Convocation.................................................. F, April 30
Commencement.......................................................... S, May 1
Semester Ends ........................................................... U, May 2
Grades Entered ......................................................... W, 1 pm, May 5
NMC BBQ ................................................................. U, May 23

Summer Session 2010
Online Registration Begins......................................... M, Nov. 9, 2009
Face-to-Face Registration Begins................................ M, Nov. 16, 2009
Final Payment Due..................................................... M, May 3, 2010
Drop Date for Non-Payment ...................................... T, May 4
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Welcome

Why should YOU attend NMC?

• More than 90 percent of NMC graduates and transfer students consistently report accomplishing their educational goal and say that NMC is a good value for the money
• Small classes, personal attention: NMC’s average class size is 20 students
• Dedicated faculty members averaging 15 years of teaching experience at NMC
• More than 60 programs of study
• Online learning options
• On-campus housing options
• The NMC Foundation, thanks to local donors, offers more scholarship dollars to more students than any community college in Michigan
• The average earnings of a student with an NMC Associate Degree are more than one-third higher than a student with a high school diploma
• Fifty bachelor’s, master’s and doctoral degree programs available at NMC’s University Center, the largest higher education partnership in Michigan, with 10 universities

NMC. Find it here.

“NMC’s faculty and staff take pride in seeing students achieve their goals. Whatever you’re looking for, we are dedicated to helping make sure you find it here.”

Timothy J. Nelson
President

“You get a lot for your money. NMC allowed me to build a career without having to leave the city.”

Benjamin Marentette
NMC 1999-2001
B.A., Spring Arbor College at NMC’s University Center, 2003
MBA - Lawrence Tech at NMC’s University Center, 2006
Overview

History
Northwestern Michigan College was founded in 1951 by local citizens who wanted to provide an affordable college education for area residents. Starting out in temporary headquarters at the airport terminal building in Traverse City, NMC now has a spacious 100-acre main campus located east of downtown, between the east and west arms of Grand Traverse Bay. Three additional campuses provide facilities for comprehensive programs and community services:

- **University Center** - Opened in 1995, this facility on Boardman Lake offers bachelor's completion programs and advanced degrees in partnership with 10 Michigan colleges and universities.

- **Aero Park Campus** - Located at Traverse City's Airport Industrial Park, facilities there house NMC's aviation, workforce development and trade and technical programs.

- **Great Lakes Campus** - Opened in 2003 on West Bay, facilities include the Great Lakes Maritime Academy, the Great Lakes Culinary Institute, the Great Lakes Water Studies Institute and the Hagerty Center.

Location
Traverse City, Michigan is in the northwestern part of Michigan's lower peninsula and is accessible by U.S. 31/M-37 from the north and south and M-72 from the east and west. Traverse City is the hub of the growing five-county region, home to about 165,000 year-round residents. Traverse City is known as the Cherry Capital of the World due to the prevalence of tart cherry trees, and as a four-season resort area.

Enrollment
Approximately 4,300 students enroll in credit courses each semester. An additional 10,000 enroll in non-credit courses and workshops annually. About half of NMC’s academic students are between 18 and 21 years old. The average student age is 26, factoring in the many adults in the region who choose to continue their education. Grand Traverse County is home to 52 percent of enrolled students. The balance come from other Michigan counties, outside Michigan, and foreign countries.

Calendar
NMC operates on a semester calendar. There are two 15-week semesters, fall and spring, plus many short-format offerings and shorter sessions during the summer.

Degrees
NMC offers Associate in Science and Arts, Associate in Applied Science, Associate in General Studies, Associate Degree in Nursing and career certificates. The NMC University Center offers bachelor's completion and advanced degrees. NMC has committed to a statewide agreement that helps students transfer credits to participating four-year colleges and universities.

Campus Housing
NMC provides a residence hall, plus apartment buildings on main campus.

Financial Aid
More than half of NMC students receive financial aid through scholarships, loans, grants and on-campus employment.
Main Campus
1701 East Front Street, Traverse City, Michigan 49686

APARTMENT BUILDINGS
NMC has three apartment buildings providing one and two bedroom apartments for married couples and single parents.

BECKETT BUILDING
This building was named for James J. Beckett, Chair Emeritus of the NMC Board of Trustees and longtime volunteer on behalf of the college. The building has six general purpose classrooms, three multi-media classrooms, one computer lab, one distance learning classroom, and one writing center. It also has faculty offices, a conference room and several study areas.

BIEDERMAN BUILDING
This building contains general purpose classrooms, student interaction areas, one computer lab, Counseling Services, Student Health Services, and faculty offices for Health Occupations, Science and Math. It is named for NMC founder Les Biederman, chair of the first Board of Trustees.

DENNOS MUSEUM CENTER
This major museum facility, named for donors Michael and Barbara Dennos, includes three galleries for changing exhibitions, an interactive gallery for children, and a gallery for NMC’s collection of Inuit art. It also features a classroom-size theater and sculpture court gallery. The 367-seat William and Helen Milliken Auditorium has an open stage and offers performance space for NMC music, drama, and dance departments as well as community and visiting groups.

EAST HALL
This residence hall has rooms for about 200 students and offices for the housing staff. It was remodeled in 2002.

FOUNDERS HALL
The office of Institutional Advancement, NMC Foundation, Public Relations, and two conference rooms are located here.

HEALTH AND SCIENCE BUILDING
This 54,700 square-foot building features state-of-the-art teaching laboratories for science courses such as chemistry, biology, physics, and geology; and for health courses such as dental and nursing. There are also six general purpose classrooms and many “interactive spaces” for students in study rooms and hallways. The spacious lobby features the NMC Welcome Center and the building is connected to the Biederman Building at its southeast corner.

OKERSTROM FINE ARTS BUILDING
This building has studios, classrooms and a Macintosh computer lab for art and music, as well as an 84-seat recital hall. In 2000 this building was named in honor of Shirley S. Okerstrom, former member and chair of the NMC Board of Trustees and a supporter of the arts.

OLESON CENTER FOR CONTINUING EDUCATION
This conference center, remodeled in 2006, features three meeting rooms which can be used separately or as one large room, a teaching kitchen and a multi-purpose room. The Oleson Center was named in honor of the Gerald and Frances Oleson family which has provided long-term support of the college through the annual Barbecue and other donations.

Dennos Museum Center
Facilities

Main Campus continued

OSTERLIN BUILDING
The Osterlin Building was named after Dr. Mark Osterlin and Mrs. Helen Osterlin. In this building are the Osterlin Library, the Center for Learning, Educational Media Technologies, Career and Employment Services, classrooms and computers.

POWER HOUSE
This small brick building houses the power plant for the college.

RAJKOVICH PHYSICAL EDUCATION CENTER
This building has a gymnasium, fitness center, dance studio, and classrooms. In 1969, it was named after Nick Rajkovich, a former faculty member who developed the NMC physical education program. In 2000, Frances Rajkovich’s name was added to the building in recognition of her generous support of NMC.

SCHOLARS HALL
This building contains general purpose classrooms, the photography laboratory, faculty offices for Communications and Social Sciences, and many student study areas.

TANIS BUILDING
This building was named for Preston N. Tanis, the first president of NMC who directed the college from 1951-1970 and wrote its first history. In this building are the offices of the president, educational services, administrative services, admissions and financial aid, registration and records, computer services, human resources and the business office.

WELCOME CENTER
This information headquarters is located in the lobby of the Health and Science Building.

WEST HALL & STUDENT CENTER
Remodeled in 2002, West Hall houses the college’s food service, student and staff dining rooms, the campus bookstore as well as offices for the college radio station, magazine, student government, and honors program.

WISE MEMORIAL CLOCK TOWER
Located south of East Hall on the main campus, the clock tower was named for benefactors Harold and Imogene Wise and was erected with private donations from NMC founder Les Biederman, the Wise family, and NMC faculty and staff.

Great Lakes Campus

715 East Front Street at Barlow Avenue, Traverse City

This facility on the West Bay waterfront houses the Great Lakes Maritime Academy, the Great Lakes Culinary Institute, the Great Lakes Water Studies Institute, and the Hagerty Center. The two buildings are connected by a glass exhibition hall to preserve views of the bay. The harbor is being redeveloped to improve its function and accessibility.

HAGERTY CENTER
The Hagerty Center is a full-service banquet and conferencing facility located at the Great Lakes Campus, providing state-of-the-art technology and a professional staff. For more information, contact a Hagerty Center representative at (231) 995-3100.
Aero Park Campus
2600 Aero Park Drive, Airport Industrial Park, Traverse City

AUTOMOTIVE TECHNOLOGY SERVICE BUILDING
This facility contains the Automotive Service Technology Program and NMC Shipping and Receiving.

AVIATION BUILDING
This building contains the Flight Training Device (FTD) for the NMC Flight Program.

PARSONS-STULEN MICHIGAN TECHNICAL EDUCATION CENTER (M-TEC)
This facility provides training in the areas of manufacturing, construction, aviation, and information technology. Named after John T. Parsons and Frank L. Stulen, local innovators who created “numerical control,” M-TECsm contains a flexible learning environment, including a “high bay” area for construction and manufacturing, plus computer labs, an interactive television classroom, conference room and faculty and staff offices. Other offerings include organizational training and research.

Observatory
1753 Birmley Road, between Garfield and Keystone roads, south of Traverse City

ROGERS OBSERVATORY
This facility is named after former science/math division director and instructor Joseph H. Rogers, who spearheaded construction. The structure contains a classroom area, dome, telescope and darkroom. It was constructed to house astronomy classes and provide an educational program for community groups. The Grand Traverse Astronomical Society conducts regular programs at the Observatory.

University Center Campus
2200 Dendrinos Drive, off Cass Road between 14th Street and South Airport Road, Traverse City

This 30-acre parcel was purchased in 1989 and was formerly owned by Sara Lee Corporation.

SCHMUCKAL BUILDING
This building is named after generous NMC benefactors, Arthur M. and Mary E. Schmuckal. It houses the NMC University Center which offers more than 40 bachelor’s completion and advanced degree programs in partnership with 10 Michigan universities and colleges. Also located at the University Center Campus is NMC Extended Educational Services, which provides community and continuing education offerings. Attached to the Schmuckal Building is the Northwest Michigan Council of Governments Building (1995) which added a new second floor in 2000 for University Center classes.
Welcome

Administrative Offices

BOOKSTORE & CLASS SUPPLIES
The Bookstore is located in West Hall. (231) 995-1285
Check-cashing policy: The Bookstore will gladly accept your check when you provide one of the following: Picture I.D., Driver’s License, State I.D., Dining Hall Pass, Credit card, Work I.D., Voter Registration card, Current semester NMC student I.D. card.

Bookstore Refund Policy: Refunds will be given through the second week of the semester only. You are entitled to a full refund if: 1) You drop a class or withdraw from the college; 2) Your class has been cancelled. To receive a refund, you must provide the original cash register/financial aid receipt.

BUSINESS OFFICE
Accounts payable and payroll. Tanis Building, lower level, (231) 995-1140 fax (231) 995-1681.

CASHIER SERVICES
Payment for tuition, fees, parking permits, accounts receivable information. Tanis Building, main floor, (231) 995-1085 or fax (231) 995-1570.

INSTITUTIONAL ADVANCEMENT
Marketing, public relations, publications, development, alumni, grants, NMC Barbecue. Founders Hall, (231) 995-1021 or 877-922-1021.

EDUCATIONAL SERVICES
Vice President for Educational Services. Tanis Building, lower level, (231) 995-1543.

HUMAN RESOURCES
Employee information, employment policies, employment opportunities, benefits. Tanis Building, lower level, (231) 995-1143.

INFORMATION TECHNOLOGY SERVICES
Computer services and information. Tanis Building, lower level, (231) 995-1044.

PRESIDENT’S OFFICE
Tanis Building, main floor, (231) 995-1010.

STUDENT SERVICES
Admissions, financial aid, records/registration, counseling, on-campus housing, center for learning, career/employment services, health services, student activities. Dean for Student Services is in the Tanis Building, main floor, (231) 995-1046.

WELCOME CENTER

Campus Services/Information

CANCELED CLASSES
Weekdays: Call (231) 995-1100, or www.nmc.edu/students
Weekends: Call your instructor’s campus telephone number directly. Your instructor will update his/her voicemail greeting with class cancellation information.

EMERGENCY TEXT MESSAGE NOTIFICATION
NMC offers an optional system for students and employees to receive Emergency Alert text message via cell phone. You can also choose to receive notifications about campus closures due to weather or other factors. To opt in:
1. Log in to NMC Self-Service: www.nmc.edu/selfservice
2. Click on the “Personal Information” tab
3. Click on “Text Message Opt-In” and follow directions

FOOD SERVICE
Located in West Hall. Vending machines are located in most campus buildings. Main floor, (231) 995-1678.

LOST AND FOUND

PARKING
All NMC students, faculty and staff must display a valid parking permit to park in any main campus lot during Fall and Spring semesters. No NMC permit is required on weekends. Vehicles with valid permits may use any lot that is not designated for visitors, special needs or restricted parking. Enforcement of parking rules and regulations will be by the City of Traverse City and Northwestern Michigan College Campus Security.

Permits and a copy of the NMC Parking Policy are available at the Cashier’s Office and the NMC Welcome Center. Guest permits are available at the Cashier’s Office, the Admissions Office, or the NMC Welcome Center. Any questions or comments about NMC parking policies should be directed to (231) 995-1694. See map on inside back cover of catalog for parking lot locations.

PUBLIC TRANSPORTATION
Bay Area Transportation Authority (BATA) busses have a schedule of stops on the NMC campus plus call-in service. BATA, (231) 941-2324.

STUDENT ASSISTANCE PROGRAM
Referral/resource program for all health/wellness needs. Peer education and support groups. Student Activities Office, East Hall, main floor, (231) 995-1405.

TELEVISION MONITORS
Current information on class cancellations, activities, and events, available on television monitors in each classroom building.
Learning Opportunities

Northwestern Michigan College provides a wide variety of learning experiences to more than 50,000 learners each year. Learners come to NMC for academic degrees, personal enrichment, organizational training and cultural activities.

While this catalog primarily contains information about associate degrees and certificates, this section offers an overview of all the learning opportunities and community resources available at NMC. You can also visit www.nmc.edu for more information about these other facets of NMC.

Academic Degrees
• Transfer options and occupational specialty programs. Use this catalog, a Schedule of Classes or visit www.nmc.edu/programs
• NMC’s University Center offers Bachelor’s completion and advanced degrees. Visit www.nmc.edu/ucenter

Online & Other Flexible Learning Options
Choose classes that fit your life and learning style. www.nmc.edu/online

Extended Educational Services
Non-credit, short-format courses. Visit www.nmc.edu/ees
• Professional development
• LIFE Academy for older adults
• College for Kids
• Continuing education certificates

Community Resources
You don’t have to enroll to take advantage of all NMC offers. See an exhibit at the Dennos Museum Center, attend an event at the Hagerty Center, stargaze at Rogers Observatory or listen to WNMC radio.
• Dennos Museum Center - www.dennosmuseum.org
• Great Lakes Water Studies Institute - www.nmc.edu/wsi
• Hagerty Center - www.nmc.edu/hagerty
• Lobdell’s: A Teaching Restaurant - www.nmc.edu/culinary
• Osterlin Library - www.nmc.edu/library
• Rogers Observatory - www.nmc.edu/observatory
• Training and Research - www.nmc.edu/training
• WNMC radio - www.wnmc.org

Whatever your learning needs, you can “Find it here” at NMC.
Academic Area: Aviation

Aviation

An FAA-approved flight training school, the Aviation Program combines flight training, ground school and liberal arts courses and awards an Associate in Applied Science degree. Flight training begins the first semester and you’ll learn to fly in all four seasons. The curriculum includes completion of Private, Instrument, and Commercial Certificates and Multi-engine and Flight Instructor Ratings, plus specialty courses designed to increase your hiring potential. A fleet of single and multi-engine aircraft provide hands-on experience enhanced by a level 6 state-of-the-art flight simulator. NMC has relationships with many aviation businesses to increase hiring opportunities after graduation.

Degrees Available
Associate in Applied Science (AAS)

Transfer Opportunities
NMC’s University Center offers two bachelor’s degree program options for aviation students via partners Ferris State University and Davenport University. See page 22-23. After two years at NMC, you may move to their campuses, or remain in Traverse City and continue to pursue your degree at the University Center. Aviation faculty can advise you on bachelor’s degree completion programs at other schools.
Business

Business programs prepare you for immediate employment in today’s competitive, complex and changing business world or to transfer to a four-year school. The curriculum includes business-specific classes and liberal arts studies.

Students planning to enter the job market upon graduation generally pursue an Associate in Applied Science (AAS) degree or a Certificate of Achievement. Those who plan to transfer to four-year institutions to pursue a bachelor’s degree should refer to the requirements for the Associate in Science and Arts (ASA) degree. During your first semester at NMC, you should consult a counselor or academic advisor for guidance in scheduling courses to meet your objectives.

Degrees Available
Associate in Applied Science (AAS)
Associate in Science and Arts (ASA)
Certificates of Achievement

Occupational Specialty Programs
Accounting (AAS) ................................................................. 70
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  General Business, Insurance, Management, and Marketing
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Transfer Options (Follow ASA Degree Requirements)
Accounting .................................................................................. 66
Business Administration ................................................................. 66

Online & Other Learning Options
• AAS Business Administration - General Business
• ASA degree - Depending on the transfer college requirements, many required courses can be taken online.
• Computer Studies: Office Applications Specialist Certificate

Contact Information
www.nmc.edu/business
James Beckett Building
(231) 995-1169
(231) 995-1546 fax
business@nmc.edu

Accreditation
American Culinary Federation

Transfer Guides
Available in the Counseling Center, Biederman 104 or
www.nmc.edu/counseling

Scholarships
See page 35-41, Business Academic Office, or visit
www.nmc.edu/financialaid

Facilities
The James J. Beckett 204 Computer Lab provides business specific technology resources to students.

Internships
Academic International
Communications

You may choose Communications courses to fulfill requirements for other programs or concentrate in one of these four specific areas of study:

- Public Speaking and Communications Studies
- English:
  - Developmental Reading and Writing, including classes for English Language Learner (ELL) students
  - College Composition with class sections for ELL students
  - Literature
  - Linguistics
- Modern Languages: American Sign Language, French, and Spanish
- Theater

Students who choose a concentration are generally planning to transfer to a four-year college or university to complete a bachelor’s degree. While at NMC, these students pursue a general liberal arts curriculum, with electives chosen from their area of interest. If you plan to transfer, consult with counselors and faculty members in your field of interest during your first semester at NMC to familiarize yourself with transfer requirements. Staying in Traverse City and transferring to NMC’s University Center is another option if you wish to continue with a liberal studies curriculum.

Degrees Available

Associate in Science and Arts (ASA)

Transfer Options (Follow ASA Degree Requirements)

Communications ................................................................. 66
English .................................................................................... 67
Modern Languages
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Online & Other Learning Options

ASA degree - Depending on the transfer college requirements, many required courses can be taken online.
Health Occupations

Health Occupations programs prepare you for immediate employment or to transfer to four-year colleges and universities. Specialized occupational classes lead to a certificate. The Associate Degree programs offer a combination of specialized classes and liberal arts and science studies.

The Dental Assistant and Nursing programs have specific admissions requirements. Details appear in the program information section.

If you plan to transfer, consult with counselors and faculty members in your field of interest during your first semester at NMC to familiarize yourself with transfer requirements. Transferring to NMC’s University Center is another option.

Degrees Available
Associate Degree in Nursing (ADN)
Associate in Applied Science (AAS)
Certificate of Achievement

Occupational Specialty Programs
Allied Health
  Respiratory Therapy (Partnership) .............................................................. 96
Dental Assistant
  Dental Assistant (AAS) ........................................................................... 84
  Dental Assistant (Certificate) ................................................................. 85
Nursing
  Associate Degree in Nursing (ADN) .......................................................... 92
  LPN to ADN Completion (ADN) ............................................................... 93
  Practical Nursing (Certificate) ............................................................... 94

Transfer Options - Nursing
Many colleges and universities offer BSN completion programs. Two University Center partners, Ferris State University and the University of Michigan, allow you to complete your Bachelor’s while remaining in Traverse City. See page 22-23 or go to www.nmc.edu/ucenter for more information.

Online & Other Learning Options
• Nursing Online Option (page 93)
• Allied Health/Pharmacy Technician - NMC offers a 4-credit independent study course in Fundamentals of the Pharmacy Technician. It includes training and testing using both an online format and textbook with independent projects and homework. Upon successful completion, you will have the basic foundation to begin preparing for the national certification exam. Call (231) 995-1245 for more information.
Learning Opportunities

Humanities

From graphic design, photography and writing, to music, dance, history and philosophy, NMC’s Humanities Academic area offers you a wide range of creative educational opportunities. You’ll also learn unique skills that’ll ultimately help you move on to a university or land a job in your desired field. All Humanities students have access to state-of-the-art computer labs. If it’s photography you’re pursuing, you’ll enjoy NMC’s impressive photography lab. We also provide private instrument instruction and opportunities to participate in a variety of musical ensembles and performances. You also may take advantage of our flexible learning options in computer software, history, philosophy and music courses.

Degrees Available
Associate in Applied Science (AAS)
Associate in Science and Arts (ASA)

Occupational Specialty Programs
Visual Communications (AAS) ................................................................. 97
Visual Communications - Creative Management in Art Direction (AAS) .... 97

Transfer Opportunities
Art ................................................................................................................. 66
Dance ........................................................................................................... 68
History ........................................................................................................ 67
Music .......................................................................................................... 68
Philosophy ................................................................................................. 68
Religion ...................................................................................................... 68
Visual Communications ............................................................................ 69

Online & Other Learning Options
ASA degree - Depending on the transfer college requirements, many required courses can be taken online.
Great Lakes Maritime Academy

At the Great Lakes Maritime Academy, you’ll prepare for the challenge of operating commercial ships as a deck or engineering officer.

The Academy’s unique relationship with partner institution Ferris State University allows cadets to earn maritime degree credentials and a Bachelor’s degree in Business Administration simultaneously. A core maritime curriculum for students who enter the Academy with a Bachelor’s degree is also available.

Upon completion of all requirements, you are prepared to write the U.S. Coast Guard examination for licensing as deck or engineering officers.

You’ll learn seamanship, navigation and piloting or steam and diesel engineering with up to 276 days of commercial sea time. The training ship State of Michigan is used daily as a floating classroom, a hands-on learning environment and sets sail several times a year to reinforce skills taught shore side. Upon graduation, you’ll discover 100 percent employment and exceptional salaries.

Degrees Available

- Associate in Applied Science (NMC)
- Bachelor’s of Science in Business Administration, Ferris State University/NMC University Center
- U.S. Coast Guard unlimited tonnage license for:
  - Third Mate of the Great Lakes and Oceans and 1st Class Great Lakes Pilot (Deck Program)
  - Third Assistant Engineer, Steam or Motor Vessel, unlimited horsepower (Engine Program)

Occupational Specialty Programs

Maritime........................................................................................................ 88-89
  Maritime Deck Officer
    (AAS-NMC; BS-Ferris State University).................................................... 90
  Maritime Engineering Officer
    (AAS-NMC; BS-Ferris State University).................................................... 91
Power Plant Facilities Operator (AAS).......................................................... 91

Contact Information

www.nmc.edu/maritime
Great Lakes Campus
(877) 824-SHIP
(231) 995-1200
(231) 995-1318 fax
maritime@nmc.edu

Memberships

Propeller Club
SNAME
Women On The Water

Accreditation

U.S. Maritime Administration
U.S. Coast Guard

Transfer Guides

Available in the Counseling Center, Biederman 104 or
www.nmc.edu/counseling

Scholarships

See page 35-41, GLMA Academic Office, or visit
www.nmc.edu/financialaid

Facilities

T/S State of Michigan
Maritime Labs
Shiphandling Simulator
Engineering Simulator
Great Lakes Campus Harbor

Internships

Academic
International

Opportunities

Sea time aboard T/S State of Michigan, Great Lakes and ocean vessels
Physical Education

A wide variety of Physical Education courses allow you to pursue personal interests, improve fitness, participate in sports or recreational activities, relieve stress, or earn additional credits. Two physical education credits may be taken as electives to satisfy the total number of Group 2 credits needed to fulfill Associate in Science and Arts degree requirements. See page 58.

Physical Education courses are grouped as follows:

- Health and Fitness (HF) .......................................................... 131-133
  - Fitness Circuit, Yoga, Pilates, Aerobic Workout, Aerobic Dance,
    Step Aerobics, Lap Swim
- Outdoor Pursuits (OUT) .......................................................... 151-152
  - Winter Travel and Camping, Backpacking, Caving, Rock Climbing,
    Snowshoeing, Canoeing, Kayaking
- Physical Education (PE) .......................................................... 153-154
  - Volleyball, Basketball, Softball, Soccer, Weightlifting, Aikido, Tae Kwon Do,
    Kuntaw, Judo, Swing, Latin and Slow Dancing, Hip-Hop Dance

In addition to these credit courses, the Physical Education program offers non-credit recreational opportunities. For a fee, you may join the Health and Fitness Center, which is equipped with weight machines, exercise bikes, treadmills, stair climbers, elliptical trainers and ski machines. Intramural sports start in the fall with outdoor co-ed kickball and flag football and then move indoors in the winter with co-ed dodge ball, soccer, basketball and volleyball.

Open recreation hours allow you to join in pick-up games of basketball, volleyball, or indoor soccer. Outdoor facilities include an athletic field, softball diamonds, sand volleyball and basketball courts, and a frisbee/disc golf course.

Transfer Opportunities

Most Physical Education credits will transfer to four-year schools in Michigan. Check with the Counseling office for requirements at specific schools.
Science & Math

You'll find here offerings designed to fulfill basic course requirements in occupational programs at NMC. Also, most Science and Math courses are easily transferable to four-year institutions, making your path toward a bachelor's degree a smooth one.

Degrees Available
Associate in Applied Science (AAS)
Associate in Science and Arts (ASA)

Occupational Specialty Programs
Plant Science, Applied (AAS) ................................................................. 95

Transfer Opportunities
Astronomy .............................................................................................. 66
Biology .................................................................................................. 66
Chemistry .............................................................................................. 66
Engineering ............................................................................................ 67
Environmental Science .......................................................................... 67
Mathematics .......................................................................................... 67
Physics .................................................................................................. 69

Online & Other Learning Options
ASA degree - Depending on the transfer college requirements, many required courses can be taken online.

Contact Information
www.nmc.edu/science-math
Biederman Building 203G
(231) 995-1260
(231) 995-2120 fax
science-math@nmc.edu

Student Organizations
Astronomy Club
Engineering Club

Transfer Guides
Available in the Counseling Center, Biederman 104 or www.nmc.edu/counseling

Scholarships
See page 35-41, Science & Math
Academic Office, or visit www.nmc.edu/financialaid

Facilities
Computer Lab
Greenhouse
Observatory
Science Labs:
  Anatomy & Physiology
  General Biology
  General Chemistry
  Geology
  Human Biology
  Microbiology
  Organic Chemistry
  Physics

Student Employment Opportunities
Computer Lab Aid
Office Assistant
Science Lab Assistant

www.nmc.edu
### Social Science

Whether you’re looking to fill a program requirement or wish to concentrate in a specific social science area so that you may transfer to a four-year institution, you’ll find what you need here. NMC offers Child Development and Law Enforcement programs, a Teacher Academy partnership and Service Learning Internships. Career Exploration and Planning is also offered for students undecided about a career path.

You may wish to pursue a two-year Associate in Science and Arts degree with an emphasis in Child Development. This degree opens many doors to you as an education professional in the field of Early Childhood, or could be a stepping stone to transfer programs.

In addition, NMC partners with Traverse Bay Area Intermediate School District and the Career Tech Center with agreements that allow high school students dual-enrollment in certain courses. Students interested in the teaching field can receive up to six credits for elementary and secondary education through the completion of the TBAISD Teacher Academy Program. Dual-enrolled Career Tech students in the Early Childhood Program may receive up to six credits toward a certificate or degree in Child Development.

If your interest lies in law and serving the community, you’ll want to consider NMC’s Law Enforcement program, which prepares students to become law enforcement officers while earning a two-year degree.

No matter the area of study, Service Learning projects offer you the opportunity to explore careers and build work-related skills through hands-on learning. At the same time, you are providing important volunteer services to the community.

### Degrees Available

- Associate in Applied Science (AAS)
- Associate in Science and Arts (ASA)
- Certificate of Achievement

### Occupational Specialty Programs

- Child Development (Certificate) .......................................................... 76
- Law Enforcement (AAS) ..................................................................... 86

### Transfer Opportunities

- Child Development ............................................................................. 66
- Criminal Justice ................................................................................. 66
- Economics .......................................................................................... 66
- Education ............................................................................................ 66
- Geography .......................................................................................... 67
- Political Science .................................................................................. 69
- Psychology .......................................................................................... 69
- Social Work .......................................................................................... 69
- Sociology ............................................................................................ 69

### Online & Other Learning Options

- ASA degree - Depending on the transfer college requirements, many required courses can be taken online.
- Criminal Justice program (ASA degree)
Technical

Technical programs prepare you for immediate entry level employment or to transfer to a four-year institution. In addition to degrees, certificates and certifications, technical programs allow those already employed to upgrade their technical skills. In all technical programs, enrollments are limited to give you access to the most current technology, industry-knowledgeable instructors, curriculum reviewed and approved by local advisory committees, and hands-on training.

Degrees Available
Associate in Applied Science (AAS)
Certificate of Achievement
Industry Certifications

Occupational Specialty Programs

Automotive
- Automotive Service Technology (AAS) ........................................ 71
- Electrical and Drivability Specialist (Certificate) ... ....... 71
- Master Automotive Technician (Certificate) ................................. 72
- Under Car Specialist (Certificate) ............................................. 72

Bridge Program
- Workforce Training .................................................................. 73

CAD/CAM Drafting
- CAD/CAM Detailer - Advanced Manufacturing (AAS) .............. 75
- CAD/CAM Trainee - Mechanical (Certificate) ............................ 76
- CAD/CAM Drafter - Mechanical (Certificate) .............................. 76

Construction Technology
- Carpentry Technology (Certificate) ........................................... 82
- Electrical Technology (Certificate) ............................................. 82
- Facilities Maintenance (Certificate) ............................................ 82
- HVAC/R Technology (Certificate) ............................................. 82
- Plumbing Technology .............................................................. 82

Electronics Technology
- Workforce Training .................................................................. 85

Machine Tool (Certificate) ......................................................... 87
Manufacturing Technology (AAS) .............................................. 88
Welding Technology (Certificate) ............................................... 98

Contact Information
www.nmc.edu/technical
2600 Aero Park Dr.
(231) 995-1300
(231) 995-2022 fax
technical@nmc.edu

Accreditation
Automotive Service Excellence (ASE)

Transfer Guides
Available in the Counseling Center, Biederman 104 or www.nmc.edu/counseling

Scholarships
See page 35-41, Technical Academic Office, or visit www.nmc.edu/financialaid

Facilities
Auto-Tech Lab
Cisco Lab
Electronics Lab
Machining Lab
Welding Lab
Open Learning Lab

Opportunities
Internships
Northwestern Michigan College provides a variety of ways to learn. Options include online classes, evening classes, self-paced classes, and hybrid options that combine multiple delivery methods. This allows you to choose options that best fit your life and learning style. Five associate degrees, three certificates and more than 200 classes are offered online or through other non-traditional learning options. Below you’ll find more information on the delivery methods and specific programs. You can also find whether your desired academic area offers online or other learning options by turning to that academic area’s overview (page 10-19).

Visit www.nmc.edu/online to find out more details about these classes and sample syllabi. To locate classes offered in a specific delivery method, such as online, visit www.nmc.edu/webregistration where you can use the searchable schedule feature to view current offerings and register.

**Recommendations**
- Significant self-motivation and time management skills are essential for success due to the flexibility of these courses.
- Read the course prerequisites and requirements carefully before registering. Some classes will require special skills and/or prerequisites before you can enroll.

**Delivery Methods & Online/elearning**
- Delivers instruction through NMC’s eLearning system, elearning.nmc.edu (Moodle).
- Basic computer literacy is a must and a computer with reliable Internet access is required.
- Regular participation, up to several times per week, in online activities and assignments is required throughout the semester.
- On-campus orientations, on-campus meetings, and/or proctored testing may be required.

**Self-paced**
- Learning activities are competency-based, enabling you to learn at your own pace.
- Generally, courses must be completed by the end of the semester.
- On-campus orientation and/or activity work in the O.P.E.N. Learning lab located in the Center for Learning or M-TEC may be required.
- Instructors, or Learning Coaches, along with lab staff, are available for assistance.

**Online Degree Programs**

**ADN (Associate Degree in Nursing)**
- This option is intended for full-time ADN students.
- Lab and clinical courses require on-site attendance.
- More information is available at www.nmc.edu/healthoccupations or from the Health Occupations Office, (231) 995-1235.

**AAS (Associate In Applied Science Degree)**

**Business Administration - General Business**
- Contact the Business Academic Office at (231) 995-1169 for more information.

**ASA (Associate in Science and Arts Degree)**
- Depending upon the transfer college requirements, many or all required courses can be taken online (and/or through other FLO delivered options).
- Contact an NMC Counselor or a Program Advisor for more information.

**AGS (Associate in General Studies)**
- For students whose goal is self-enrichment.
- Designed to expose you to a wide breadth of college curriculum.
- Contact the Counseling Office at (231) 995-1232 for more information.

**ASA: Criminal Justice**
- A collaborative program among NMC and two partner colleges.
- Some required classes are offered online through Delta College and West Shore Community College.
- Contact the Social Science Office at (231) 995-1290 for more information.

**Certificate Programs**

**Computer Studies: Office Applications Specialist Certificate**
- Contact the Business Academic Office at (231) 995-1169 for more information.

**General Studies Certificate**
- A collaborative program among NMC and two partner colleges.
- Some required classes are offered online through Delta College and West Shore Community College.
- Contact the Social Science Office at (231) 995-1290 for more information.

**Science and Arts Certificate**
- Contact an NMC Counselor or a Program Advisor for more information.

For more information about online or other learning options, contact the Flexible Learning Options Office at (231) 995-1962 or Osterlin 134.

**Can’t find a program or course at NMC?**
Visit the Michigan Community College Association Virtual Learning Collaborative at vcampus.mccvlc.org for more information.
Extended Educational Services - Community & Continuing Education

**Extended Educational Services**

**www.nmc.edu/ees**  
(NMC University Center on Cass Road)  
2200 Dendrinos Drive - Suite 102,  
Traverse City, MI 49684  
(231) 995-1700  
(231) 995-1708 fax  
es@nmc.edu  
*Non-credit courses are held at various campus locations.*

EES is the professional development, community and continuing education arm of NMC providing a broad array of learning options. No application is necessary. Each quarterly *Learn for Life* schedule highlights more than 200 courses that cover topics of interest for anyone age 4-100, including:

- Certificate Programs  
- College for Kids  
- Creative Arts  
- Culinary  
- Fitness and Recreation  
- Language and Writing  
- LIFE Academy

Complete *Learn for Life* course schedules are published four times a year and posted online. Sign up for courses by phone, fax, mail or in person.

**Professional Development**

EES offers a variety of professional development courses including the latest in computer software training, small business development, customer service, real estate, human resources and nonprofit management topics. Continuing Education Units (CEUs) can be awarded for many courses meeting requirements for professional development within specific fields of study.

**College For Kids**

Enrichment courses for preschool through high school students are offered year round. An extensive summer program provides a wide range of learning options including art, music, drama, science, the environment, computers, outdoor adventure, aviation, astronomy, and writing. Summer formats are varied with options for a day, a week, or two weeks. Partial scholarships are available based on financial need.

**LIFE Academy - Learning Is Forever**

The LIFE Academy is a program of learning opportunities created with and for adults age 50+ in a format of mostly daytime, short-term noncredit courses. Learners choose from more than 30 courses each term across a broad spectrum of interests. Special events include monthly LIFE Lunch Forums and Campus Days in the spring and fall.

Adults age 62+ who live or own property in Grand Traverse County are eligible for a 20% reduction in tuition for both continuing education and academic credit courses. EES also offers professional development in the field of aging.

**Online Courses**

Learning online is interactive and convenient. Courses include instruction on web page design, computer software programs, test preparation, business topics, writing skills, and enrichment topics.

**Certificate Programs**

Continuing Education Certificate programs include:

- Computer Skills  
- Small Business/Entrepreneur  
- American Management Association Certificate in Management  
- Residential Energy Assessment

Complete descriptions are available.

**Scholarships**

A variety of partial scholarships are available.

**Special Events**

- Fall Campus Day  
- Summer LIFE Week  
- Spring Kaleidoscope Day  
- International Affairs Forums  
- Monthly LIFE Lunch Forums  
- Conferences  
- Workshops/Seminars
Mission
The Northwestern Michigan College University Center facilitates the delivery of high quality programs and courses beyond the associate degree level to northwest Michigan. Serving students since the fall of 1995, the NMC University Center has enabled residents to complete degrees without leaving the area.

Partnership
The University Center is a unique partnership between Northwestern Michigan College and senior universities. The four-year institutions offer all courses required for the completion of the final two years of selected bachelor degree programs or the fulfillment of requirements for selected graduate or certificate programs. You may select from more than 50 undergraduate and graduate programs offered at the University Center in the areas of Allied Health and Human Services, Business and Teacher Education.

Accreditation
Institution and program accreditation information is available from the individual universities at the University Center.

Opportunities
NMC University Center opportunities include: Bachelor’s Degrees, Master’s Degrees, Doctoral Degrees, Professional Certification and Education Endorsements, and Planned Programs.

Admissions
To study at the University Center, apply for admission to a program with the four-year institution of your choice. Once accepted to a university, you are literally a student at your selected institution, with the same rights and responsibilities as other students at that college or university.

Location of Classes
Classes offered by the universities are typically held at the NMC University Center Campus on Boardman Lake in Traverse City. Some classes may also be held on NMC’s main campus, Great Lakes Campus, Aero Park Campus, or at other sites in the region.

Facilities
NMC University Center facilities include Zonta Library, Computer Labs, and Interactive and General Classrooms.

Paying for Classes
Tuition and fees are assessed by the institutions in which students are enrolled, not by Northwestern Michigan College. More complete information about payment and refund policies is available from the institutions listed below.

You should also contact the university that you plan to attend for assistance with financial aid applications. Apply at least nine months prior to the beginning of classes.

For Scholarship information call (231) 995-1776.
Learning Opportunities

**Eastern Michigan University**
Contact: Jacqui Frensley
2200 Dendrinos Dr., Suite 200-M
Traverse City, MI 49684
(231) 995-1750 or (877) 368-8289
(231) 995-1751 fax
traverse.city@emich.edu

**Graduate Certificate Program**
- Historic Preservation

**Ferris State University**
Contact: Dr. Nancy Reddy
2200 Dendrinos Dr., Suite 200-H
Traverse City, MI 49684
(231) 995-1734 or (866) 857-1954
(231) 995-1736 fax
FerrisNorth@ferris.edu

**Bachelor's Programs**
- Accountancy
- Business Administration
  - Aviation
  - Management
  - Maritime
  - Professional Track
- Computer Information Systems
- Information Security and Intelligence
- Nursing
- Secondary Teacher Education
- Social Work

**Undergraduate Programs & Certificates**
- 18-Hour Planned Programs
- Elementary Endorsement to Secondary Provisional Certificate
- Human Resource Management Certificate
- International Business Certificate
- Secondary Endorsement to Elementary Provisional Certificate
- Special Education Endorsement

**Master's Programs**
- Career and Technical Education
- M. Education in Curriculum and Instruction
- Secondary/Elementary Certificate options

**Post-Bachelor's Certificate Programs**
- Human Resource Management
- International Business

**Grand Valley State University**
Contact: Dr. Marty Litherland
2200 Dendrinos Dr., Suite 101
Traverse City, MI 49684
(231) 995-1785 or (888) 922-1785
(231) 995-1786 fax
nminfo@gvsu.edu

**Bachelor's Programs**
- Liberal Studies
- Language Arts/Elementary Education
- Social Studies/Elementary Education
- Secondary Education

**Endorsements & Planned Programs**
- Cognitively Impaired (CI)
- Early Childhood Developmental Delay (ECD)
- Early Childhood (ZA)
- 18 Hour Planned Program
- Special Education Dual Endorsement Options

**Lawrence Technological University**
Contact: Teri Goodman
2200 Dendrinos Dr., Suite 211
Traverse City, MI 49684
(231) 995-1725, (231) 995-1723 fax
northernmi@ltu.edu

**Master's Program**
- Business Administration (MBA)

**Doctoral Program**
- Business Administration (DBA)

**Graduate Certificate**
- Nonprofit Management and Leadership

**Michigan State University**
2200 Dendrinos Dr., Suite 100
Traverse City, MI 49684
(231) 929-3902 or (877) 678-6678
(231) 929-0454 fax

**Program**
- Applied Plant Science (NMC ASA/AAS Degree and MSU Certificate)

**Spring Arbor University**
Contact: Jill Niemi
2200 Dendrinos Dr., Suite 200-E
Traverse City, MI 49684
(231) 995-1760 or (800) 648-5843
(231) 995-1763 fax
jniemi@arbor.edu

**Bachelor's Programs**
- Family Life Education
- Management and Organizational Development

**Master's Program**
- Master of Arts in Organizational Management

**University of Michigan**
Contact: Lorrie Jorgenson
2200 Dendrinos Dr., Suite 200-U
Traverse City, MI 49684
(231) 995-1781, (231) 995-1782 fax
ljorgens@umich.edu

**Bachelor's Program**
- Nursing

**Western Michigan University**
Contact: Mary Swartz
2200 Dendrinos Dr., Suite 200-B
Traverse City, MI 49684
(231) 995-1788, (231) 995-1789 fax
tc-campus@wmich.edu

**Master's Program**
- Counselor Education (Community & School)

**Graduate Certificate Programs**
- Holistic Health Care
- Alcohol and Drug Abuse (SPADA)
Dennos Museum Center  
**www.dennosmuseum.org**  
(231) 995-1055

The Dennos Museum Center at NMC offers programming in the visual and performing arts to the college community and the citizens of northwestern Michigan.

Exhibit space includes three changing galleries, a significant collection of Inuit (Eskimo) art and a gallery devoted to interactive exhibitions for children.

Milliken Auditorium hosts lectures, theater, and musical performances. These events showcase some of the best talent from around the world. Student Government-sponsored events and NMC music department programs are often presented at the Milliken Auditorium.

The Dennos Museum Center is open to the public Monday-Saturday, 10 a.m. to 5 p.m. and Sundays, 1 to 5 p.m. NMC students are admitted free with student ID. Museum members are admitted free.

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Great Lakes Water Studies Institute  
**www.nmc.edu/wsi**  
(231) 995-1793

Located on West Grand Traverse Bay at NMC’s Great Lakes Campus, the Great Lakes Water Studies Institute was founded in 2004 with a three-fold mission:

- **Learning** - To provide learning opportunities about freshwater that foster stewardship of the Great Lakes and its watersheds.
- **Collaboration** - To build, support, and encourage partnerships that achieve shared missions for freshwater - including nonprofit organizations, businesses, K-12 schools, and school districts, higher education, research institutions, foundations, and others.
- **Convening** - To bring people and organizations together to learn about and address freshwater issues and needs.

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Hagerty Center  
**www.nmc.edu/hagerty**  
(231) 995-3100

Located at NMC’s Great Lakes Campus, the Hagerty Center is a premier waterfront venue for lifelong learning. State-of-the-art conferencing facilities, space to seat up to 380 and an on-site chef and culinary facilities are available to meet the needs of trade shows, conferences and banquets.

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Lobdell’s: A Teaching Restaurant  
**www.nmc.edu/culinary**

Reservations: (231) 995-3120

Located at the Great Lakes Campus, Lobdell’s serves as a working laboratory for culinary students and is open to the public for lunches and dinners in fall and spring semesters.

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Osterlin Library  
**www.nmc.edu/library**  
(231) 995-1060

Community members as well as students may use the library facilities, including computers, and borrow books free of charge. Photo ID is required for a library card or to use computers. The library has an extensive collection of research volumes, periodicals and government documents.
Rogers Observatory
www.nmc.edu/observatory
(231) 995-2300

Named for the Joseph H. Rogers, the late science/math division director and instructor who spearheaded the project, the observatory contains a classroom, dome, telescope and darkroom. It was built to house astronomy classes and provide an educational program for community groups. Located south of Traverse City to take advantage of dark skies, the Grand Traverse Astronomical Society conducts regular programs at the Observatory.

The Observatory is part of Project ASTRO,™ a national science education program that links professional and amateur astronomers with teachers and youth group leaders and elementary and middle school students, and Project Family ASTRO,™ a national K-12 and community science education outreach program.

Training & Research
www.nmc.edu/training
(231) 995-2218

Located at NMC’s Aero Park campus, Training and Research provides customized services to a business clientele. Beginning with assessment, meeting your company’s organizational goals and objectives are what drive the design and delivery of Training & Research services. Training locations are flexible-visit NMC or let us come to you. Specific services include:

Training and Coaching
• Training Plan Development
• Individual Development Plans
• Training Grant funding and grant management
• Leadership Development
• Supervisory Skills
• Lean Learning Consortium
• Lean Office
• Team Skills
• Problem Solving Processes

Michigan Manufacturing Technology Center - NW

Training & Research is the home of MMTC, which assists manufacturers in maintaining or developing their global competitiveness.
• Performance Benchmarking
• Lean Learning Consortium
• Lean Manufacturing
• Power of Lean introductory series
• Technical Skills
• Process Improvement
• ISO/QS/TS 9000
• Six-Sigma

Research Services

Providing customized reports for organizational planning, development and alignment is the focus of NMC Research Services. A full range of research activities are offered:
• Survey Planning and Project Management
• Questionnaire Development
• Data Analysis
• Web-Based Surveys
• Telephone Surveys
• Mail Surveys
• Personal Interviews
• Focus Groups

WNMC Radio Station
www.wnmc.org
Requests: (231) 995-1090

Located at 90.7 FM, WNMC is community radio. Most of the people you hear on the air are just local people like yourself who love great music and great radio. Volunteers are always welcome.
**Find out about NMC**

- Explore the opportunities for study at NMC - visit [www.nmc.edu](http://www.nmc.edu) or review this NMC catalog.
- Call the Welcome Center to schedule a tour, (231) 995-1135.

**Complete the Application for Admission**

- Find it in this catalog, Schedule of Classes, at [www.nmc.edu/admissions](http://www.nmc.edu/admissions) or visit the NMC Admissions Office on the main floor of the Tanis Building, (231) 995-1054.
- Complete the application, mail it in or deliver it, along with the $20 application fee, to the NMC Admissions Office.
- Request your high school transcript or GED scores, ACT scores, AP scores and college transcripts, where applicable, be sent to the Admissions Office.
- Tour on-campus housing and find out more about our full-service residence hall and campus apartments.

**Apply for the Financial Assistance You Need**

- To be considered for Financial Assistance, complete and submit your Free Application for Federal Student Aid (FAFSA) to the Federal processing center in the envelope provided with the form or go to [www.fafsa.ed.gov](http://www.fafsa.ed.gov) online. For more information, visit the Financial Aid Office on the main floor of the Tanis Building, visit [www.nmc.edu/financialaid](http://www.nmc.edu/financialaid) or call (231) 995-1035.
- Check with your academic Office to find out more about divisional scholarships.

**Complete Placement Testing & Attend Orientation**

- Take NMC’s COMPASS Placement Exam to make sure you are placed in the right courses. Testing is available Monday - Friday, through the Career and Employment Services Office (Osterlin 118). Evening and weekend testing is available by appointment. Call (231) 995-1041. ACT scores of 19 or higher in reading and English and/or a 24 or higher in math may be used for course placement.
- Upon admission to NMC, you will receive information about upcoming orientation sessions – all new students are required to attend.
- Attend an orientation session where you will meet with a counselor or advisor to schedule classes.

**Register & Pay for Classes**

- Register early for best selection and pay according to the dates published in the Schedule of Classes.
- Register and pay at Orientation, online at [www.nmc.edu/webregistration](http://www.nmc.edu/webregistration) or in the Records and Registration Office. Stop by the Bookstore in West Hall and purchase your books.
Welcome Center

The Welcome Center, located in the main lobby of the Health and Science building, is available to answer questions, provide tours, schedule orientation sessions and placement testing, issue parking stickers and provide general information about the college. The Welcome Center, (231) 995-1135, is staffed 8 a.m. to 5 p.m., Monday through Friday.

Admissions

Northwestern Michigan College is an open door comprehensive community college, which means we admit most students who have graduated from high school or successfully completed the GED with potential to succeed in higher education.

Students interested in completing a GED may do so through the Traverse Bay Area Intermediate School District. To register or obtain more detailed information on how to get started, contact Michigan Works Adult Education at (231) 922-7826. Once a student is admitted to NMC, he/she must complete an assessment of writing, reading and math skills to determine his/her ability to benefit from courses that NMC offers. If it is determined that NMC does not offer courses commensurate with a student’s ability to benefit, a referral to an agency or other alternative will be made with the assistance of a counselor or advisor.

Obtaining Personal Assistance

Northwestern Michigan College is pleased to provide you assistance in applying for admission.

WELCOME CENTER
• Visit the Welcome Center in the lobby of the Health and Science Building to obtain information or to schedule a campus tour. You may also contact the Welcome Center via e-mail to welcome@nmc.edu or call (231) 995-1135.

ADMISSIONS OFFICE
• Visit the Admissions Office in the Tanis Building. The Financial Aid and Records/Registration offices are located across the hall for your convenience. For more information e-mail admissions@nmc.edu or call (231) 995-1054.

General Information

When you decide to apply for admission at NMC, you file an Application for Admission. Application forms are available from the NMC Office of Admissions, at high schools, inside the back cover of this catalog, in the academic Schedule of Classes or go to www.nmc.edu/admissions online.

While American College Test (ACT) or Scholastic Aptitude Test (SAT) scores are not required for admission to NMC, you may have your scores sent to us for reviewing your academic achievements and educational plans. In addition, if your ACT score is 19 or above in reading and 19 or above in writing you are not required to take those portions of the basic skills assessment test (COMPASS) before commencing study at NMC. An ACT math score of 24 or higher will place a student in MTH 106, MTH 121 or MTH 131. If you completed AP tests, please have the scores sent to NMC. (If you have below a 2.0 average on your high school transcript, you may be admitted to NMC on a provisional basis. To help you meet your educational goals, you will be required to seek academic counseling and enroll in a reduced class load.)

Types of applications

• REGULAR ADMISSION
  - Degree or Certificate Admission- For applicants who intend to complete an associate degree, to transfer or to complete a certificate program in an occupational specialty.
  - Non-Degree Admission- For applicants who intend to pursue course work in an area of interest to gain skills or for enjoyment.

• DUAL-ENROLLED ADMISSION
For applicants who are enrolled in classes at NMC while still in high school.

• SPECIAL ENROLLMENT OPTION
For qualified high school students enrolled in joint programs offered by NMC and the TBA/Career Tech Center.

• GUEST ADMISSION
Applicants currently attending another Michigan college/university may apply as a guest student at NMC. Guest students must submit a completed Michigan Uniform Undergraduate Guest Application. This application must be submitted for each semester a student plans to attend for a maximum of two semesters. After two semesters, a student must complete an NMC application for admission if they wish to continue to be enrolled at NMC.

Procedures for Applying to NMC

• Fill out an NMC admission application form.
• Attach a check or money order for $20 (payable to NMC) to cover this one-time, non-refundable admission fee.
• Mail or bring the completed application to:
Northwestern Michigan College Admissions Office
1701 East Front Street, Traverse City, Michigan 49686
• You may also go to www.nmc.edu/admissions to access the NMC Admissions Application online.
HIGH SCHOOL AND/OR COLLEGE
TRANSCRIPT REQUIREMENTS
If you are a Degree/Certificate or a Non-Degree/Certificate applicant, send your transcripts according to these guidelines:

1. Submit ACT reading and writing scores of 19 or higher to NMC’s Admissions Office for review, or
2. Take NMC’s COMPASS Placement Test. For information on testing, please call (231) 995-1041.
3. If you also want to take a college class that requires proficiency in math, you will need an ACT score of 24 or better on the math placement test. This may qualify you for College Algebra, Math for Elementary Teachers - MTH 106, or Intro to Probability and Statistics. All other math courses require COMPASS testing.

After test scores are on file, students will receive an eligibility letter from NMC’s Admissions Office showing what classes they may be able to take and outlining additional steps in the dual enrollment process.

Eligible dual enrolled students who would like to take academic classes must do the following:
1. Complete the dual enrollment application with your high school counselor and obtain all required signatures.
2. Send or bring the application to NMC’s Admissions Office with the non-refundable application fee.
3. Attend orientation. At this time students will register for classes. (First time dual enrollment students must attend an orientation.)
4. Pay for your classes or present paperwork from your school if they are covering the tuition.

There are no eligibility or test score requirement for students taking aviation, studio art, studio music, physical education, or technical courses approved by the instructor. These students simply fill out and submit the dual enrollment application.

SPECIAL ENROLLMENT OPTION
- Program Offerings: Visual Communications, Welding, Education
- Classes are held at the Traverse Bay Area Intermediate School District Career Tech Center (TBA/ISD/CTC).
- The student must apply during the first week of their TBA/CTC course by submitting the Special Enrollment Application to the NMC Admissions Office each semester and pay a special enrollment fee.
- To receive NMC credit, the student must satisfy NMC standards for assignments, quizzes, tests, exams, and grading procedures.

www.nmc.edu/admissions for more detailed information on dual enrollment, from the “Apply to NMC” menu.

HOME-SCHOoled APPLICANTS
NMC welcomes home school and non-traditional school applications. Please follow the procedures for applying to the college as previously outlined. Home school graduates will be admitted under Regular Admission. NMC requires home school transcripts. Home school students who have not graduated will be admitted as a dual-enrolled admission and must reapply each semester until completion of high school graduation. Written consent from the student’s parent/guardian and approval from the home school provider is required for current home school students. For more information, contact the Admissions Office at (231) 995-1054.

DUAL ENROLLED APPLICANTS
Dual enrollment at NMC is selective. High school students must qualify for dual enrollment and admission to NMC. To be considered for academic classes (i.e. Government, history, English, math, science, psychology, business, geography etc.) prospective dual enrolled students must either:

TRANSFERRING CREDITS FROM OTHER COLLEGES
If you have credits from another college or university, request the registrar of that school to send an official transcript to the NMC Admissions Office. Your credits will be evaluated and the evaluation mailed to your permanent address. You will most likely receive credit from institutions accredited by the Association of Colleges and Schools for those college-level courses in which you received a 2.0/C or higher grade and which are similar to courses at NMC. The total number of credits will be recorded on your transcript. In certain circumstances when applying to specific occupational programs, only the classes that apply to those programs may be evaluated. Please remember that while credits transfer, grades do not.

- Seeking admission to a limited enrollment program such as Health Occupations or the Maritime Academy
- Wishing to have previous college work evaluated for credit at NMC
- Applying for college financial aid or
- Applying for Veterans Benefits.

If you are over 21, you do not need to submit a high school transcript unless you are seeking admission to a limited enrollment program such as Health Occupations or the Maritime Academy.

If you are over 21 and have attended a college* or technical school, you do not need to submit a high school transcript. An official transcript of accredited college work is only required if you are:

•  The student must apply during the first week of their TBA/CTC course by submitting the Special Enrollment Application to the NMC Admissions Office each semester and pay a special enrollment fee.
•  To receive NMC credit, the student must satisfy NMC standards for assignments, quizzes, tests, exams, and grading procedures.

www.nmc.edu/admissions for more detailed information on dual enrollment, from the “Apply to NMC” menu.

SPECIAL ENROLLMENT OPTION
- Program Offerings: Visual Communications, Welding, Education
- Classes are held at the Traverse Bay Area Intermediate School District Career Tech Center (TBA/ISD/CTC).
- The student must apply during the first week of their TBA/CTC course by submitting the Special Enrollment Application to the NMC Admissions Office each semester and pay a special enrollment fee.
- To receive NMC credit, the student must satisfy NMC standards for assignments, quizzes, tests, exams, and grading procedures.
ADMISSION TO LIMITED ENROLLMENT PROGRAMS
Health Occupations have special admissions requirements as outlined under the specific program in this catalog.

The Great Lakes Maritime Academy (GLMA) also has special admission requirements. GLMA application packets are available from the Office of Admissions at the Academy, Great Lakes Campus, 715 E. Front Street, (231) 995-1200.

RIGHT TO APPEAL
In the event you are denied admission to an occupational program that has special admission requirements, you may appeal such matters to the Director of Admissions and subsequently to an admissions review committee for consideration.

ADMISSION OF OUT-OF-STATE STUDENTS
Northwestern Michigan College welcomes out-of-state student admission applications. If you plan on visiting the Traverse City area please phone our Welcome Center at (231) 995-1135 for information regarding a campus tour.

ADMISSION OF INTERNATIONAL STUDENTS
Northwestern Michigan College is authorized under federal law to enroll non-immigrant students. We welcome applicants from around the world. Potential students will be asked to demonstrate English language proficiency either through testing or other indicators. A minimum score of 550 (paper) or 213 (computer) or 79 (internet based) on the TOEFL test is required. You will also need the equivalent of a U.S. high school education with an approximate grade point average of 2.5. Since the college does not have financial aid available for international students, you must clearly demonstrate your ability to finance your education in the U.S. by completing a financial statement. All international students are required to carry an approved medical insurance program to cover major medical expenses. If you are not covered by medical insurance, you will be required to enroll in the student insurance program available through Northwestern Michigan College, at a cost of approximately $550 per year. Deadline for Fall admission is July 15; deadline for Spring admission is November 15. Please write to the Office of Admissions-International, NMC, 1701 East Front Street, Traverse City, MI 49686, or call (231) 995-1034, for complete application procedures.

INTERNATIONAL STUDENT SERVICES
NMC has two International Student Advisors who can be reached through the Admissions Office at (231) 935-1054. International students are encouraged to use these services to support their academic and social success. The following services are provided:

- With advance notice, an NMC representative will arrange for pick up from the Cherry Capital Airport for students arriving for the first time.
- Approval for on-campus employment
- Community and cultural orientation
- International Club activities
- Liaison to other college support services
- Liaison to community groups

NMC recognizes the importance of global awareness and currently offers study-abroad opportunities for NMC students in Germany. For more information, call (231) 995-1170.

Residency
Your tuition rate is determined by your residency during the admissions process. You may be admitted as in-district, out-of-district (other Michigan counties), out-of state or international. Grand Traverse County property owners and their dependents are considered in-district and pay lower tuition because they also pay county property taxes which support NMC. (Exception: Maritime classes are based on credit hours only.) Contact the Admissions Office at (231) 995-1054 for further information.

To change your residency, you must obtain a petition online or from the Records Office. In-state or Grand Traverse County property owners must provide a copy of the current property tax receipt. Non-property owners must reside at a permanent address in Michigan/GT. County for a minimum of six consecutive months as a non-student. (For residency purposes, a non-student is someone not attending or taking 5 or fewer credits.) In addition to the petition, the student must submit copies of the supporting documentation to the Records Office at least one week prior to the start of the main session. An authorized change in residency status for tuition assessment is not retroactive to any previous semester of enrollment at NMC.

Students under 25 years of age, whether or not they are claimed as dependents on their parents’ previous year income tax return, should check for additional special requirements. Completing an “Information Change Form” will not change your residency unless you are leaving Grand Traverse County. If you have questions, contact the Records Office (231) 995-1049.

Legal residence for students is verified on a continuing basis. NMC sends letters to enrolled students each semester (Fall, Spring, and Summer) with a “Forward and Address Correction Requested” label on the envelope. When discrepancies are found, a change is made in the student’s address. Each semester all addresses and residency codes are compared/verified for accuracy and updated where appropriate.

RESIDENCY CLASSIFICATIONS
A person may be admitted in one of these classifications:

1. In-District: Legal resident of Grand Traverse County
2. In-State: Legal resident of Michigan outside of Grand Traverse County
3. Out-of-State: Legal resident of a state other than Michigan
4. International: Legal resident of a country other than the U.S.
Tuition, Billing & Fees

Tuition
You may pay any amount at any time prior to the due date, but the final balance must be paid by 5:00 p.m. on the due date listed below or your enrollment may be cancelled. After final payment day, tuition is due at the time of registration. For online registration only, payment by credit card is recommended or payment must be received within 24 hours. Note: If you decide not to attend, you must officially withdraw or you will be liable for tuition/fees. In the event that your check is returned unpaid for insufficient or uncollected funds we will charge a $25 NSF fee. An NSF payment may affect your enrollment.

FINAL PAYMENT DATES:
Fall 2009.................................................August 10, 2009
Spring 2010..............................................January 4, 2010
Summer 2010............................................May 11, 2010
Visit www.nmc.edu/tuition for current rates.

Billing
Tuition charges are based on contact hours with the instructor (shown in the column after “credit hours” in the Schedule of Classes). The tuition charge is the contact hour multiplied by your tuition rate plus any applicable fees as shown below.

Fees
APPLICATION FEE: .........................................................$20
One-time, non-refundable fee for processing Application for Admission to NMC.

CLASS FEES: ..................................................See course schedule
Fees are charged for specific courses involving additional materials, laboratory supplies and/or network services provided by instructors, Flexible Learning Options courses, or private studio lessons (Music Dept.). See course schedule (column “Class Fee”) for these special charges. For aviation flight fees, contact the Aviation Department.

GENERAL FEE: ..................................................See www.nmc.edu/tuition
This fee provides partial support for the cost of registration, Orientation, COMPASS, career testing, Student Government Association, and other student services and activities. This fee contributes to the availability and maintenance of technology for classroom and student use. This fee also contributes to the maintenance of campus sidewalks and roadways.

HEALTH FEE: (Refundable if student withdraws from all courses during the 100 percent refund period; nonrefundable thereafter.) The fee is paid Fall and Spring Semester by all students taking 6 or more contact hours and includes services of a family nurse practitioner, medical assistant, doctor, and reduced fees for some medications and lab tests. Students who are enrolled for less than 6 hours may also pay the fee and obtain services. Call (231) 995-1255 for more information. For anyone taking 6 or more contact hours..............$20.00

Tuition and fees are established and reviewed by the Board of Trustees on an annual basis and are subject to change without notice.

APARTMENTS
Rent is paid monthly and due the first day of the month. Late payments will result in a late fee.

HOUSING
Housing fees for the semester must be paid by final payment day or a completed and signed deferment form must be submitted to the Cashier’s Office.

Billing Procedure
It is your responsibility to pay any charges by applicable due dates whether or not a bill is received. We will attempt to bill you for tuition and fee charges prior to applicable due dates; however, if you register late in the registration process, this may not be possible. In case of errors or questions about your bill, contact the Cashier’s Office as soon as possible. Any collection costs incurred by NMC as a result of non-payment of any charges will be added to the outstanding balance and will become the student’s responsibility.

Paper bills are mailed to the student each month, as well as email notices directing students to access the NMC Self-Service to view their account. We encourage you to access your account at www.nmc.edu/webregistration, to view or print account information and make credit card payments.

Financial & Other Obligations
Financial Aid Students: All tuition and fees in excess of your anticipated aid and/or third party authorizations must be paid by the designated due date. If you decide not to attend, you must officially withdraw or you will be liable for tuition/fees. Third party authorizations must be received in the Cashier’s Office with payment for amounts not covered by:

Fall 2009.........................................................July 27, 2009
Spring 2010......................................................December, 2009
Summer 2010..................................................April 19, 2010
Fall 2010.......................................................July 26, 2009

VISA, MasterCard and Discover are accepted for tuition, fees and books. You may pay by mail or in person, utilize the drop boxes (located in the Tanis Building outside the Cashier’s Office) or online at www.nmc.edu/webregistration to pay with your credit card. All college debts and “holds” must be cleared to register.

Refunds
Refunds for courses dropped are based on the number of weeks in the session that the course is offered. The refund percentage is determined by the date the withdrawal or drop form is received and processed in the Records and Registration Office or entered by the student online. Students who officially drop all or part of their classes before the start date of the session that their course(s) is in will receive a 100 percent refund of tuition and related fees.
Sessions that are 1 day to 6.5 weeks will receive no refund once the session has begun. Sessions that are 7-15 weeks will receive a 100 percent refund until the end of the session’s add period.

Each semester the refund schedule for each session is available at www.nmc.edu/records or in the Records and Registration Office.

Refund checks will be mailed to the student’s on-campus or local address unless the student requests the check be mailed elsewhere. It is the student’s responsibility to update this information if it changes. If a credit/debit card is used to pay a bill, then financial aid and tuition refunds will be refunded back to the credit card that was used to pay on the account.

**Financial Aid**

Northwestern Michigan College is committed to working with you to acquire the maximum financial aid for which you are eligible. To do so, you need to follow financial aid guidelines in a timely manner. While NMC maintains a large number of scholarships, state and federal financial aid programs are also available to assist with the costs of your college education. Visit www.nmc.edu/financialaid for additional information.

**Financial Aid Philosophy**

Paying for college is a shared responsibility among the student, the family, and the college financial aid programs. Scholarships, grants, employment, and loans are available through the Financial Aid Office. Any or all of these may be combined in a “financial aid package” to help with educational costs. Scholarships and grants are forms of financial aid which do not have to be repaid. Loans must be repaid. NMC scholarship and grant eligibility criteria are primarily determined by the donor and/or NMC Scholarship Committee and based on financial need, scholastic ability, and/or other specific stipulations.

**Application Procedures for Financial Aid**

Upon applying for financial aid at NMC via the Free Application for Federal Student Aid (FAFSA), the applicant is automatically considered for the following types of assistance:

- Federal Grants/Loans/Workstudy
- State Grants/Scholarships/Workstudy
- Institutional Scholarships

Application materials are available at www.fafsa.ed.gov or from the Financial Aid Office (Tanis 142) or by calling (231) 995-1035, option 1.

Institutional scholarships that are determined by area departments within the college will generally post scholarship requirements and provide applications by March for the following academic award year. Please see the Office Manager in your major area of study for specific information and any other application deadline opportunities.

An aid application will be considered complete when:

1. The applicant is accepted for admission in an aid eligible program of study leading to a degree or certificate at NMC and is making Satisfactory Academic Progress while attending NMC, and

2. The Financial Aid Office has on file the following for the aid applicant:
   a) Institutional Student Information Report (ISIR). This report is electronically transmitted to NMC as a result of the student’s listing NMC as a recipient on the FAFSA;
   b) Official Academic Transcripts from all previous colleges (Preferred);
   c) Complete IRS tax returns (including schedules), W2s, and all other required verification documents at the request of the federal government and/or NMC.

Complete and accurate applications received prior to April 1st may be given first priority for the next academic year. The deadline date for Spring and Summer semesters is the final registration day of the preceding semester. Applications received after these dates will be considered if funds become available. **Students must apply for financial aid each academic year of their college attendance.**

**SELECTION CRITERIA**

Financial aid at NMC is awarded on the basis of financial need and/or academic merit. Generally, awards will be made on a first-come, first-served basis in compliance with respective program guidelines until existing funds have been exhausted. Eligible applicants who apply by the deadline date will have the best opportunity for assistance. Students who demonstrate the most need and/or highest academic achievement will be considered accordingly. All financial aid is awarded without regard to age, color, disability, handicap, height, marital status, national origin, citizenship, political affiliation, race, religion, gender, sexual orientation, veteran’s status or weight.
DETERMINATION OF KIND & AMOUNT OF AID
Complete and accurate financial aid applications will be reviewed for funding through all federal, state, and institutional programs awarding gift-aid first (scholarships and grants) with self-help (loans and employment) second. Depending on availability, every effort will be made to award sufficient funds to cover direct educational expenses (tuition, fees, books and required supplies.) Generally, gift-aid will not exceed one-half of the cost of attendance.

A student must be taking classes toward their degree in order to be eligible for financial aid. The funding amount may be adjusted according to the number of credits a student is enrolled in for the semester.

Full time (100%) ...................................... min. of 12 credit hours
Three-quarter time (75%) ...................... 9 to 11 credit hours
Half-time (50%) .................................6 to 8 credit hours
Less than half-time ............................ 1 to 5 credit hours*
(may not be eligible)

* Not Stafford loan eligible

SATISFACTORY ACADEMIC PROGRESS POLICY
Federal regulations require the Financial Aid Office to monitor the progress of all financial aid students toward the completion of their declared degree or certificate. This monitoring process is called Satisfactory Academic Progress (SAP). Maintaining SAP is essential in order to be eligible to receive funds from any Federal Title IV, state or institutional programs.

Generally, financial aid recipients will have their Satisfactory Academic Progress (SAP) measured each semester.

• Minimum grade point average (GPA) requirements: All financial aid students must have a minimum 2.0 semester GPA to be eligible for financial aid for the following semester; and

• Minimum completion factor required: All financial aid students must complete a minimum of 67% of credits registered for at the time aid is finalized. Financial aid will be finalized on the 15th day of the Fall/Spring semesters and on the 7th calendar day from the main Summer session start date. When calculating completion factor the following designations will be considered as non completion of the class: Incompletes (I), audits (AU), withdrawals (WP/ WF), failures-to-attend (FA), unsatisfactory (U), not-qualified (NQ), in-progress (IP), zeros (0.0) and repeats; and

• Maximum time a student has to complete his/her Associate Degree (150% Rule): (Students enrolled prior to 7/1/2008) Six (6) semesters as a full-time student (12 credits or more); nine (9) semesters as a three-quarter-time student (9-11.5 credits); twelve (12) semesters as a half-time student (6-8.5 credits); or fifteen (15) semesters as a less-than-half-time student (1-5.5 credits.) Aid eligibility concludes after this time frame, pending mitigating circumstances. All credits are counted toward the 150% rule, even those for which the student did not receive financial aid. Should a student change their program of study NMC will not include, in the calculation of classes taken, those credits attempted and grades earned that do not pertain to the student’s new major. All classes that have transferred in, that pertain to a student’s degree, will be counted in the number of credits taken. Note: If you are appealing for an extension of financial aid lost due to the federally mandated 150% rule, please obtain a Satisfactory Academic Progress Appeal Form from the Financial Aid Office.

Students who are receiving Pell for the first time on or after 7/1/2008. Legislation has limited the period of time that a student may receive a Pell Grant to 18 semesters or the equivalent as determined by regulation. The regulations are to provide fractional equivalents for terms in which a student is enrolled less than full-time. As a result, a student is eligible to receive up to nine Federal Pell Grant Scheduled Awards.

If a student does not achieve Satisfactory Academic Progress they will be placed on financial aid probation for the next semester of attendance. If, after that semester, they are unable to maintain SAP requirements their aid will be cancelled. A student will be removed from financial aid probation upon maintaining a cumulative 2.0 GPA and making SAP.

SATISFACTORY ACADEMIC PROGRESS APPEAL
Students whose aid has been cancelled due to extenuating or special circumstances may appeal in writing to the Financial Aid Office for reinstatement of their financial for their next semester of attendance. The student must provide a letter detailing the following: circumstances for their request; dates of any incidents; supporting third party documentation; rational as to what changes the student will implement to ensure that their next semester of attendance will be successful. The Financial Aid Office will review the student’s college academic history; onset of medical situation (if indicated); situation itself as to being out of the students control; how the student was doing in their course work prior to the incident; and information as provided by the student. After all information has been provided and reviewed, the file will be documented to provide supporting rational of this decision; all decisions are final and cannot be appealed further. If an appeal is denied, financial aid eligibility may be reestablished. Please see “Re-establishing Financial Aid Eligibility” on next page. An Appeal Form may be obtained from the Financial Aid Office.
RE-ESTABLISHING FINANCIAL AID ELIGIBILITY

Students whose aid eligibility has been cancelled due to lack of Satisfactory Academic Progress may become aid eligible the semester after they enroll for a minimum of six (6) credits in one semester (pay for them with resources other than financial aid) and complete a minimum of 67% of the credits enrolled for with a minimum 2.0 semester GPA.

FINANCIAL AID ADJUSTMENTS
/ENROLLMENT CHANGES

If a student withdraws (officially or unofficially) from all classes before 60% of the semester is completed federal regulations require NMC to determine the amount of financial aid the student has earned for that semester of enrollment. A student may be eligible to retain the percentage of Title IV aid earned that is equal to the percentage of the enrollment period that was completed. These funds will be credited against charges incurred for that semester (i.e. tuition/fees, books/supplies, on-campus room and board, and short term loans). If the charges incurred for the period of that semester exceed the adjusted financial aid the student is responsible for the balance. If the adjusted financial aid exceeds the charges incurred for that semester the student will receive the remaining portion. The unearned Title IV aid must then be returned to the appropriate federal aid program.

ORDER OF REFUND DISTRIBUTION:

- Federal Unsubsidized Stafford Loan
- Federal Subsidized Stafford Loan
- Federal PLUS Loan
- Federal Pell Grant
- Academic Competitiveness Grant
- Federal SEOG Grant
- Other Title IV Aid

Student financial aid recipients may receive the portion of their financial aid based on the Federal Return to Title IV Funds Policy (sample calculations may be obtained in the Financial Aid Office).

- The student aid recipient who withdraws officially or unofficially from all classes after aid has been finalized for the semester will be placed on financial aid probation as outlined in the NMC Satisfactory Academic Progress policy. If that student is currently on financial aid probation at the time of withdrawal, he/she will be ineligible to receive further aid until Satisfactory Academic Progress can be demonstrated, pending mitigating circumstances.

- Dropping or failure to attend classes may result in a financial aid adjustment for the semester and could also affect the student’s Satisfactory Academic Progress. A student’s credit load is established at the time aid is finalized; approximately 15 calendar days into the semester for Fall and Spring, approximately 7 calendar days for Summer’s main session.

REPEATING A COURSE

For financial aid purposes, classes that are repeated may not be counted in total number of credits taken for the semester if the prior class can be counted toward graduation. If a course can be repeated and included for financial aid purposes it can only be taken three (3) times and still be aid eligible.

Financial Aid Sources

Qualified students may be eligible for federal, state and local grants, scholarships, loans, and employment. Most of the scholarships listed on the following pages have been made possible by federal and state legislation or donations to Northwestern Michigan College by Grand Traverse area individuals, organizations, and business firms.
Scholarships & Grants

Pages 35-41 summarize the types of scholarships and grants available at NMC, including government-sponsored, institutional, and privately donated. The first step to a scholarship is filing the Free Application for Federal Student Aid, available at www.fafsa.ed.gov or in the Financial Aid Office (Tanis 142). The FAFSA is used to determine financial need. Many NMC scholarships require no additional applications.

Since criteria and availability of funds are subject to change, visit www.nmc.edu/financialaid for the most updated Scholarship and Grant information.

Government Sponsored

Federal Academic Competitiveness Grant (ACG) - Provides up to $750 for freshman level students and $1,300 for sophomore level students with a 3.0 GPA seeking an Associate's degree or Certificate. The student must be receiving a Pell Grant, be a U.S. citizen or eligible non-citizen, have completed a rigorous high school program and be attending at least half-time (6 credits or more).

Federal Pell Grant - Provides grants up to $5,350 per year (2009-2010 pending Federal funding levels). Full-time, three-quarter time, half-time, and less than half-time awards are based on student need, which is prorated accordingly.

Federal Supplemental Educational Opportunity Grant - Provides grants up to $4,000 per year to those in exceptional need. Minimum half-time enrollment is required.

U.S. Maritime Administration Student Incentive Payments of $4,000 per year for four years are available to a select number of qualifying cadets in each entering class at the Great Lakes Maritime Academy. Details on the program are available through the GLMA Department of Naval Science.

Michigan Adult Part-Time Grant - Provides grants up to $600 per year to adult students enrolled for 3-11 credits each semester. Maximum funding is for 24 months. Apply using separate application available in Financial Aid Office.

Michigan Competitive Scholarship - Provides scholarships up to $1,300 per year based on ACT scores and financial need. This award is tuition/fee restricted.

Michigan Educational Opportunity Grant - Provides grants up to $1,000 per year to students enrolled on a minimum half-time basis.

Michigan Merit Exam and apply within two years of graduation for authorization information. Students must be enrolled on at least a half-time basis each semester. Additional funding may extend to the university level after transferring from a community college. Contact your high school counselor for an application.
Institutional Scholarships

NMC Presidential Scholarships - Awarded each spring to academically superior seniors from the NMC service area high schools. A 3.75 GPA is required, along with a recommendation from the school’s principal or counselor. The number of scholarships and the funding may vary each year. If a Presidential scholar is eligible for other tuition-restricted awards (i.e. TIP, Michigan Competitive Scholarship, Native American Tuition Waiver, etc.), those awards will be applied first. Presidential scholarship funds may be used for any remaining balance due at NMC for tuition, fees, or required books and supplies. At NMC, Presidential scholars must maintain a 3.25 grade point average as a full-time student (12 or more credits) to re-main eligible. Recipients are also required to perform community volunteer service each semester. For applications and more information, contact NMC’s Admissions Office.

NMC Divisional Scholarships - Provide up to $2,000 per academic year to second-year students. Application and selection are made through each academic area during Spring Semester for an award for the next academic year. If a Divisional scholar is eligible for other tuition-restricted awards (i.e. TIP, Michigan Competitive Scholarship, Native American Tuition Waiver, etc.) those awards will be applied first. Any remaining balance due for tuition and fees or required books and supplies may be covered by the Divisional Scholarship funds. Details of the application process and eligibility requirements are available in each academic area office.

NMC Honors Scholarships - Awarded by the Honors Scholarship Committee. Eight scholarships of $2,000 each are awarded to full-time students (minimum of 12 credit hours) and four scholarships of $1,000 each are awarded to part-time students (minimum of six credit hours). Candidates must have earned a minimum 20 semester credit hours at NMC with at least a 3.5 grade point average and three credit hours in the Honors Program. Details of the application process and additional eligibility requirements are available at www.nmc.edu/honors or call Honors Program advisor at (231) 995-1041.

NMC Commitment Scholarships - Awarded to students from school districts in NMC’s service area selected in eighth grade by their principals and counselors. These academically promising students with financial need are encouraged to complete high school and attend NMC with scholarship support. Recipients must commit to satisfactory academic progress, effort and citizenship. Upon high school graduation, students who have met all requirements receive scholarships. In order to receive this scholarship the student must apply for financial aid using the FAFSA. If a Commitment award student is eligible for other gift aid, those awards will be applied first toward the student’s tuition and fees. Commitment scholarships are for tuition and fees only.

Adopt-a-Student Grants - Awarded to students enrolled for six or more credit hours who are residents of Antrim, Benzie, Grand Traverse, Kalkaska, Leelanau, or Wexford County. The amounts of the grants vary. Adopt-a-Student Grants are awarded based on financial need and require a cumulative minimum 2.5 grade point average. If a recipient is eligible for other restricted awards (TIP, Michigan Competitive Scholarship, Native American Tuition Waiver, etc.), those awards will be applied first. Scholarship funds may be used for remaining tuition, fees, required books and supplies.

Visit www.nmc.edu/financialaid for the most detailed and updated criteria for all scholarships.

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<td></td>
</tr>
<tr>
<td>Spearing-Kaye Memorial</td>
<td>3.00</td>
<td>6.00</td>
<td>Suttons Bay preference</td>
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<td>$500</td>
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</tr>
<tr>
<td>Traverse City Women’s Club</td>
<td>Y</td>
<td>12.00</td>
<td>Service Area</td>
<td></td>
<td>Varies</td>
<td></td>
</tr>
<tr>
<td>Wilmeth Social Science</td>
<td>Y</td>
<td>3.00</td>
<td>6.00</td>
<td>Open</td>
<td>Y 1+ - $500</td>
<td></td>
</tr>
</tbody>
</table>

### Technical Scholarships

<table>
<thead>
<tr>
<th>Scholarship Name</th>
<th>Need Based</th>
<th>Min GPA</th>
<th>Min Term Credits</th>
<th>Residency</th>
<th>Other Criteria</th>
<th>Award</th>
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<tbody>
<tr>
<td>Anderson-Dale</td>
<td>Y</td>
<td>2.00</td>
<td>6.00</td>
<td>Open</td>
<td>Varies</td>
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<tr>
<td>Auto Technology</td>
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<td>6.00</td>
<td>Open</td>
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</tr>
<tr>
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<td></td>
<td>12.00</td>
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</tr>
<tr>
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<td>6.00</td>
<td>Open</td>
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<td>2 - $200</td>
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<td>Cowell-Wayne G Memorial</td>
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<td>Service Area</td>
<td></td>
<td>Varies</td>
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<tr>
<td>Drafting</td>
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<td>Open</td>
<td></td>
<td>Varies</td>
<td></td>
</tr>
<tr>
<td>MacIntosh-Mike Memorial</td>
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<td>Y $500</td>
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<tr>
<td>NMC Technical</td>
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<td></td>
<td>Service Area</td>
<td></td>
<td>Varies</td>
<td></td>
</tr>
<tr>
<td>Stulen-Frank &amp; Dorothy MTEC</td>
<td>Y</td>
<td></td>
<td>Open</td>
<td></td>
<td>Varies</td>
<td></td>
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<tr>
<td>TC Exchange Club</td>
<td>Y</td>
<td></td>
<td>Specific MI County preferences, resident for 2 years</td>
<td></td>
<td>Varies</td>
<td></td>
</tr>
<tr>
<td>Technical</td>
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<td></td>
<td>Open</td>
<td></td>
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<tr>
<td>Young-R M Technical</td>
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<td>6.00</td>
<td>Service Area</td>
<td></td>
<td>$500</td>
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</tbody>
</table>

Visit [www.nmc.edu/financialaid](http://www.nmc.edu/financialaid) for the most detailed and updated criteria for all scholarships.
Loans

Short-Term Loans
NMC may provide a short-term loan to a student who is in need of emergency funding to cover a portion of their on-campus expenses (tuition, fees, required books/supplies, or housing) provided they have applied for financial aid through the Free Application for Federal Student Aid (FAFSA) and are eligible for funding. This loan is interest free provided it is repaid by the due date (usually within 30-60 days).

Sources of Short-Term Loans Are:
Great Lakes Maritime Revolving Loan Fund - Cadets who are officially enrolled in the Academy can borrow funds to cover a portion of tuition/fees, books and required supplies, on/off-campus room/board or transportation costs. A written recommendation is required from a member of the GLMA Scholarship Committee and repayment is required within 90 days or the end of that respective semester, whichever is first.

Long-Term Loans
Students must have a FAFSA on file in order to receive any type of educational loan.

Federal Stafford Loan Program - After having applied for financial aid via the FAFSA, a student may borrow up to $5,500 as a dependent freshman, $6,500 as a dependent sophomore with an aggregate loan maximum of $31,000. A freshman student who is considered Independent may borrow up to $9,500 and $10,500 as a sophomore with an aggregate loan maximum of $57,000 for undergraduate studies. In order to be eligible for a Stafford Loan a student must be taking classes toward their degree, be enrolled for at least six (6) credits, and have a 2.0 cumulative GPA. If the student does not have a 2.0 cumulative GPA but aid has not been canceled the loan will be held for certification until mid-semester. If the student does not have any unsatisfactory remarks at this time the loan will be reviewed for eligibility and processed.

Federal Parent Loan for Undergraduate Students (PLUS) - The parent(s) of a dependent student (who has filed a FAFSA) may borrow under this program for their child’s educational expenses. The maximum per year is the cost of education minus any financial aid. Interest rates on Stafford and PLUS loans first disbursed after July 1, 2006 are at a fixed rate. The interest rates on existing variable rate Stafford and PLUS loans are adjusted annually on July 1, based on the last 91-day T-bill auction in May.

Applications for the Subsidized, Unsubsidized and parent PLUS loans are available online www.nmc.edu/financialaid or through the Financial Aid Office. Please note: In order to be eligible for any of the above federal loan programs a student must be enrolled in a minimum of 6 credits with all enrolled courses approved toward their program of study. Students with less than a 2.0 GPA will be reviewed for loan eligibility after mid-semester grading and may be eligible for certification if there are no “Unsatisfactory” remarks noted at that time.

Student Employment
It is a policy at NMC that a student employee, whether or not on Federal Work-Study or on Michigan Work-Study, is a part-time employee who is enrolled (6 credits minimum) and regularly attending classes at NMC. The student’s primary purpose for being at NMC must be to further his or her education.

Student employees are eligible to work twenty (20) hours per week during the semester and forty (40) hours per week during break. Student employees must be enrolled at least half-time (6 credits Fall/Spring and 3 credits Summer) each semester. Any student employee who is no longer enrolled at NMC must be terminated from employment.

It is recommended that students wishing employment on campus file for financial aid using the Free Application for Federal Student Aid (FAFSA) and should register with the Career and Employment Services Office in the Osterlin Library, (231) 995-1041.

Federal Work-Study & Michigan Work Study Programs
Eligibility under these programs requires a student to have demonstrated financial need, be making satisfactory academic progress and be enrolled at least half-time. The basic pay rate is according to the NMC Student Assistant pay scale.

Veterans

Educational Benefits
The NMC Veterans Office is located in the Records/Registration Office to assist veterans in exploring financial aid opportunities, prepare requests for benefits, and provide certification of enrollment. Determination of VA educational benefits lies with the regional office in St. Louis, MO.

There are currently seven active categories of benefit programs under which veterans and eligible dependents are classified:

Chapter 30.................Montgomery G.I. Bill
Chapter 31.................VA Vocational Rehabilitation
Chapter 32.................Veterans Education Assistance Program
Chapter 33.................Post - 9/11 GI Bill
Chapter 35.................Eligible Dependents and Survivors
Chapter 1606..............Reservists - Montgomery G.I. Bill
Chapter 1607..............REAP

Michigan Veterans’ Trust Fund
Disabled veterans approved under Chapter 31 will be given a waiver for tuition, fees and supplies. Those eligible for Michigan Veterans’ Trust Fund will be given a waiver for tuition and fees. All others are required to make payment directly to the college by the required published final payment date.
The amount of veteran or dependent educational benefits varies according to the chapter of eligibility. Standard credit load requirements for determining rate-of-payment are:

- **Full-time** ........................................... min. of 12 credit hours
- **Three-quarter time** ............................. 9 to 11 credit hours
- **Half-time** ................................................... 6 to 8 credit hours
- **Less than half-time** ......................... 1 to 5 credit hours; eligible for tuition and fee reimbursement only.

Check with the NMC VA representative for summer and partial semester credit load requirements: (231) 995-1057.

**Responsibilities**

1. Register for classes early. Certification can only be granted towards those courses required to satisfy degree requirements as indicated on VA form 1990, 1995, or 5490.

2. In order to receive educational benefits in a timely manner you must provide a copy of your schedule of courses each semester to the NMC Veterans Office for certification to the Regional Office in St. Louis, MO.

3. Monthly Verification - Veteran students who receive benefits under Chapter 30, 34 and 1606 must verify their enrollment monthly to insure prompt payment of their VA benefits. The earliest a student can self certify is the last day of the month either at www.gibill.va.gov or by phone: (877) 823-2378. Select “certify your attendance” from the “Information for Benefit Recipients” menu.

4. Report changes in address, phone number, number of dependents, and changes regarding eligibility to the NMC Veterans Office immediately.

5. Promptly inform the Veterans Office of any changes in your enrollment that would affect your benefits or program. If you reduce your course load, fail to attend, or withdraw from all classes, benefits will ordinarily be reduced or discontinued from the beginning of the semester, except in special circumstances.

6. Benefits can be paid for courses you are currently taking and that are required for your degree program.

7. Veterans and other eligible persons receiving educational benefits must conform to the College Regulations and Standards of Progress as specified by NMC. These Standards of Progress include academic achievement (maintain a 2.0 GPA) and attendance as well as standards of conduct.

8. A report will be made to the VA if unsatisfactory progress is made which may result in termination of VA benefits. A reinstatement of benefits may be possible only after the cause for unsatisfactory progress has been removed and there is a reasonable likelihood of academic success.

9. A veteran’s eligibility for educational benefits expires ten years from the date of discharge from the last period of active duty.

Advance payment may be available to qualified veterans and dependents. Contact the NMC Veterans Office for details, Records/Registration Office, Tanis Building, (231) 995-1057.

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**Placement & Orientation**

**Placement Assessment for New Students**

Once you have been admitted to NMC, you must complete the COMPASS Placement Test for reading, writing and math placement. This test will place you into appropriate courses. Students are required to begin these courses in their first semester and complete the sequence in subsequent semesters: ENG 97, ENG 99, ENG 107, ENG 108, ENG 11/111, MTH 06/08, MTH 08, MTH 10/23, MTH 23, MTH 11/111, MTH 111. COMPASS is given daily, Monday through Friday, in Career and Employment Services in the Osterlin Building. You will need to bring photo identification, your student identification number, and a calculator. COMPASS is not timed and is administered on computer. Visit [www.act.org/compass](http://www.act.org/compass) for sample questions.

ACT scores of 19 or higher in reading and English and/or a 24 or higher in math may be used for course placement.

A COMPASS resource manual is available for review in the career office. In addition to the sample questions listed at the site above, the website [www.testprepreview.com](http://www.testprepreview.com) is suggested for review. Select COMPASS test on this site. You may find it helpful to refresh your skills by using the software available in the Center for Learning. Two programs, MultiMedia and Plato are especially good at sharpening skills you may not have used recently. For additional information, call (231) 995-1041.

**Orientation & Registration for New Students**

Orientation and registration for new students is a convenient one-stop process. When you receive your acceptance letter to NMC, you also receive information about the Orientation and Registration program that is designed to acquaint new students with the campus and to plan for the best Schedule of Classes to insure success at NMC. Part of the orientation program includes a placement test which assesses skills in reading, writing, and math as discussed in above. You will have an opportunity to discuss your test scores one-on-one with an advisor as well as transfer possibilities and other pertinent course information. After selecting the best individual schedule, students then register for classes.
Records & Registration

Northwestern Michigan College provides both online and in-person opportunities for admitted students to register for academic classes. The Records and Registration Office assists students with registration, transcripts, grades, enrollment verification, residency information, address changes, Veterans Affairs information, degree audits, graduation and prior credit opportunities. See Academic Policies beginning on page 45 for more details.

Registration

Registration begins several months before classes start and continues on a daily basis until the end of the session’s add period. There are many sessions: early sessions, 15-week sessions (the main session), late sessions, etc, so note the start dates of your courses and be sure to register before the session begins. The dates for the main session will be published in the Schedule of Classes and are also available online.

ONLINE REGISTRATION:
Available at www.nmc.edu/webregistration and begins one week prior to office registration.

OFFICE REGISTRATION:
Takes place in the Records and Registration Office in the Tanis Building.

Registration after the start of the session may take place only if you obtain special permission from the instructor and the class is not full.

Earning a Second Associate Degree

You may earn a second associate degree at NMC. Credits will be evaluated from one degree to the second degree, as applicable. See an advisor or counselor for more information. Both degrees may be earned at the same time.

Catalog of Record

When you enroll for academic credit at NMC, your graduation requirements are governed by the catalog in effect at the time of their enrollment. This changes:

1. If you are not enrolled for three or more consecutive semesters (excluding summer), or
2. If the catalog is revised (print or web) and you wish to follow the newer catalog, or
3. If you change your program of study, you would be governed by the catalog in effect when the change is made.

When you do not enroll for three or more consecutive semesters (excluding summer), you will be governed by the catalog in effect when you re-enroll.

Graduation

Applying for Graduation

One semester before you anticipate completing the requirements for your degree or certificate program, fill out an Application for Graduation found online. You may also pick up a form at the Records and Registration Office on the main floor of the Tanis Building.

Those participating in the graduation ceremony need to contact the NMC Bookstore, in the lower level of West Hall, to order caps and gowns.

Graduation

Graduation from NMC signifies that you have achieved the educational objectives of the curriculum. You must complete all degree requirements and achieve an overall grade point average of 2.0. We strongly encourage graduates to participate in the Commencement ceremony in May so you can be recognized for your achievements. This also gives you a time to thank the family and friends whose support made the accomplishment possible. Your degree/certificate will be mailed to you after the semester you complete the requirements. Applying for graduation is a simple process. Application for graduation should be made at least one semester prior to the semester of graduation. Please see above.

Graduation with Honors

Students who have completed all the requirements for their degree, based on their specific program of study, and who have achieved an overall grade point average of between 3.5 and 4.0 graduate with honors. The following categories are recognized:

3.50 - 3.75 = With Honor
3.76 - 3.90 = With High Honor
3.91 - 4.00 = With Highest Honor

Students who have completed all the requirements for their certificate and have achieved an overall grade point average of between 3.5 and 4.0 graduate with outstanding performance.

Honors Convocation

At the close of the academic year, NMC holds its annual Honors Convocation for the purpose of recognizing outstanding students. This ceremony for exemplary students and their families is sponsored by the NMC Honors Office and NMC faculty and provides the opportunity to present the Departmental Awards, Divisional Scholarships, Honors Scholarships and Adult Student of the Year Award.
**Student Services**

**Academic Policies**

Northwestern Michigan College is committed to open access to higher education and to your academic success. Our intent is to offer support and remediation for students who are considered at risk of academic failure.

**Attendance**

Attendance is critical to student academic progress. Even though attendance expectations may differ from course to course, you are expected to be present, prepared, and be active participants in your classes. Students will receive a written attendance policy from the instructor at the first class meeting. A student who is repeatedly absent from class without good reason may be withdrawn from the course by the instructor.

**Credit for Prior Learning**

Students who have achieved competency in certain skill or course work areas may receive credit for classes or waivers of prerequisite classes. This competency could be gained through life, work, or military experience; vocational training at an area vocational, career or skill center; or completion of high school advanced placement courses. Assessment of proficiencies may be demonstrated in a variety of ways. The following options are available to you:

- AP (Advanced Placement) credit achieved through high school courses;
- CLEP (College Level Examination Program);
- ACE (American Council on Education) for veterans;
- Competency Assessment in some NMC courses;
- Course waiver;
- Articulation credit for work at the Traverse Bay Area Career Tech Center

Students who wish to pursue credit or waivers for competencies should go to [www.nmc.edu/records](http://www.nmc.edu/records) or contact the NMC Registrar in the Records and Registration Office in the Tanis Building. Students wanting information or to register for the CLEP exam should call (231) 995-1360.

**Credit Equivalences**

An associate degree requires a minimum of 64 semester credits, or 96 quarter credits. A bachelor’s degree usually requires 120-128 semester credits, or 180-192 quarter credits. Thus, when credits are transferred from a college on the quarter system to a college on the semester system, a quarter credit is evaluated as two-thirds of a semester credit; for example, 30 quarter credits become 20 semester credits. No credits are “lost;” they are simply converted to a different unit. This may result, however, in some fractional credits. It is advisable to get complete transfer information from a counselor.

**Adding Classes**

Students (except for Dental Assisting, Nursing, Maritime, and Law Enforcement students) may be permitted to register without a signature into classes during the first week of its session provided the students have the required prerequisites, the class still has open seats, and the class has not met yet. Dental Assisting, Nursing, Maritime, and Law Enforcement students need the approval of the appropriate Academic Area office. After the first class has met, the student must seek the permission to add the class from the Academic Area office. Some Academic Areas may not allow late registration.

After the Drop/Add Period, students will not be permitted to add any courses. The only exceptions will be for special circumstances in the Aviation, Maritime, or Technical Programs. In these cases, students will need approval from the appropriate academic office.

**Dropping Classes**

Students must officially drop classes during the designated dates listed in the semester Schedule of Classes or online to obtain any refund or prevent receiving a grade at the end of the semester.

- Students dropping all of their classes must either complete an enrollment form in the Records and Registration Office, or mail or fax (231) 995-1570 a letter to the Records Office. Include name, NMC ID or social security number, semester and signature. The date the letter is received is the official date of the withdrawal. Courses may also be dropped on the NMC web site if there are no holds on the student’s records.

Students dropping part of their classes may do so in the Records and Registration Office, or on the NMC web site if no holds are present. If you wish to drop online and have a hold, call (231) 995-1049 for options.

Courses may be dropped without record through the add period of the session that the course is offered. Courses dropped after the add period and before the last 25 percent of the session will be drop with record. A grade of “W” (Withdrawn) will be assigned. This grade will not affect the NMC grade point average. It is the student’s responsibility to notify their instructor(s) of the drop and be aware of any financial obligations.

Dropping classes may affect financial aid. Contact the Financial Aid Office if you have any questions. Students dropping all their classes will be subject to the Federal Title IV Funds Policy.

The Add and Drop policies are subject to change. Go to [www.nmc.edu/records](http://www.nmc.edu/records) to view any updates online.
Grades
STANDARD GRADING SYSTEM AT NMC:

4.0 - outstanding
3.5 - excellent
3.0 - good
2.5 - above average
2.0 - average
1.5 - below average
1.0 - deficient
0.0 - failed
S - satisfactory
U - unsatisfactory
I - incomplete
W - withdrawn
FA - failed to attend
AU - audit

S/U (satisfactory/unsatisfactory) may be given to designate the level of performance in courses which evaluate completion of specified competencies. (For designated courses only.)

I (incomplete) may be given at the discretion of the instructor if it is believed that the student has a valid reason for not having completed the course work and can fulfill the requirements of the course during the next semester. An incomplete not made up by the end of the next semester automatically becomes a 0.0. Incompletes may be extended one additional semester at the discretion of the instructor.

W (withdrawn) will be given to the student who officially withdraws from the class after the add period and before the last 25 percent of the session.

FA (failed to attend)—may be given if a student registered for a course but never attended and did not officially drop. FA will not affect a student’s GPA.

AU (audit) can be issued at the time of registration upon full payment of tuition and fees if a student wishes to attend a class without receiving college academic credit or a grade. Changing from “credit” to “audit” may take place up to approximately 50 percent of the academic session. Changing from “audit” to “credit” must be completed during the add period. Dates can be found online or in the current Schedule of Classes.

GOOD STANDING
You are considered to be in academic good standing when you have a minimum overall grade point average of 2.0.

GRADE POINT AVERAGE
Grade point average (GPA) is a weighted average of grades. A grade for a course is multiplied by the credit hours for that course to obtain “points.” Total points are then divided by total credit hours to determine the grade point average.

The semester GPA is the weighted GPA. For example:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4.0</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>2.0</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>22 divided by 8 = 2.75 GPA</td>
</tr>
</tbody>
</table>

Visit [www.nmc.edu/counseling](http://www.nmc.edu/counseling) for an online GPA calculator to assist in determining GPA. For questions, contact the Records Office at (231) 995-1048.

When a course is repeated, both the most recent grade and the previous grade will appear on the transcript (official academic record). However, only the last grade will be counted in the NMC cumulative grade point average. Grades of S, U, I, W, FA, and AU are not used in the computation of grade point averages. Consult with the Counseling Center if this concerns you.

GRADE POINT RE-EVALUATION
Northwestern Michigan College offers you an opportunity to improve upon a cumulative grade point average by repeating a course or courses, or by petitioning for a grade point re-evaluation under special circumstances. These options provide you with the opportunity to achieve a cumulative grade point average that is truly representative of your capabilities. You may pursue this option by calling the Counseling Center for petitions and further information: (231) 995-1040. A student may exercise this option once. Transfer institutions may or may not recognize GPA re-evaluation.
**Academic Probation**

Any student whose cumulative grade point average is below a 2.0 is considered academically at risk and will be placed on academic probation. The purpose of academic probation is to assure careful academic planning and referral to support services while the student attempts to improve his or her academic record.

**SUPPORT & INTERVENTION FOR STUDENTS ON ACADEMIC PROBATION**

Any student who is on probation must meet with a counselor or academic advisor prior to registering for any semester or session until the status of probation is removed. This enables the student to build a realistic academic program and receive appropriate referrals to support services that afford the maximum possibility for success. Students who are on probation may not take more than 12 semester credits during fall/spring semester, or six credits during the summer session. The status of academic probation is removed when the student’s cumulative grade point average becomes 2.0 or higher.

**Academic Suspension**

When a student has been on probation for two semesters and is unable to maintain a current grade point average of 2.0 or higher, that student will be suspended from academic enrollment for a period of one semester of the regular academic year. A student may appeal academic suspension to the Registrar in writing.

**RESTATEMENT FOLLOWING ACADEMIC SUSPENSION**

A student who has been academically suspended is encouraged to petition the Registrar for reinstatement when the waiting period is over if he/she feels that sufficient changes have occurred to enable academic success. This petition must be made in writing at least two weeks prior to the beginning of the semester for which the student is seeking re-entry.

**Mid-semester Progress Report**

Learning is dependent upon regular feedback regarding student performance. Students and instructors are both responsible for this communication. Students achieving less than a 2.0 in any 15-week class may receive written notification by the midpoint of the academic session encouraging them to contact their instructor.

**Repeating Courses**

Northwestern Michigan College offers you an opportunity to improve upon a cumulative GPA by repeating a course or courses. All courses and grades will appear on the transcript (official academic record); however, only the last grade will be counted in the cumulative grade point average. Most courses at NMC can be taken a maximum of three times. Exceptions are activity courses such as physical education. Anatomy and Physiology may only be taken once unless special approval is given. See a counselor or the Science/Math Office manager.

**Transcripts**

Students who plan to attend another college or university will need to send an official transcript of their academic record to that college. A transcript is a list of the academic courses that have taken at NMC and the grades earned. Your official transcript will be sent to colleges or employers upon written request. If you request the transcript be sent to you, it will be unofficial. Each request should include:

1. Your name, permanent address, and NMC ID or social security number,
2. the name and address where the transcript is to be mailed,
3. your signature,
4. your phone number and
5. $5.00 for each transcript requested.

The request may be made in person, by mail, online through NMC Self-Service or by fax (231) 995-1570. Online or Fax requests will be honored if you include your charge card number (Visa, MasterCard or Discover) and expiration date to cover the transcript fee. Transcripts can be faxed to a third party for $7.00. To protect the confidentiality of the student, telephone requests cannot be honored. You may also obtain a student copy of your transcript. The official transcript has an embossed stamp and the student transcript does not. Both the official and student transcript fee is $5.00. Transcript requests can be completed only if all fees and obligations to NMC have been fulfilled. Current students may also go to www.nmc.edu/webregistration to view their transcript.

**Transfer Information**

If you are planning to transfer to another institution, you should:

1. Speak with a NMC counselor or academic advisor.
2. Review the transfer guide for the program you wish to enter.
3. Visit with a representative of the institution early in your education.

The NMC Counseling Center has catalogs and transfer guides from most Michigan colleges and universities. Representatives of Michigan colleges and universities visit the NMC campus each fall and spring to discuss transfer requirements. It is helpful to visit four-year colleges and universities early to facilitate the transfer process. Go to www.nmc.edu/counseling to view transfer guides.
Reach for Academic Support

Osterlin Library

Get better grades. Find great information in less time!

**Step 1:** Visit the Mark & Helen Osterlin Library at [www.nmc.edu/library](http://www.nmc.edu/library) or in person.

**Step 2:** Ask a librarian for help. We are happy to share our power searching techniques with you.

Digital or Print - We’ve got it: books, journals, newspapers, government documents, e-books, e-journals. The number of electronic information databases to which we subscribe on your behalf extends your information reach far beyond our walls. As a bonus, course reserves can be picked up at the library service desk for in-library use. We offer ample study space and plenty of help.

With all the ways to reach us, there is no excuse not to use us:

- **Reference** ............... (231) 995-1540
- **Service** .................. (231) 995-1060
- **Email** ...................... library@nmc.edu
- **Website** .................. [www.nmc.edu/library](http://www.nmc.edu/library)
- **In Person** .................. Feel free to visit us the old fashioned way - come into the library!

Computer Labs

Equipment and locations:

- Dell computers running Microsoft Windows XP or Vista and the Microsoft Office Suite.
  - Beckett Building, Rm. 204, (231) 995-1068
  - Center for Learning, Osterlin Building, (231) 995-2134
- Library Research Area, Osterlin Building, (231) 995-1540
- Parsons-Stulen M-TEC, Rm. 206, (231) 995-2000
- Zonta Library, University Center, (231) 995-1749

- Apple Macintosh computers running MAC OS X and the Microsoft Office Suite.
  - Center for Learning, Osterlin Building, (231) 995-2134
  - Fine Arts Building, FA 120, (231) 995-1325

Writing Center

When you visit the Writing Center, peer editors or “readers” will carefully read your paper and analyze its content, organization, mechanics and evidence. You conference with the reader to exchange ideas about writing in a more effective manner and you will receive a summary of the strengths of your paper and suggestions on what you might do to improve it. Readers are students from all areas of study who have had success in writing. The Writing Center is free and located in Scholars Hall, Room 221 or (231) 995-1189.

Center for Learning

The Center for Learning provides a variety of academic support services using current technology and a professional staff available 70 hours per week. The Center is located on the main floor of the Osterlin Building. Some services and resources include:

**ACADEMIC SKILLS IMPROVEMENT**
- Skill-building in reading, writing, math (all levels)
- Textbook software support
- Personal skill development, including study skills and time management

**COMPUTER APPLICATIONS**
- Specialty software such as AutoCAD, nursing, dental assisting, graphics etc.
- Multiple word processing programs
- Career and scholarship exploration software

**TEST PROCTORING**
- Many faculty offer quizzes and exams here. Please bring photo ID.

**OTHER**
- Open Learning classes, self-paced, often computer-based
- Scanner and digital camera access
- Testing

For more information, stop into the Center for Learning or call (231) 995-2134.

Tutoring & Support Services

Tutoring and Support Services are located on the main floor of the Osterlin Building. NMC strives to insure that students are valued and respected regardless of ethnicity, race, religion, age, gender, sexual orientation, or disability.

- **Tutoring:** The Tutorial Program offers workshops, group and drop-in tutoring. Tutors are available in many NMC courses to supplement the material covered in class. Call (231) 995-1138.
- **Support Services:** Services available to students with documented disabilities include: academic advising, classroom accommodations and testing modifications. Call (231) 995-1929, 995-1139, 995-1038 (TTY) for more information.
Career Planning & Placement

Confused about your career direction? Career and Employment Services can help you clarify your career path.

- Take the Myers-Briggs Type Indicator to determine which careers most suit your personality.
- Use the Strong Interest Inventory to compare your interests to people already working in different careers.
- Identify what you like to do and what’s important to you with a skills and values card sort instrument.
- Use easy, informative software programs to research careers or explore.
- Enroll in Career Exploration and Planning (PSY 100), a one-credit elective course, that includes all of the above and more.

Stop by Career and Employment Services in the Osterlin Building, visit www.nmc.edu/careers or call (231) 995-1041.

Employment Opportunities

Looking for a job? NMC maintains a list of regional job openings online at www.nmc.edu/careers. You may also view these lists in person in our office or check this site for employers who are conducting interviews on campus. Students seeking on-campus employment may apply through Career and Employment Services in the Osterlin Library. Any student who is enrolled for a minimum of six NMC credits per semester is eligible for on-campus employment. Visit www.nmc.edu/careers or call (231) 995-1041.

Employability Skills

NMC’s Career and Employment Services can help you gain necessary job-search skills for locating part- or full-time work. We have resources to assist you in writing your resume and cover letters, opportunities to practice for an interview and acquire skills on how to conduct your employment search. Advice and assistance on these important skills may be obtained through workshops, seminars, individual appointments, and printed materials. If you are looking for employment as a student or when you graduate, you may be interested utilizing our services. Post your profile with us. Career and Employment Services is located in the Osterlin Building, visit www.nmc.edu/careers or call (231) 995-1041.

Counseling Services

The Counseling Center is located in the Biederman Building, Room 104. For information visit www.nmc.edu/counseling or call (231) 995-1040.

Academic Advising

Academic advising at NMC is a shared responsibility. The Counseling Center, with a staff of licensed professional counselors and advisors, offers a full complement of advising services for all levels of students. First-year students will meet with an advisor during orientation, but are also required to meet with an academic advisor again during their first semester to review career options, transfer possibilities, and course selections. Students are encouraged to stay connected to an advisor throughout their time at NMC to ensure they are on the right track.

Transfer Advising

The Counseling Center staff has developed an extensive collection of online transfer guides for students planning to transfer to 4 year universities in Michigan. Students who follow transfer guides and team up with one of our advisors throughout their stay at NMC will have good information for a smooth transfer. If a transfer guide doesn’t exist for a specific school or program, the counseling staff will assist in selecting appropriate courses. NMC also recommends that students personally contact the transfer institution they are considering for additional information and questions. NMC invites students to visit www.nmc.edu/counseling to compare requirements at different schools.

Career Counseling

Students who are undecided about their career direction may benefit from career counseling and testing provided in the Counseling Center, as well as in the Career Center.

Personal Counseling

You will find professional counseling services to meet a full spectrum of personal needs. In addition to personal counseling, licensed counselors can assist with crisis intervention and referrals when necessary. All personal counseling is on a short-term basis with continuing support available from other agencies. Our services are designed to help students resolve personal difficulties and acquire the skills, attitudes, and abilities that will enable them to take full advantage of their college experience. No fees are charged for counseling services.
Support for Excellence

Adult Student Award
Named by the NMC Barbecue Board, the Adult Student of the Year is recognized at Honors Convocation and presented with a cash award. The Adult Student of the Year is someone who is at least 30 years old, has demonstrated academic performance over time, has a record of academic excellence, has achieved success along with fulfilling family, job, and community responsibilities and has achieved a degree or is near completion. Candidates for this award are nominated by NMC faculty and staff.

Dean's List
Students who have achieved a semester grade point average (GPA) of 3.5 or higher qualify for the Dean's List. Each full-time student (taking 12 credits or more) receives a congratulatory letter from the Vice President for Educational Services. Dean's List students will have their names listed in the lobby between the Biederman and Tanis buildings.

Departmental Awards
At the end of the academic year, each academic department at NMC may select a student for a Departmental Award. Awards are presented to students with high academic achievement who also demonstrate a strong personal commitment to education and exemplify the characteristics necessary for future success in their field. Students are recognized with a certificate and gift at the annual Honors Convocation.

Divisional Scholarships
Each year, NMC's academic areas may award Divisional Scholarships to students who will be returning to NMC and have achieved a minimum of a 3.0 grade point average in their first 20 semester credits at NMC. These scholarships are based on academic excellence and, in combination with other financial aid for which the student is eligible, may provide one year of tuition expenses. Contact the Academic Area office manager for more information and an application early in the Spring Semester.

Faculty Excellence Awards
Each year at commencement, NMC honors two instructors for teaching excellence with the Imogene Wise Faculty Excellence Award, recognizing a regular faculty member, and the Adjunct Faculty Excellence Award. Students are invited to nominate instructors for these awards, as are other faculty, staff and community members. The criteria are:

• Teaching effectiveness
• Rapport with students
• Innovative and interesting approaches
• Sense of dedication

Nomination forms are available during fall and spring semesters in various locations on campus and online. For more information, contact the Center for Instructional Excellence at (231) 995-1155.

Upward Bound
Funded by the U.S. Department of Education, Upward Bound is a college-preparation program which began at NMC in 1989 and serves students from grades 9-12 in Traverse City and Suttons Bay public schools. Student eligibility is determined by several factors, the most significant of which is that neither parent has received a four-year college degree. Another important criterion is the student's commitment to pursue a college preparatory program in high school and to complete a college degree.

This year-round program offers weekly academic tutoring, study assistance, college visits, cultural and personal enrichment activities, assistance in preparing admissions and financial aid papers and career exploration. During the summer, students must be willing to attend a six-week program on the NMC campus which provides an intensive academic focus as well as career education to prepare students for college. Classes include English, literature, lab science, math to pre-calculus and foreign language.

Upward Bound is one of 772 programs nationally and one of 21 in Michigan. There is no cost for participants. For more information, visit nmc.edu/upwardbound or call (231) 995-1393.
Living on Campus

Residence Halls
Close, convenient, affordable... fun! Northwestern Michigan College has a residence hall which offers a unique opportunity to live in a supportive, alcohol/drug-free community. More than just a place to eat and sleep, East Hall provides educational and social activities to promote your personal development. Up to 220 students live in the residence hall, which is a great place to meet people and make new friends.

REQUIREMENT
First-year students under the age of 20, not living with a parent or legal guardian, are required to live in the residence hall.

ROOMS
Rooms are in suite arrangements - two rooms connected by a bathroom to accommodate four students. Each room has two beds, two desks with chairs, and closets with drawer space. Basic cable service and local phone and internet service is available free in each room. Each wing is equipped with a laundry room with washers and dryers. You have the option of living on a same-gender floor, or a coed floor.

MEALS
Flexible dining memberships are available for faculty, staff and students. NMC Food Court in West Hall offers hot breakfasts, lunches and dinners plus a soup, salad and deli bar, while Northwest Grind coffee shop and convenience store offers a menu of ready-made sandwiches, wraps, snacks and drinks. A variety of pre-paid meal plans allow you to choose what works for you. For more information call (231) 995-1678.

ACTIVITIES
The Residence Hall Council and Resident Assistant staff plan a variety of events for residents. If you like to make things happen, get involved with the Residence Hall Council.

TERMS AND CONDITIONS OF OCCUPANCY
The NMC Housing Contract contains guidelines for residence hall living and is available to answer all your questions about occupancy, room assignments, and payment.

RESIDENCE HALL HANDBOOK
Complete information about living in the residence hall is contained in the Residence Hall Handbook and Housing Contract including such topics as:

- Room assignments, guests, changes, repairs and occupancy during breaks
- Housing deposit, charge periods, refund schedule and financial penalty
- Food service, meal options, furniture, electrical appliances, pets
- Rules and regulations, dismissals and contract appeals
- Safety procedures, fire/emergency evacuations, fire alarms, firearms/weapons
- Alcohol/Drug policy

RESIDENCE HALL ALCOHOL & DRUG POLICY
The manufacture, use or sale of alcohol, inhalants, and other drugs are prohibited in the residence hall and adjacent areas, including the athletic fields and parking lots. Alcohol containers and drug paraphernalia are also prohibited. These items will be confiscated by the Housing Staff when found. The residence hall is not a haven from the law; if a local, state or federal law has been violated, a law enforcement agency will be called. Similar guidelines apply for all campus buildings and grounds.

A violation of the Alcohol and Drug Policy may result in immediate dismissal from the residence hall, suspension and/or expulsion from Northwestern Michigan College. This may occur on the first infraction of the Alcohol and Drug Policy.

The complete policy and procedures are available in the Students Rights and Responsibilities and Housing Contract or by calling the Housing Office at (231) 995-1400.

Campus Apartments
NMC has a main-campus apartment complex with three buildings. These apartments are the ideal solution for students age 21 and older who are enrolled in at least 6 credit hours per semester (fall and spring). Students with children will feel at home in the family-friendly setting. Older and international students will enjoy the freedom of living in an apartment within a great community.

The apartment complex contains 4 one-bedroom and 32 two-bedroom units. One of the two-bedroom apartments is wheelchair accessible. Basic utilities (electricity, heat, water, sewer), kitchen appliances (refrigerator, stove, garbage disposal) and trash pick up are included in the rent. Each building has a laundry facility. For more information about the apartments and current costs visit www.nmc.edu/housing or call Campus Services at (231) 995-1111.
Health Services

Student Health Services is located in Room 106 of the Biederman Building and can be reached by calling (231) 995-1255. A family nurse practitioner is on duty Monday through Friday, 9 a.m. to 4 p.m., during the fall and spring semesters. Doctors are available by appointment. Referrals to campus and community resources are made if appropriate. Services include but are not limited to:

- Treatment of illness and injuries
- Academic/sports/job physicals
- Sexually Transmitted Infection testing and treatment
- Allergy injections
- Immunizations
- Gynecological exams & contraception
- Tuberculosis testing
- Health information and counseling
- Laboratory testing onsite
- Nutrition advice
- Limited pharmacy

The General Fee paid by all students includes the services of the nurse practitioner and doctor, some medications, and a reduced fee for some lab tests. In case of illness or injury requiring hospitalization, the use of outpatient facilities, or private physicians’ visits, students are responsible for the charges through personal insurance coverage or direct payment.

All medical records are strictly confidential and are kept for ten years from date of last visit.

Health & Accident Insurance

All students are eligible to enroll in a low-cost health insurance policy specifically for college students. Information and claim forms are available fall and spring semesters. International students are required to have medical insurance to attend NMC. This insurance fulfills this requirement.

Student Government Assoc.

The NMC Student Government Association is comprised of students who represent the student body. It meets weekly. Full or part-time students are eligible to become an SGA representative. A student can become a representative through a signature process or appointed by an academic department. Each academic discipline appoints a representative, and the student body elects three first-year and three second-year students each year to complete the board. SGA is funded by the student activity fee and is responsible for providing a well-rounded program of activities and events. SGA members represent the student body on several college committees. The SGA Constitution is included in the Student Handbook portion of this catalog. For more information on SGA, please contact Lisa Blackford at (231) 995-1043.

Honors, Phi Theta Kappa

Honors Program

To enable you to challenge yourself, Northwestern Michigan College has established an Honors Program with two options:

1. A formal and rigorous two-year program which results in graduation from the Honors Program and
2. “Individualization” of course content for a single course or group of courses for honors credit.

At commencement, Honors Program graduates are recognized; they must have a minimum cumulative GPA of 3.5 and at least 16 semester credits in designated honors courses on their transcript. At graduation the following categories are recognized:

- 3.50 - 3.75 = With Honor, Honors Program Graduate
- 3.76 - 3.90 = With High Honor, Honors Program Graduate
- 3.91 - 4.00 = With Highest Honor, Honor Program Graduate

The Honors Program also sponsors a range of events, seminars, contests, scholarships, field trips and opportunities for study abroad. For information about the Honors Program, visit www.nmc.edu/honors or call (231) 995-1228.

Phi Theta Kappa

Phi Theta Kappa is the internationally recognized honor society for two-year institutions of higher education. Admission is by invitation and is based on completion of 12 semester credit hours toward a degree with at least a 3.5 GPA. The hallmarks of the society are scholarship, leadership, service and fellowship. Phi Theta Kappans are involved in many activities centered around these hallmarks. The service hallmark includes buying school supplies, providing mastectomy pillows for the oncology unit at Munson Hospital, participating in park and beach cleanups and supporting various charity fundraisers. The scholarship hallmark involves an in-depth study of the bi-annual Honor Topic which is coordinated by Phi Theta Kappa International. The NMC chapter sponsors programs and a special satellite seminar series to help NMC students explore this topic in depth. Phi Theta Kappa also explores the topic through movies and discussions.

Leadership activities may involve being an officer in the chapter or providing leadership to other campus/community organizations. Fellowship provides an opportunity to get together with other Phi Theta Kappans. There are opportunities for travel both in the state to three regional conferences and the annual international conference held each spring. Alpha Rho Pi, NMC’s chapter of Phi Theta Kappa, was recognized as the Most Distinguished Chapter in the Michigan region for the 2003-2005 academic years and first runner-up 2005-2008. The officers and members welcome your involvement.

Phi Theta Kappa members wear a gold stole and tassel with their cap and gown at commencement in recognition of their academic achievement. For information on Phi Theta Kappa, call (231) 995-1043.
Student Life

Student Media

NMC MAGAZINE
The magazine is published two or three times a year in print, interactive DVD, and website versions and contains essays, poetry, short stories, illustration, photography, graphic design and other visual communication by NMC students and staff. Themed issues are conceived, edited and published by student volunteers, with honors credits optional. Serving on the magazine staff offers art, literary and design students exciting opportunities to learn about publishing and to express their creativity. Office is in lower level of West Hall.

WHITE PINE PRESS
This award-winning student newspaper is published bi-weekly. Students with an interest in journalism, photography, graphic design, illustration, advertising, or business management acquire excellent hands-on experience. The Office is in the lower level of West Hall. (231) 995-1173.

WNMC: 90.7 FM
Interested in radio broadcasting? WNMC-FM is a volunteer radio station that invites students and community members to take part in both on-air and production opportunities. Technical training is provided for all volunteers. For additional information and to arrange a tour of this facility, call (231) 995-2562.

Volunteer Opportunities
Volunteering is an important way for you to enhance learning, build a resume, and feel the satisfaction of contributing something to the college or the community. There are many ways to serve, from environmental projects to human service experiences. Students may count up to four credits of volunteer time toward degree requirements, or they may participate without credits. For additional information, contact the Service Learning Coordinator at (231) 995-1294.

NMC Career and Employment Services can also assist you with obtaining volunteer positions to enhance your resume and clarify your career decision. You may visit Career and Employment Services in the Osterlin Building, visit www.nmc.edu/careers or call (231) 995-1041.

Clubs & Organizations
To officially register a club or organization on campus, stop by the Student Activities Office in West Hall. To form a new group you must:

1. Establish a purpose that does not discriminate against any student who may wish to participate;
2. Have a faculty or staff advisor;
3. Complete an application to be recognized as a student organization;
4. Update your club’s status on an annual basis by informing the Student Activities Office (231) 995-1043 regarding club officers and contact telephone numbers.

Some of the student organizations available on campus are: Student Government, Residence Hall Council, Phi Theta Kappa, Society for Professional Engineers, International Student Club, Propeller Club, Society of Naval Association Maritime Engineers, Women’s Maritime Organization, Botany Club, Law Enforcement Club, The Native American Student Group, SPECTRUM, Student Christian Ministry, and Habitat for Humanity.

Music
NMC provides a rich opportunity for college students to participate in a wide variety of performing groups based on the student’s background. Students interested in instrumental music can participate in the NMC Concert Band or the Traverse Symphony Civic Strings Program. Guitar students can participate in small ensembles in jazz, classical or contemporary (studio) guitar. Jazz Instrumentalists can participate in one of two jazz bands depending upon experience. Choral students can participate in the NMC Chamber Singers, Grand Traverse Chorale or the Vocal Jazz Ensemble.

All of the above are considered courses and can be taken for elective credit and are readily transferable to four-year colleges and universities. The ensembles provide a showcase for NMC to the community. Performances take place in Milliken Auditorium and in the community. Contact the Music Department Chair for additional information.

Theater
The NMC Players perform works from classical and contemporary theater during Fall and Spring Semester on the NMC campus. Participants are expected to enroll in “Play Production” (THR 211, 212, 213, 214) during that semester. “Play Production” is offered for academic credit or as a non-credit offering through the NMC Extended Educational Services Division. Information on play selection and audition dates is available by calling (231) 995-1174.

Diversity Services
The Diversity Services Office strives to create cultural and ethnic awareness on campus by organizing student groups, hosting speakers, and co-sponsoring events in the community that include all students, staff and faculty. Services include support, academic advising, information regarding the Michigan Indian Tuition Waiver and student group advising. Student groups may include support for GLBT (gay, lesbian, bisexual and transgendered) students, international students, Native American and Hispanic students, and Student Christian Ministry. For more information, call (231) 995-1043. The Diversity Services Office is located in the Student Activities Office in West Hall.
Sports, Health & Fitness

Recreation & Intramural Sports

Intramural Sports are a series of leagues formed to provide fun competition between NMC students. Fall traditionally means co-ed kickball, co-ed softball and football games. During the winter, leagues move inside for floor hockey, co-ed dodgeball, co-ed indoor soccer and co-ed basketball. After spring break is co-ed volleyball. For more information, call (231) 995-1198.

Open Recreation hours are scheduled throughout the year in the gymnasium for pick-up games of basketball, volleyball, and indoor soccer. Outdoor courts are available for basketball and sand volleyball. An athletic field has two softball diamonds and a football/soccer field. A frisbee/disc golf course surrounds East Hall, athletic field and gymnasium.

Sports Clubs

Most evenings the gym is filled with students learning Tae Kwon Do, Kuntaw, Aikido and Judo. NMC is recognized regionally for excellent instruction and successful competitions around the state.

NMC students have formed sports clubs in swing dance, cross-country skiing, rock climbing, sailing and soccer. Any student wishing to start a sports club may do so through the Student Government Association (231) 995-1535. For more information, call the Physical Education Office at (231) 995-1198.

Health & Fitness Center

NMC’s Health and Fitness Center offers fitness circuit conditioning to students and community members, promoting cardiovascular fitness, strength, flexibility, and weight control. The Center features Universal weight machines, exercise bicycles, variable speed escalator treadmills, Nordic Track, elliptical trainers, and stair climber machines. To use the Fitness Center, you can either register for the fitness circuit course or purchase a membership and attend the orientation session for training guidelines. (231) 995-1379

International Students

International Opportunities

NMC welcomes international students each year from all over the world. These students belong to an International Club which sponsors many social and cultural activities. This club is also open to interested American students. Contact the Admissions Office at (231) 995-1034.

Class Cancellations

Inclement Weather Policy

It is the policy of Northwestern Michigan College to maintain normal college operations on all regularly scheduled days, except in very rare cases when severe weather conditions prevent this.

It is further the policy of NMC that each staff member and student will make his or her own determination concerning attendance on unfavorable travel days.

Given unfavorable weather conditions, the college may choose to delay or close, in which case the following actions will be taken:

- For daytime classes, a decision to delay the opening of the college or close entirely will be communicated by 6 a.m.
- For evening schedules, delays or closings will be announced by 3 p.m. There is a possibility that NMC would cancel all day classes and hold evening classes.
- If the college delays opening, students should report to class at the designated opening time. If a student’s class begins before the designated opening time, that class would be canceled unless one-hour of instruction remains after the designated opening time. Up-to-date information regarding class cancellations and college closures will be communicated on the 24-hour telephone line at (231) 995-1100.
- College delays or closures will be reported to area radio and television stations (a list of stations is available in the Office of Institutional Advancement or Educational Services Office), campus video monitors, Cable Channel 13, NMC’s general information number (231) 995-1000, and online at www.nmc.edu/students, select “Daily Class Cancellations” under “Quick Links.”
- College delays or closures will be reported via email to all faculty and staff, via email to all student MBX accounts, and via text message to those students who are subscribed to receive alerts on their cell phones.
- For weekend academic courses, the college closure/delay decision will first be enforced. If, on the other hand, a faculty member determined he/she cannot make it to campus for their particular class, the faculty member teaching the weekend course will update his/her voicemail greeting with the class cancellation information. Weekend students should then call their instructor’s voicemail rather than the 24-hour telephone line.

Class Cancellations Due to Instructor Absence

In the event an instructor would need to cancel his/her weekday class, this information will be communicated continuously via the 24-hour telephone line at (231) 995-1100, online at www.nmc.edu/students and displayed on campus video monitors.

For weekend class cancellations, students should call their instructor’s voicemail rather than the 24-hour telephone line.
Charting Your Course of Study

**Decide on your career goals and course of study.**

- Determine what degree your desired career requires. Are you interested in a transfer degree, such as an Associate in Science and Arts, or an occupational program leading to a Certificate of Achievement, an Associate in Applied Science or an Associate Degree in Nursing?
- Make an appointment with your counselor or advisor to review your options.

**Review specific degree requirements.**

- Understand what is required for your degree or certificate of choice.
- Review English and Math competency, Group 1 courses, degree electives, pre-requisite courses, grade point average and credit requirements.

**Choose your Group 1 courses.**

- Follow the Guidelines for Group 1 courses in Communications, Humanities, Science/Mathematics and Social Science based on your degree. Choose your Group 1 courses from the list on pages 62-63.
- Check the Schedule of Classes each semester to see which Group 1 courses are offered.
- If you’re planning on transferring to a public university in Michigan, inquire about the MACRAO stamp. See a counselor or advisor for more details. When MACRAO requirements are met, contact the Records & Registration Office.

**Select your degree electives.**

- Choose your major area courses and degree electives to meet your degree requirements.
- Make certain to plan for pre-requisites for major area courses. Be sure to review the transfer guides available in the counseling office or online at [www.nmc.edu/counseling](http://www.nmc.edu/counseling) for your four-year institution of choice to ensure transferability of courses.

**Register early!**

- Register early to get the classes you want. Some courses are only offered one semester every year or two and many courses fill up the first day of registration.
- Register in the Records and Registration on the first floor of the Tanis Building or online at [www.nmc.edu/webregistration](http://www.nmc.edu/webregistration)
- Meet with your advisor as soon as schedules are available. First semester students have a hold on their registration until they meet with a counselor or advisor to discuss educational goals and class selections.

**Apply for graduation.**

- Apply for graduation at least one semester before you anticipate completing the requirements for your degree or certificate program.
- Complete an “Application for Associate Degree” or an “Application for Certificate” available in the Records and Registration Office, main floor of the Tanis Building.
- Remember to order your cap and gown from the NMC Bookstore, during February or March, if you plan on participating in the commencement ceremony in May.

**Be prepared to transfer.**

- Many NMC students transfer to a four-year institution. You can complete your degree in Traverse City through NMC’s partners at the University Center, or transfer to another campus. See the Transfer Checklist on page 65.
General Education

Philosophy
General Education at Northwestern Michigan College promotes the acquisition of knowledge, skills and attitudes needed to function effectively in a changing world. This fosters intellectual curiosity, essential to lifelong learning.

Outcomes
To ensure students experience the benefits of our philosophy of general education, the faculty of NMC commits to instilling these practices throughout the curriculum.

COMMUNICATION: Students will practice effective communication with an awareness of audience and sense of purpose.

CRITICAL THINKING: Students will analyze their own thinking and the thinking of others in order to effectively identify and resolve issues.

Assessment
General Education outcomes are measured in several ways:

• Each year faculty members in designated courses submit selected student work to the office of Research and Effectiveness. Faculty teams assess the level of achievement represented by the student work.
• Every other year, a sample of students participate in a national standardized test to measure critical thinking skills.
• Graduates are surveyed annually and are asked to provide their perceptions of achieving the outcomes.

The Curriculum Committee is charged with using the results of assessment to make curricular improvements.

Degrees & Certificates
NMC students may select from several educational options. Associate degrees and certificates are awarded to those students who complete a prescribed set of courses in specific areas of study. Many programs, especially in occupational areas, also lead to additional career licenses or certifications. Maritime programs require four years of full-time study, including summer sessions and result in a bachelor’s degree with Ferris State University. Associate degree programs generally take two years of full-time study to complete. Certificate programs range from 16 to 48 credits.

NMC offers the following degree and certificate options:

• Certificate of Achievement Programs
• Associate in Applied Science (AAS)
• Associate Degree in Nursing (ADN)
• Associate in General Studies (AGS)
• Associate in Science and Arts (ASA)

Cultural Perspectives and Diversity
In order for NMC graduates to engage as educated and informed citizens of a diverse society, students pursuing the ASA and AGS degrees are required to take one Cultural Perspectives and Diversity (CPD) course. These courses are listed on page 63.

Certificate Requirements
Certificate Programs typically include specialty courses and may include some core education requirements. In most cases, they are designed for concentrated proficiency in specialized areas. In some cases, certificates are designed for students who are seeking to complete their core general education requirements for their AAS or ASA degrees. Certificates may range from 16 to 63 credit hours as established by individual program areas and/or the Curriculum Committee. Many certificate courses may apply toward an associate degree.

Certificate Program requirements include:

1. A specified group of credit hours in an area of specialization, as determined by the appropriate NMC academic area. These three levels are possible:
   • Level I: A minimum of 16 credits in a specialization area;
   • Level II: A minimum of 32 credits in a specialization area;
   • Level III: A minimum of 48 credits in a specialization area.

2. A minimum cumulative grade point average of 2.0. Higher GPA standards may be required for specific courses within individual academic areas.

3. Level I certificate programs require that a minimum of 12 credit hours be completed at NMC (this may be waived in extenuating circumstances; contact the registrar). Level II and III certificate programs require that a minimum of 20 credit hours be completed at NMC (this may be waived in extenuating circumstances; contact the registrar).

4. Competency testing by the responsible academic area if the course work was not completed at NMC.

*Competency credit: Students with competency in a specific area should consult with their program coordinator for possible testing and/or credit.

Certificate programs are listed in the Occupational Specialty Programs section of this catalog.

Group 1 & 2 Courses
Group 1 General Education courses are designed to enhance skills and knowledge for students to succeed in academic, career and life goals. Students pursuing a two-year degree will need to fulfill specific general education requirements by selecting courses from Group 1 based on the degree requirements listed on the following pages. The Group 1 courses are listed on pages 62-63 of this catalog.

Group 2 courses are all remaining 100-level courses or above which may fulfill occupational specialty program requirements, major area requirements, and elective requirements for degree and certificate programs.
The Associate in Science and Arts degree is generally pursued by students who are planning to transfer to a four-year college or university to complete a baccalaureate degree. Students who are deciding on a major area and want to explore the curriculum also frequently pursue the ASA degree.

### Communications 6-8 credits

ENG 11/111 or ENG 111 English Composition and ENG 112 English Composition.

### Humanities 8 credits

8 credits from at least 2 departments in **Group 1** Humanities courses.

### Science/Mathematics 8 credits

8 credits from at least 2 departments in **Group 1** Science/Math courses. One must be a Science lecture/lab course.

### Social Science 8 credits

8 credits from at least 2 departments in **Group 1** Social Science courses.

**Total Degree Credits: Minimum of 64**

**MATH AND READING COMPETENCY**

* Math Competency may be fulfilled in one of two ways:
  - COMPASS placement into MTH 121 or higher, or
  - Successful completion of MTH 111 or higher with a grade of 2.0 or better.

** Reading Competency:
  - Guide available from academic advisors.

**NOTES**

- A maximum of two physical education credits, two professional development seminar credits, and four Academic Service Learning Internship credits may be used toward a degree.
- Courses with numbers below 100 level do not count toward graduation, even though they may be prerequisites for other courses needed to complete degree or certificate requirements. Some courses may require prerequisites which may add to the total number of credits taken. Review course prerequisites carefully.
- To count toward graduation, a course must be completed with a grade of 1.0 or higher. See page 44 for Applying for Graduation.

**OTHER REQUIREMENTS**

- Complete at least 64 credit hours with a 2.0 or higher cumulative grade point average.
- Complete a minimum of 24 of the 64 credits through NMC classes.

A combination of 34 credits from **Group 1 or Group 2**.

Cultural Perspectives and Diversity course as listed on page 63.

Math Competency required.*

Reading Competency required.**

A list of courses in **Group 1 and 2** begins on page 62.
**Associate in General Studies Degree (AGS)**

The Associate in General Studies Degree is designed for students interested in obtaining a degree that can be customized based on varying areas of interest.

**Note:** This degree is not designed to meet the needs of the transfer student. Consult a counselor to discuss your educational goals and determine if this degree is right for you.

**Communications** 6-8 credits

ENG 11/111 or ENG 111 English Composition and either BUS 231, ENG 112 or ENG 220.

**Humanities** 3 credits

3 credits of a Group 1 Humanities course.

**Science/Mathematics** 4 credits

4 credits of a Group 1 Science/Math lecture/lab course.

**Social Science** 3 credits

3 credits of a Group 1 Social Science course.

**Electives**

46-48 semester credits chosen from any credit course in the college curriculum.

Cultural Perspectives and Diversity course as listed on page 63.

Math Competency required.*

Reading Competency required.**

**A list of courses in Group 1 and 2 begins on page 62.**

**MATH AND READING COMPETENCY**

* Math Competency may be fulfilled in one of two ways:
  - COMPASS placement into MTH 111 or higher, or
  - Successful completion of MTH 23 with a grade of 2.0 or better.

** Reading Competency:
  Guide available from academic advisors.

**NOTES**

* A maximum of two physical education credits, two professional development seminar credits, and four Academic Service Learning Internship credits may be used toward a degree.

* Courses with numbers below 100 level do not count toward graduation, even though they may be necessary to prepare for other courses needed to complete degree or certificate requirements. Some courses may require prerequisites which may add to the total number of credits taken. Review course prerequisites carefully.

* To count toward graduation, a course must be completed with a grade of 1.0 or higher. See page 44 for Applying for Graduation.
Associate in Applied Science Degree (AAS)

The Associate in Applied Science degree is generally pursued by those students who plan to enter the workforce following graduation from NMC. A career specialty emphasis is the dominant characteristic of the Applied Science Degree. View the list of specialty programs on pages 70-98. Although some students pursuing the AAS degree may transfer to a four-year college or university to pursue a baccalaureate degree, many AAS courses are not granted transfer equivalency credit at Michigan universities. Students considering the AAS degree who may wish to transfer should see an advisor.

**Communications** 6-8 credits

ENG 11/111 or ENG 111 English Composition and either ENG 220, BUS 231, or ENG 112. (Program of Study may specify.)

**Humanities** 3 credits

3 credits of a Group 1 Humanities course. (Program of Study may specify.)

**Science/Mathematics** 4 credits

4 credits of a Group 1 Science/Math lecture/lab course. (Program of Study may specify.)

**Social Science** 3 credits

3 credits of a Group 1 Social Science course. (Program of Study may specify.)

**Total Degree Credits: Minimum of 64**

**MATH AND READING COMPETENCY**

* Math Competency may be fulfilled in one of two ways:
  - COMPASS placement into MTH 111 or higher, or
  - Successful completion of MTH 23 with a grade of 2.0 or better.

** Reading Competency:
  Guide available from academic advisors.

**OTHER REQUIREMENTS**

- Complete at least 64 credit hours with a 2.0 or higher cumulative grade point average.
- Complete a minimum of 24 of the 64 credits through NMC classes.

**NOTES**

- A maximum of two physical education credits, two professional development seminar credits, and four Academic Service Learning Internship credits may be used toward a degree.
- Courses with numbers below 100 level do not count toward graduation, even though they may be necessary to prepare for other courses needed to complete degree or certificate requirements. Some courses may require prerequisites which may add to the total number of credits taken. Review course prerequisites carefully.
- To count toward graduation, a course must be completed with a grade of 1.0 or higher. See page 44 for Applying for Graduation.
Associate Degree in Nursing (ADN)

The Associate Degree in Nursing program is generally pursued by those students who plan to enter the nursing workforce following graduation. After successful completion of this program, graduates take the State of Michigan licensure examination. With passing scores, graduates are awarded licensure as a Registered Nurse.

A nursing career specialty emphasis is the dominant characteristic of the program. Some students pursuing the ADN degree may decide to transfer to a four-year college or university to pursue a baccalaureate degree. Students considering the ADN degree who may wish to transfer should see an advisor.

**Communications** 6-8 credits

ENG 11/111 or ENG 111 English Composition and ENG 112 English Composition.

**Humanities** 3 credits

PHL 202 Contemporary Ethical Dilemmas.

**Science/Mathematics** 13 credits


**Social Science** 3 credits

PSY 101 Introduction to Psychology.

**Total Degree Credits: Minimum of 72**

**MATH AND READING COMPETENCY**

* Math Competency may be fulfilled in one of two ways:
  • COMPASS placement into MTH 121 or higher, or
  • Successful completion of MTH 111 with a grade of 2.0 or better

** Reading Competency:
  Guide available from academic advisors.

*** Computer Competency:
  CIT 122A Computer and Internet Basics, 1 credit

**OTHER REQUIREMENTS**

• Complete a minimum of 72 credit hours with a cumulative grade point average of 2.0. Complete each nursing course at 2.0 or higher.
• Complete a minimum of 24 degree credits through NMC classes.
• Be enrolled at NMC the semester of graduation. Petitions for exceptions should be in writing and directed to the Registrar.

**NOTES**

• A maximum of two physical education credits, two professional development seminar credits, and four Academic Service Learning Internship credits may be used toward a degree.
• Courses listed below 100 level do not count toward graduation, even though they may be necessary to prepare for other courses needed to complete degree or certificate requirements. Some courses may require prerequisites which may add to the total number of credits taken. Review course prerequisites carefully.
• To count toward graduation, a course must be completed with a grade of 1.0 or higher. Grades of 2.0 or higher are required for courses with the HNR prefix, CHM 101, ENG 111 and PSY 101. Grade point average of 2.5 or higher required for each of the courses in Anatomy and Physiology sequence (BIO 227, BIO 228). See page 44 for Applying for Graduation.
**Group 1 Courses**

Excess credits may be applied toward Group 2 requirements.

**Communications**

<table>
<thead>
<tr>
<th>ENGLISH DEPT.</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 English Composition</td>
<td>4</td>
</tr>
<tr>
<td>ENG 112 English Composition</td>
<td>4</td>
</tr>
</tbody>
</table>

*Note: Transfer students with Composition transfer credits totaling less than 5, choose one of the ENG Literature Dept. courses below. For Communications: Excess Literature credits may be applied to Group 1 Humanities requirements or Group 2 requirements.*

**Humanities**

<table>
<thead>
<tr>
<th>HISTORY DEPT.</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HST 101 Western Civilization to 1500 AD</td>
<td>4</td>
</tr>
<tr>
<td>HST 102 Western Civilization from 1500</td>
<td>4</td>
</tr>
<tr>
<td>HST 111 US History to 1865</td>
<td>4</td>
</tr>
<tr>
<td>HST 112 US History Since 1865</td>
<td>4</td>
</tr>
<tr>
<td>HST 211 Native American History</td>
<td>3</td>
</tr>
<tr>
<td>HST 212 African-American History</td>
<td>3</td>
</tr>
<tr>
<td>HST 213 American Women's History</td>
<td>3</td>
</tr>
<tr>
<td>HST 225 American Civil War</td>
<td>3</td>
</tr>
<tr>
<td>HST 228 The Vietnam War</td>
<td>3</td>
</tr>
<tr>
<td>HST 230 A History of Michigan</td>
<td>3</td>
</tr>
<tr>
<td>HST 235 20th Century Europe</td>
<td>3</td>
</tr>
</tbody>
</table>

**LITERATURE DEPT.**

| ENG 210 Children's Literature | 3 |
| ENG 240 Introduction to Literature | 3 |
| ENG 241 Mythology | 3 |
| ENG 242 Women in Literature | 3 |
| ENG 245 Native American Literature | 3 |
| ENG 254 Shakespeare | 3 |
| ENG 256 Wilderness & the American Imagination | 3 |
| ENG 261 British Literature | 3 |
| ENG 262 American Literature | 3 |
| ENG 263 World Literature | 3 |
| ENG 264 Detective Fiction | 3 |
| ENG 265 Science Fiction and Fantasy | 3 |
| ENG 266 Popular Culture | 3 |
| ENG 267 Film as Literature | 3 |
| ENG 271 Adolescence and Cultural Diversity | 3 |

**LANGUAGE (INTERMEDIATE LEVEL) DEPT.**

| MLF 201 Intermediate French I* | 4 |
| MLF 202 Intermediate French II* | 4 |
| MLS 221 Intermediate Spanish I* | 4 |
| MLS 222 Intermediate Spanish II* | 4 |

*Not all four-year schools will accept second year Foreign Language courses as Humanities Distribution credits.

**HUMANITIES DEPT.**

| HUM 101 Introduction to Humanities I | 3 |
| HUM 102 Introduction to Humanities II | 3 |
| HUM 111 American Experience | 4 |
| HUM 112 American Experience | 4 |
| HUM 116 World Cultures | 4 |

**ART DEPT.**

| ART 100 Art Appreciation | 3 |
| ART 111 History of Western Art I | 4 |
| ART 112 History of Western Art II | 4 |
| ART 116 World Cultures | 4 |
| ART 213 Modern Art History | 3 |
| ART 214 Women in Art | 3 |

**MUSIC DEPT.**

| MUS 110 Music Appreciation Standard Literature | 3 |
| MUS 111 Music Appreciation Jazz | 3 |

**PHILOSOPHY/RELIGION DEPT.**

| PHL 101 Introduction to Philosophy | 3 |
| PHL 105 Critical Thinking | 3 |
| PHL 121 Western Religions | 4 |
| PHL 122 Eastern Religions | 4 |
| PHL 181 Old Testament | 4 |
| PHL 182 New Testament | 4 |
| PHL 201 Ethics | 3 |
| PHL 202 Contemporary Ethical Dilemmas | 3 |
| PHL 222 The World of Jesus | 4 |
| PHL 223 Jesus and Early Christianity | 4 |

**Science/Math**

**ASTRONOMY DEPT.**

| AST 109-AST 109L Planetary Astronomy | 4 |
| AST 119-AST 119L Astronomy | 4 |

**BIOLOGY DEPT.**

| BIO 100 - BIO 100L Food and Nutrition Biology | 4 |
| BIO 105 - BIO 105L Living in the Environment | 4 |
| BIO 106 - BIO 106L Human Biology | 4 |
| BIO 107 - BIO 107L Field Biology | 4 |
| BIO 108 - BIO 108L Plant Biology | 4 |
| BIO 109 - BIO 109L Principles of Life Science | 4 |
| BIO 115 - BIO 115L Cell, Plant and Ecosystem Biology | 4 |
| BIO 116 - BIO 116L Cell and Animal Biology | 4 |
| BIO 208 - BIO 208L Microbiology | 4 |
| BIO 215 Genetics (no lab) | 3 |
| BIO 216 Genetics Lab | 1 |
| BIO 227 - BIO 227L Human Anatomy and Physiology I | 5 |
| BIO 228 - BIO 228L Human Anatomy and Physiology II | 5 |
| BIO 250 - BIO 250L Natural History of Vertebrates | 4 |
| BIO 260 - BIO 260L General Ecology | 5 |
| BIO 268 Biochemistry (no lab) | 3 |
| BIO 270A Ecological Field Studies (lab only) | 2 |
| BIO 270B Campus Botany (lab only) | 2 |

**CHEMISTRY DEPT.**

| CHM 101 - CHM 101L Introductory Chemistry | 4 |
| CHM 150 - CHM 150L - 150R General Chemistry I | 5 |
| CHM 151 - CHM 151L - 151R General Chemistry II | 5 |
| CHM 250 - CHM 250L Organic Chemistry I | 5 |
| CHM 251 - CHM 251L Organic Chemistry II | 5 |

**ENVIRONMENTAL SCIENCE DEPT.**

<p>| ENV 103 - ENV 103L Earth Science | 4 |
| ENV 104 - ENV 104L Life of the Past | 4 |
| ENV 111 - ENV 111L Physical Geology | 4 |
| ENV 112 - ENV 112L Historical Geology | 4 |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>SOC 211</td>
<td>Marriage and the Family</td>
<td>3</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Gender and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 231</td>
<td>Deviance and Criminal Behavior</td>
<td>3</td>
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</table>

### Cultural Perspectives & Diversity (CPD) Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENG 210</td>
<td>Children's Literature</td>
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</tr>
<tr>
<td>ENG 241</td>
<td>Mythology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 242</td>
<td>Women in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 245</td>
<td>Native American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 263</td>
<td>World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 271</td>
<td>Adolescence and Cultural Diversity</td>
<td>3</td>
</tr>
<tr>
<td>MLF 101</td>
<td>Elementary French I</td>
<td>4</td>
</tr>
<tr>
<td>MLF 102</td>
<td>Elementary French II</td>
<td>4</td>
</tr>
<tr>
<td>MLF 201</td>
<td>Intermediate French I</td>
<td>4</td>
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<tr>
<td>MLF 202</td>
<td>Intermediate French II</td>
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<tr>
<td>MLS 121</td>
<td>Elementary Spanish I</td>
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<tr>
<td>MLS 122</td>
<td>Elementary Spanish II</td>
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<td>MLS 221</td>
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<td>MLS 222</td>
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### HUMANITIES AREA

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<th>Course Code</th>
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<tbody>
<tr>
<td>ART 111</td>
<td>History of Western Art I</td>
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<td>ART 112</td>
<td>History of Western Art II</td>
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</tr>
<tr>
<td>ART 116</td>
<td>World Cultures</td>
<td>4</td>
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<tr>
<td>ART 214</td>
<td>Women in Art</td>
<td>3</td>
</tr>
<tr>
<td>HST 101</td>
<td>Western Civilization to 1500</td>
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<td>HST 102</td>
<td>Western Civilization from 1500</td>
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<td>US History to 1865</td>
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<td>HST 112</td>
<td>US History Since 1865</td>
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<td>HST 211</td>
<td>Native American History</td>
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<td>African American History</td>
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<td>HST 213</td>
<td>American Women's History</td>
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<tr>
<td>HUM 101</td>
<td>Introduction to Humanities I</td>
<td>3</td>
</tr>
<tr>
<td>HUM 102</td>
<td>Introduction to Humanities II</td>
<td>3</td>
</tr>
<tr>
<td>HUM 116</td>
<td>World Cultures</td>
<td>4</td>
</tr>
<tr>
<td>PHL 101</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHL 105</td>
<td>Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>PHL 121</td>
<td>Western Religions</td>
<td>4</td>
</tr>
<tr>
<td>PHL 122</td>
<td>Eastern Religions</td>
<td>4</td>
</tr>
<tr>
<td>PHL 201</td>
<td>Ethics</td>
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</tr>
<tr>
<td>PHL 202</td>
<td>Contemporary Ethical Dilemmas</td>
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### SOCIAL SCIENCE AREA

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<tbody>
<tr>
<td>GEO 101</td>
<td>Introduction to Geography</td>
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<tr>
<td>GEO 109</td>
<td>World Regional Geography</td>
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</tr>
<tr>
<td>PLS 101</td>
<td>Introduction to American Politics</td>
<td>3</td>
</tr>
<tr>
<td>PLS 132</td>
<td>Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>PLS 211</td>
<td>International Relations</td>
<td>4</td>
</tr>
<tr>
<td>SOC 101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 113</td>
<td>Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 220</td>
<td>Gender and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 231</td>
<td>Deviance and Criminal Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>

### Group 2 Courses

All 100-level or higher courses not listed in the Group 1 section are Group 2 courses.
Linked Courses

This approach offers students an opportunity to “link” the content of a course such as the reading and writing of composition to the content of classes in areas such as business and science. Sections are generally small to allow for individual attention, and when the same students take the same sections of a composition and business class, for example, they become a “learning community” and can write composition papers about business topics, enhancing the learning in both classes. For more information, contact the Business, Communications or Humanities academic areas.

Work-Based Learning

NMC provides various work-based learning options.

Internships

Internship opportunities are offered for students who wish to integrate academics with professional work experience. Students can earn college credit while working in positions related to their academic and career goals. Contact the Office Manager in the academic area where you would like to pursue your internship.

Service Learning

(For credit or non-credit)

A Service Learning Internship is a method of earning college credit in a supervised field experience. It is an opportunity for students who want to explore career or interest areas, apply classroom theory to a real situation, or gain practical experience for resume building. It is also an opportunity to earn credits while giving some of your talents to the community as a volunteer. Service Learning Internships are arranged between the student, supervising faculty, field supervisor, and service learning coordinator in any academic area. Up to four internship elective credits can be applied to graduation. Students may also do non-credit volunteering using the same process. For more information, (231) 995-1294.

MACRAO Transfer Agreement

The Michigan Association of College Registrars and Admissions Officers (MACRAO) has adopted an agreement to help students transfer more easily from Michigan community colleges to participating four-year colleges and universities. The agreement provides for transferability of up to 30 semester credits to meet many (in some cases all) of the General Education Requirements at participating Michigan institutions. Some participating institutions include provisos with limitations and exceptions, which may be based on the student’s program of study. Students should check with NMC counselors and admissions personnel at the transfer institution to learn about an institution’s level of participation. Also, go to www.macrao.org for more information.

The following courses satisfy the MACRAO agreement requirements:

1. English Composition: MACRAO specifies minimum of 6 credit hours, which can be fulfilled through completion of NMC’s ENG 111 and 112 English Composition.

2. Humanities: 8 credits from Group 1. Courses must be taken in more than one department.

3. Natural Science: 8 credits from Group 1 Natural Sciences (with at least one lecture/laboratory course). Mathematics may be included in this category. Courses must be taken in more than one department.

4. Social Sciences: 8 credits from Group 1 Courses must be taken in more than one department.

All courses which meet MACRAO requirements are listed as “Group 1 Courses” on pages 62-63 of this catalog.

When students have completed the MACRAO requirements, they should notify the NMC Records Office so their transcripts will be noted “MACRAO AGREEMENT SATISFIED.” Completion of the ASA degree will fulfill the MACRAO requirements. However, it is not necessary to complete the entire associate degree to satisfy the MACRAO agreement or to transfer to four-year schools.

If you’ve received the MACRAO stamp from another Michigan community college, NMC will honor this agreement. However, courses transferred in below a 2.0 will not count toward the total credits required for the degree.
Be Prepared to Transfer

About half of NMC students enroll with the intention of transferring to a four-year school to complete their degree. This checklist will help you transfer smoothly. If you want to complete your degree in Traverse City, you can choose from more than 50 programs offered through NMC’s University Center partners. More information is on page 22-23.

Meet with an NMC Counselor or Academic Advisor

- Discuss your transfer plan including associate degree requirements, general education, and transferability of courses.
- Right from the beginning, be sure you take NMC courses that will transfer.

Evaluate Colleges and Decide Early!

- Investigate entrance and degree requirements for four-year institutions.
- Consider the options available for colleges including setting and character, cost, size of school, teacher/student ratio, educational opportunities, program options and accreditation status.
- Visit the Counseling Office to review four-year institution transfer guides and resource materials, or visit www.nmc.edu/counseling. Ask about the MACRAO Transfer Agreement.
- Visit with representatives of four-year transfer institutions visiting NMC.
- Investigate the web page of your transfer institution.

Seek Advising

- Contact the transfer school admissions office and speak with an advisor specializing in transfer.
- Note the name of the advisor you spoke with - remember to keep accurate records of your discussions (who, what, when) and make copies of everything you send.
- Review application procedures and time lines for admission and financial aid.

Apply Early!

- Complete your applications for admission and financial aid.
- Determine deadlines for financial aid, including scholarships and transfer funding, as well as major and housing applications.
- Send necessary documents including transcripts from NMC and all other colleges attended, high school transcripts, ACT scores and other scores as required. (Keep copies for your file.)
- Send a final copy of your transcripts from NMC to the school after completion of your courses at NMC.
- Verify that your transfer school received a complete file.

Visit Transfer School

- Call the Admissions Office and schedule a visit. Request a meeting with a student and/or advisor in your major area and a campus tour.
- Do this as early in your academic career at NMC as possible.
Transfer Options

Some students select a course of study that requires a four-year degree of which two years may be completed at NMC through completion of the Associate in Science and Arts degree (ASA). See page 58 for ASA degree requirements. Visit www.nmc.edu/counseling for additional information.

Accounting NMC Code 733
The Accounting Program contains a blend of specialized classes and liberal arts studies to prepare students for today’s competitive, complex, and changing business world. Students who plan to pursue a bachelor’s degree should refer to NMC’s degree requirements for the Associate in Science and Arts (ASA) degree. Also, transfer students should familiarize themselves with the requirements of the school where they plan to complete their bachelor’s degree. Students interested in a bachelor’s degree may also elect to stay in Traverse City and transfer to the University Center.

Art/Fine Arts NMC Code 711
The Fine Arts courses are designed for students who plan to transfer to a four-year college or university for a Bachelor’s or Master’s in Fine Arts (BFA or MFA). Careers for students specializing in Fine Arts with a bachelor’s or master’s degree include education, museum/gallery management, or self-employment as an artist.

Students specializing in Fine Arts while completing an Associate of Science and Arts degree at NMC will pursue a program of study which includes Drawing, Design (2-D and 3-D Design), Life Drawing, and Art History and may be able to specialize in one or more of the following areas: painting, watercolor painting, pottery, photography, and computer graphics. Students are urged to discuss course selection early with transfer schools since portfolio requirements for admission vary. See page 58 for Associate in Science and Art degree requirements.

Astronomy NMC Code 717
NMC offers courses that focus on Observational, Planetary, and Stellar Astronomy. Students planning on transferring to pursue a bachelor’s degree in this area should also take course work in Mathematics and Physics. Astronomy courses are listed on page 104.

Biology NMC Code 702
Individuals planning to pursue a four-year degree in Biology should select from courses beginning on page 107. In addition, students should select courses in Mathematics, Chemistry and Physics.

Business Administration NMC Code 734
Students planning to pursue a four-year degree in Business Administration should follow NMC’s degree requirements for the ASA or AAS degree (depending on the transfer institution) AND familiarize themselves with the requirements of the school of choice for their bachelor’s degree.

Chemistry NMC Code 727
Students planning on transferring to pursue a bachelor’s degree in Chemistry will pursue course work which includes credits selected from those beginning on page 113. In addition to taking Chemistry courses, students with an emphasis in Chemistry gain a solid background in Math and Physics.

Child Development NMC Code 722
Child Development courses, such as Early Childhood Education and Guiding Young Children are designed to prepare students to work with children and their families. Students may be seeking a career as the director of a child care program, a paraprofessional/teacher’s aide in the school system, a lead teacher in a daycare/preschool setting, a daycare teacher’s aide, or preparing for a Bachelor’s degree in Child Development. CD 101, CD 202, CD 203, CD 204, CD 206, CD 220, PSY 212 and SOC 211 are required classes to meet the Child Development concentration. If you are pursuing elementary education, please consult the transfer guide from the transferring school, or see an advisor.

Communications NMC Code 704
Communications as a separate field of study may include a variety of careers and specialties, ranging from media and public relations to technical writing. It is also an important component of other programs of study or careers, including computer science, human services, health occupations and art therapy.

Criminal Justice NMC Code 706
NMC now offers a Criminal Justice program in collaboration with other colleges through the Michigan Community College Virtual Learning Collaborative. This program may involve agreements that lead to a four-year degree from another college/university. Visit www.nmc.edu/flo for current information on the status of this program, the courses, program requirements, or articulation agreements.

Economics NMC Code 712
The most basic and enduring strength of economics is that it provides a logical, ordered way of looking at various problems and issues. It draws upon geography, history, philosophy and mathematics to address topics ranging from how an individual, household or firm, can make sound decisions to social issues, such as how to confront unemployment, inflation or environmental decay. As a result, economics is widely recognized as a solid background for many jobs and professions. Students interested in this field of study will select courses from among those on page 122.

Education NMC Code 708
NMC offers an introductory course to teaching as a career and prepares student for further study in education at transfer institutions. Transfer requirements vary greatly. Go to www.nmc.edu/counseling to view NMC transfer guides.
Engineering  
NMC Code 709
The NMC engineering curriculum parallels engineering programs offered during the first two years at other colleges and universities. Traditionally, these first two years emphasize the tools and theories that provide background for all engineering fields. Completion of the following program requirements will prepare most students for transfer to a four-year engineering program.

Northwestern Michigan College has joined with Michigan Technological University, Kettering University, and Lake Superior State University to offer a two plus two program whereby a student attends NMC for the first two years and then completes the final two years of an engineering degree at one of the participating four-year institutions. A student admitted into the two plus two program at NMC has the added advantage of a guaranteed place in the major of their choice at one of the four year institutions.

ENGINEERING REQUIREMENTS  
Credits: 82-84
General Education Credits as required for ASA........ 30-32
Chemistry*: CHM 150...................................... 5
Mathematics**: MTH 141, 142, 241, and 251 .......... 18
Physics: PHY 221 and 222.............................. 10
Engineering: EGR 101, 113, 131, 201, 202, 203 ...... 19

Note: Use this list of courses as a guide only. It is not applicable for all engineering specialties or all schools of engineering. It is important to follow specific requirements for each engineering program available in transfer guides at www.nmc.edu/counseling or in the Counseling Center. Students who plan to earn an associate degree at NMC before transferring should consult a counselor for assistance in modifying this schedule.

Engineering Certificate  
NMC Code 079
ENGINEERING REQUIREMENTS  
Credits: 52
Chemistry: CHM 150 ...................................... 5
Mathematics: MTH 141, 142, 241, and 251 .......... 18
Physics: PHY 221 and 222.............................. 10
Engineering: EGR 101, 113, 131, 201, 202, 203 ...... 19

English  
NMC Code 710
Students wishing to concentrate their studies in the field of English may be preparing for careers in writing or teaching. English is also crucial to many other careers since writing and reading are high-demand skills in most professions. Students planning to transfer to complete a bachelor’s degree in English should pursue an Associate in Science and Arts degree program that includes credits selected from among the courses beginning on page 124.

Environmental Science  
NMC Code 717
The study of Environmental Science includes courses in Geology, Biology, Meteorology, Chemistry, Soils, Oceanography and Watershed Science. Students planning on transferring to pursue a bachelor’s degree in any of these areas will choose a program of study which includes courses selected from those beginning on page 127. Students are encouraged to contact a faculty member in the Environmental Science department to learn more about employment opportunities and for assistance with class scheduling.

Gen. Liberal Arts/Science  
NMC Code 712
Students interested in transferring to pursue a bachelor’s degree should enroll in the General Liberal Arts/Science area of study if they are undecided. Students planning on pursuing this area of study should consult the course descriptions beginning on page 102.

Geology  
NMC Code 717
Students interested in pursuing a career as a Geologist will take Environmental Studies courses, including Physical and Historical Geology. In addition, students will complete course work in Chemistry, Physics, and Mathematics.

History  
NMC Code 730
As a separate field of study within the humanities, history will prepare students to enter secondary education, journalism, the archival and museum professions, and a variety of public history positions upon completion of at least a bachelor’s degree. It will also prepare students for entering professional and graduate schools in law and in fields that will enable graduates to teach and do research in institutions of higher learning.

Mathematics  
NMC Code 715
Students planning on transferring to complete a bachelor’s degree in Mathematics will pursue course work that includes MTH 141, MTH 142, MTH 241, and MTH 251. Other suggested courses include PHY 221, PHY 222 & MTH 116.
Modern Languages

Modern Languages as a field of study at NMC includes specialization in American Sign Language, French, and Spanish. In a world of international telecommunications and interdependent economies, language specialization is an important component for those planning careers in business, communication, or teaching.

Music

Professional opportunities for a skilled musician are endless in that music, in some way, touches our lives every day in many ways.

The study of music offers a vast variety of career opportunities including: Music Education- Early Childhood Music, School Music Educator, Music Supervisor, Music Professor, University Music School Administrator, Studio Teacher; Instrumental Music- Armed Forces Musician, Orchestra Musician, Concert Soloist, Rock or Jazz Band Musician, Music Clinician; Vocal Performance- Dance Band or Night Club Vocalist, Opera Chorus Member, Concert Soloist, Opera Soloist; Conducting- Choir, Orchestra, or Opera Conductor; Composing- School Music Composer, Art Music Composer, Commercial Jingle Composer, TV Show Composer, Film Score Composer; Music for Worship- Organist, Choir Director, Cantor; Music Business- Music Dealer Sales Person, Music Dealer Manager, Marketing or Advertising Specialist, Music Distributor; Instrument Making and Repair- Instrument Maker, Piano Tuner, Repair Technician; Music Publishing- Music Editor, Notesetter, Publishing Sales Representative, Copyright or Licensing Administrator; Music Communications- Publisher or Editor of Music Books or Periodicals, Music Reporter, Public Relations Specialist; The Recording Industry- Producer, Engineer, Mixer, Artist and Repertoire Person, Studio Arranger, Music Copyist; The TV and Radio Industry- Commercials Musician, Program Director, Post Production Scoring or Scoring Person, Music Advisor or Researcher.

The first two years of our music curriculum is common to all the professions listed above and provides a solid foundation for continued study at the transfer institution of choice and in some cases, such as audio technology courses, to immediately enter the profession.

NMC offers applied (private) lessons for all major instrument types and voice types. Auditions for placement are held during the summer or between semesters. Contact the academic area office manager or the department chair to arrange for a date and time.

Music students at NMC have the unique opportunity to perform as often as twice each semester in a student recital in the Milliken Auditorium. These Wednesday recitals are open to the public and provide students the opportunity to practice their “live” performance skills.

Many students who participated in their high school programs may wish to continue doing so at the collegiate level. Please turn to page 149 in this catalog to learn about ensemble courses at NMC.

Colleges and universities and music trade schools provide widely varied coursework leading to a bachelor’s degree and beyond. NMC can tailor the choice of music courses to best accommodate your needs. This is done through the Music Advisor.

Standard coursework for most of the professional positions listed above would include: MUS 101, 102, 103, and 104 - Music Theory and Sight Singing and Ear Training; MUS 106, 107, 206, 207 - Group Piano Instruction; Independent Study in Music Theory both semesters of your sophomore year; MUS ensembles*; and MUS Applied Instruction*.

Those studying Audio Technology would also enroll in our four-semester sequence of courses: MUS 130A, Ensembles-Sound and Recording Techniques; MUS 130B, Ensembles-Signal Processing; MUS 230A, Ensembles-Midi Processing, and MUS 230B, Ensembles-Recording Practicum.

*Placement in an ensemble/applied music instruction (private lessons) is based on audition and faculty recommendation. Students requiring remedial study to prepare for collegiate level applied instruction will be placed in 90 level applied instructions to attain the required skills. Students transferring music credits can expect to be tested for placement in the areas of Theory, Sight-Singing/Ear Training and Piano.

Performing Arts

DANCE

Students wishing to pursue an interest in the field of dance should take the courses in dance on page 120 and consult with an advisor and the dance faculty member before their first semester at NMC.

THEATER

Students interested in the field of theater at NMC will study acting and play production. Course work in this area will also include credits chosen from the public speaking, communications, and literature areas. Students planning to transfer to complete a bachelor’s degree in theater should pursue an Associate in Science and Arts degree program that includes credits from the courses on page 159.

Philosophy and Religion

Careers in the fields of philosophy and religion include college teaching and research, secondary education, as well as positions as ministers, priests, or rabbis. Other potential careers for those who specialize in religion are pastoral administration, religious education, church office management, and church mission work. The fields of clinical medicine and medical research as well as commercial business fields like accounting are employing ethicists, a specialized branch of philosophy.

Students seeking to transfer to a four-year college or university to major in philosophy or religion may complete basic course work while at NMC. That course work will include credits selected from those courses on page 154-155.
Physical Education
Physical Education activity courses are offered to students wishing to expand personal interests, health and fitness, recreation, and sports skills. Most Physical Education courses provide a starting point for students transferring to four-year institutions and who seek a Physical Education major or minor.

Physics
Students planning on transferring to complete a bachelor's degree in Physics will pursue course work which includes credits selected from those beginning on page 155. These students should also include Calculus I, II, & III, Differential Equations, and General Chemistry I & II.

Plant Science, Applied
FRUIT PRODUCTION NMC Code 581
LANDSCAPE & NURSERY NMC Code 582
TURFGRASS MANAGEMENT NMC Code 583

Students interested in pursuing a four-year degree in Plant Science should follow a general education curriculum with courses in science, including Chemistry and Biology. In addition, students have the opportunity to take technical courses in soils, plants and plant diseases from Michigan State University at the NMC University Center. See page 95 for course requirements.

Political Science
Political science as a field includes the study of American politics, comparative politics, international relations, political theory, and political economy. Undergraduate courses in political science are an important component of any liberal arts education as students gain important knowledge concerning the political structures that shape our world. Courses in political science are especially useful for students pursing careers or advanced degrees in public policy, law, business, economics, social work, education, history, and, of course, politics. Bachelors and graduate degrees in political science and public policy offer career opportunities in a variety of areas such as education, policy research, law, and international business. Students interested in courses in political science are referred to page 156.

Pre-Law
Pre-law is a major often selected by students interested in pursuing careers in government or law.

Pre-Med, Pre-Dental, Pre-Vet
The medical sciences major is designed for pre-professional students interested in graduate training in the medical field.

Psychology
Students interested in the following fields of psychology, such as counseling, social work, research or teaching, may select from courses such as Introduction to Psychology, Introduction to Social Psychology, Developmental Psychology, Exceptional Child, Human Sexuality, Abnormal Psychology Psychology of Personality and Psychology of Adjustment.

Science & Arts Certificate NMC Code 071
Students are able to use the general education requirements as the basis of an ASA or as a one-year transfer program since it fulfills the state's MACRAO agreement.

COURSE REQUIREMENTS Credits: 32
ENG 111 and ENG 112 ........................................ 8
Group 1 Courses from two different
Social Science Disciplines ................................ 8
Group 1 Courses from two different
Humanities Disciplines ...................................... 8
Group 1 Courses from two different
Science/Math Disciplines .................................. 8
Math competency of ASA degree......................... (4)
• COMPASS placement into MTH 121 or higher, or
• Successful completion of MTH 111 or higher with a 2.0

Social Work
The social work courses are designed to transfer to other four-year schools with certified social work programs. It is specifically designed to fit into the Ferris State University Social Work Program at the University Center in Traverse City and on the Ferris main campus in Big Rapids. When choosing this program of study, it is highly recommended to meet with the social work coordinator; call (231) 995-1294. This will assist you in building a program that will transfer smoothly. Social work is a rapidly growing field that employs people in many different areas of work and requires very specific training and course work. Students interested in this field of study will select courses from among those beginning on page 159.

Sociology
Sociology is the study of the social context of human behavior. It includes the study of social change; socialization of group attributes such as social class, race, gender and age; and the workings of our social institutions. Courses in sociology are an important component of any liberal arts education, especially involving critical thinking and an understanding of diversity. It is also a major study for those interested in a wide variety of careers including teaching, social work, public policy, criminal justice, law, non-profit organizations, and social research. See page 158 for course listings.

Visual Communications
Students completing the Visual Communications program at NMC earn an Associate in Applied Science degree. After completion of the AAS degree, students can take a third-year option in Visual Communications and earn an AAS in Creative Management in Art Direction that will aid in local employment while exposing the student to marketing and business-related classes. Students interested in transferring to a four-year art and design college or university may pursue the Associate in Science and Arts degree. See pages 58 and 60 for degree requirements.
Occupational Specialty Programs

Occupational Specialty degrees and certificate programs prepare students to enter the workforce through development of technical specialties and related skills appropriate to the chosen occupational area. See the following program listings for specific program requirements.

Each Occupational Specialty program has specific learning outcomes that are assessed each year. Assessment methods vary from program to program. Specific outcomes are available from the academic chair. Students who would like to know how a specific academic area meets these outcomes should contact the academic chair of that area.

Accounting

**Associate in Applied Science Degree  NMC Code 103**

This program will prepare students to begin a career in accounting. Graduates will be prepared to work as bookkeepers and entry-level accountants in accounts receivable, accounts payable, payroll, and other entry-level areas of accounting. Students considering transfer should see an advisor.

**General Education Requirements  Credits: 16-17**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications: ENG 111 and BUS 231</td>
<td>6-7</td>
</tr>
<tr>
<td>Humanities: PHL 201 or PHL 202</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics: Placement into MTH 121 or higher, or completion of MTH 111*</td>
<td>(4)</td>
</tr>
<tr>
<td>Science: Any Group 1 course with a lab</td>
<td>4</td>
</tr>
<tr>
<td>Social Sciences: ECO 201</td>
<td>3</td>
</tr>
</tbody>
</table>

* These credits may be used as directed electives.

**Occupational Specialty Requirements  47-48**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 121 Accounting Principles I</td>
<td>4</td>
</tr>
<tr>
<td>ACC 122 Accounting Principles II</td>
<td>4</td>
</tr>
<tr>
<td>ACC 221 Intermediate Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ACC 222 Intermediate Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>BUS 101 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 105 Business Math**</td>
<td>3</td>
</tr>
<tr>
<td>BUS 150 Interpersonal Relations</td>
<td>2</td>
</tr>
<tr>
<td>BUS 156 Essentials of Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>BUS 261 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>CIT 100 Computers in Business-An Intro</td>
<td>3</td>
</tr>
<tr>
<td>CIT 210 Electronic Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>CIT 216 Computerizing Accounting Systems</td>
<td>2</td>
</tr>
</tbody>
</table>

**Directed Electives (Choose any combination).  11-12**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 225 Cost/Management Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 290 Accounting Internship</td>
<td>3</td>
</tr>
<tr>
<td>BUS 262 Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition</td>
<td>4</td>
</tr>
<tr>
<td>MGT 241 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111 Intermediate Algebra***</td>
<td>4</td>
</tr>
<tr>
<td>MTH 131 Probability and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Administrative Support Specialist**

**Certificate of Achievement (Level II)  NMC Code 003**

Well-trained office professionals continue to be in demand and play an integral role in the successful operation of an organization. They work as a team with managers, professionals, and other support staff to control and manage administrative operations.

The Administrative Support Specialist Certificate builds on the Clerical Support Certificate and focuses on specific skills which area employers consider essential.

**Certificate Requirements  Credits: 39**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of all courses required for the Clerical Support Certificate (see page 77)</td>
<td>17</td>
</tr>
<tr>
<td>BUS 231 Professional Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS 290 Business Administration Internship</td>
<td>3</td>
</tr>
<tr>
<td>CIT 210 Electronic Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>CIT 212 Intro to Database Management</td>
<td>3</td>
</tr>
<tr>
<td>CIT 120A Microsoft Word Level I A</td>
<td>1</td>
</tr>
<tr>
<td>CIT 120B Microsoft Word Level I B</td>
<td>1</td>
</tr>
<tr>
<td>CIT 121A Microsoft Word Level II A</td>
<td>1</td>
</tr>
<tr>
<td>CIT 121B Microsoft Word Level II B</td>
<td>1</td>
</tr>
<tr>
<td>CIT 124A Microsoft PowerPoint Level I A</td>
<td>1</td>
</tr>
<tr>
<td>CIT 124B Microsoft PowerPoint Level I B</td>
<td>1</td>
</tr>
<tr>
<td>PHL 105 Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>BPD 133 Keyboarding Speed/Accuracy</td>
<td>1</td>
</tr>
</tbody>
</table>

**Program Requirements  64**
### Automotive - Automotive Service Technology

**Associate in Applied Science Degree**  
NMC Code 560

This program is designed for either the person with little or no prior experience or the skilled technician who needs to keep pace with current technology. Students may take the classes they need to update skills, pursue an Associate in Applied Science degree which combines automotive technician classes with courses in the liberal arts and sciences, or work toward a Master Technician Certificate which qualifies graduates to enter the workplace as entry-level state-certified technicians. Students may also choose from two specialized certificates: Under Car Specialist or Electrical and Drivability Specialist. The certificates are explained in more detail in the proceeding pages. All eight state or ASE certifications must be passed to be awarded the AAS degree or Master Technician Certificate.

Day and evening classes allow technicians at every level to develop new skills at convenient times. The program is a series of modules, each designed to teach an individual system. This flexibility allows the more experienced technician to learn a specific system while the beginning technician can combine the modules for a complete course in automotive technology.

**Foundation Requirements**

For successful completion of the AT courses, placement into ENG 111 is recommended; and completion of MTH 08 or placement into MTH 23 is recommended. For incoming students that do not meet the recommended level, remedial courses may be recommended.

**Certificate Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>16-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications: ENG 111 and ENG 112 or ENG 220</td>
<td>6-8</td>
</tr>
<tr>
<td>Humanities: Any Group 1 course</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics: Placement into MTH 111 or higher, or completion of MTH 23*</td>
<td>(4)</td>
</tr>
<tr>
<td>Science: Any Group 1 course with lab</td>
<td>4</td>
</tr>
<tr>
<td>Social Sciences: Any Group 1 course</td>
<td>3</td>
</tr>
</tbody>
</table>

*These credits do not count toward degree requirements.*

**Occupational Specialty Requirements**

<table>
<thead>
<tr>
<th>56</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT 100* Automotive Service Basics</td>
</tr>
<tr>
<td>AT 110 Automotive Brake Systems</td>
</tr>
<tr>
<td>AT 120* Automotive Electrical I</td>
</tr>
<tr>
<td>AT 220 Automotive Electrical II</td>
</tr>
<tr>
<td>AT 130 Engine Performance I</td>
</tr>
<tr>
<td>AT 230 Engine Performance II</td>
</tr>
<tr>
<td>AT 140 Suspensions and Steering</td>
</tr>
<tr>
<td>AT 150 Automatic Transmissions</td>
</tr>
<tr>
<td>AT 160 Engine Repair</td>
</tr>
<tr>
<td>AT 170 Heating and Air Conditioning</td>
</tr>
<tr>
<td>AT 180 Manual Drivetrain and Axles</td>
</tr>
<tr>
<td>AT 190** Automotive Facility Orientation</td>
</tr>
<tr>
<td>AT 200 Service Department Management</td>
</tr>
</tbody>
</table>

**May be waived with proof of appropriate work experience or education.**

### Automotive - Electrical & Drivivability Specialist

**Certificate of Achievement (Level II)**  
NMC Code 031

This certificate is designed to train students in the automotive systems related to the operation of the engine and its control systems. Emphasis is placed on the automotive electrical and electronic control systems. For students to be awarded this Electrical and Drivability Specialist certificate, they must pass the related State of Michigan exams or ASE test for all five of the required automotive courses.

**Foundation Requirements**

For successful completion of the AT courses, placement into ENG 111 is recommended; and completion of MTH 08 or placement into MTH 23 is recommended. For incoming students that do not meet the recommended level, remedial courses may be recommended.

**Foundation Requirements**

| Credits |
|---------|-------|
| AT 100* Automotive Service Basics | 2 |
| AT 190* Automotive Facility Orientation | 2 |

**Required Courses**

| Credits |
|---------|-------|
| AT 120 Automotive Electrical I | 5 |
| AT 220 Automotive Electrical II | 5 |
| AT 130 Engine Performance I | 5 |
| AT 230 Engine Performance II | 4 |
| AT 160 Engine Repair | 6 |

*May be waived with proof of appropriate work experience or education.*

**Program Completion Requirements**

A minimum of 32 credit hours are required to receive this certificate. Students must choose elective courses from the Automotive Program course list to reach the required credit level.
Automotive - Master Automotive Technician

Certificate of Achievement (Level III)  NMC Code 001

NMC offers this program at both the state and federal levels of certification.

Foundation Requirements
For successful completion of the AT courses, placement into ENG 111 is recommended; and completion of MTH 08 or placement into MTH 23 is recommended. For incoming students that do not meet the recommended level, remedial courses may be recommended.

Certificate Requirements  Credits: 56
AT 100* Automotive Service Basics .................................................. 2
AT 110 Automotive Brake Systems ..................................................... 5
AT 120* Automotive Electrical I ......................................................... 5
AT 220 Automotive Electrical II ............................................................ 5
AT 130 Engine Performance I ............................................................... 5
AT 230 Engine Performance II .............................................................. 4
AT 140 Suspensions and Steering .......................................................... 4
AT 150 Automatic Transmissions ......................................................... 4
AT 160 Engine Repair .......................................................... 6
AT 170 Heating and Air Conditioning .................................................... 6
AT 180 Manual Drivetrain and Axles .................................................... 6
AT 190* Automotive Facility Orientation ............................................. 2
AT 200 Service Department Management .............................................. 2

* May be waived with proof of appropriate work experience or education.

Must pass all eight (8) State or ASE certification tests to be awarded this certificate.

Automotive - Under Car Specialist

Certificate of Achievement (Level II)  NMC Code 032

This certificate is designed to train students in the systems underneath the automobile. These systems include brakes, suspension, and drive train. For students to be awarded this Under Car Specialist certificate, they must pass the related State of Michigan or ASE test for all five of the required automotive courses.

Foundation Requirements
For successful completion of the AT courses, placement into ENG 111 is recommended; and completion of MTH 08 or placement into MTH 23 is recommended. For incoming students that do not meet the recommended level, remedial courses may be recommended.

Certificate Requirements  Credits
AT 100* Automotive Service Basics .................................................. 2
AT 190* Automotive Facility Orientation ............................................. 2

Required Courses
AT 110 Automotive Brake Systems .................................................... 5
AT 120 Automotive Electrical I ............................................................. 5
AT 140 Suspension and Steering .......................................................... 4
AT 150 Automatic Transmissions ......................................................... 6
AT 180 Manual Drivetrain and Axles .................................................... 6

* May be waived with proof of appropriate work experience or education.

Program Completion Requirements
A minimum of 32 credit hours are required to receive this certificate. Students must choose elective courses from the Automotive Program course list to reach the required credit level.
## Aviation

### Associate in Applied Science Degree

**NMC Code 562**

### General Education Requirements  
**Credits: 16-17**
- Communications: ENG 111 and ENG 112 or ENG 220 or BUS 231 ............................................ 6-8
- Humanities: Any Group 1 Course .................................................. 3
- Mathematics: Placment into MTH 111 or higher, or completion of MTH 23* ........................................ (4)
- Science: Any Group 1 Course with lab .......................................... 4
- Social Sciences: Any Group 1 course ............................................. 3

*These credits do not count toward degree requirements.*

### Occupational Specialty Requirements  
**46-48**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVF 111</td>
<td>Private Flight</td>
<td>5</td>
</tr>
<tr>
<td>AVF 118</td>
<td>Instrument Flight I</td>
<td>1</td>
</tr>
<tr>
<td>AVF 130</td>
<td>Instrument Flight II</td>
<td>2</td>
</tr>
<tr>
<td>AVF 230</td>
<td>Commercial Flight I</td>
<td>2</td>
</tr>
<tr>
<td>AVF 232</td>
<td>Commercial Flight II</td>
<td>3</td>
</tr>
<tr>
<td>AVF 234</td>
<td>Commercial Flight III</td>
<td>2</td>
</tr>
<tr>
<td>AVF 271</td>
<td>Multi-Engine Rating</td>
<td>1</td>
</tr>
<tr>
<td>AVG 101</td>
<td>Private Pilot Ground School</td>
<td>5</td>
</tr>
<tr>
<td>AVG 161</td>
<td>Mechanics for Pilots</td>
<td>3</td>
</tr>
<tr>
<td>AVG 190</td>
<td>Aviation Weather</td>
<td>3</td>
</tr>
<tr>
<td>AVG 202</td>
<td>Advanced Aircraft Systems</td>
<td>3</td>
</tr>
<tr>
<td>AVG 204</td>
<td>Airline Aircraft Ground School or AVG 204</td>
<td>5</td>
</tr>
<tr>
<td>AVG 240</td>
<td>Corporate Aviation Ground</td>
<td>3</td>
</tr>
<tr>
<td>AVG 251</td>
<td>Commercial Ground School</td>
<td>4</td>
</tr>
<tr>
<td>AVG 252</td>
<td>Instrument Ground School</td>
<td>4</td>
</tr>
<tr>
<td>AVG 381</td>
<td>Instructor Ground School</td>
<td>5</td>
</tr>
<tr>
<td>AVG 382</td>
<td>Instructor Ground School</td>
<td>2</td>
</tr>
<tr>
<td>AVG 383</td>
<td>Instructor Ground School</td>
<td>2</td>
</tr>
<tr>
<td>AVG 384</td>
<td>Instructor Ground School</td>
<td>2</td>
</tr>
</tbody>
</table>

**Elective Course.................................................................0-2**

Students seeking an AAS Degree in Aviation Flight from NMC shall earn the required aviation credits listed for their degree or a combination of three methods:

1. Aviation courses listed in the NMC catalog;
2. Approved transfer credit;
3. NMC competency testing - maximum of 17 aviation credits may be obtained through competency testing, not to include AVF 271, AVF 284, AVF 382 and AVG 381.

Testing allowed only with director’s approval.

To obtain the Associate in Applied Science Degree, students must complete a minimum of three flight courses listed in this catalog through the normal process for obtaining credit, and complete a minimum of 64 credit hours. All AVF and AVG courses must be completed with a 2.0 grade or better. Please consult an aviation advisor for scheduling guidelines.


Before beginning flight training, students must obtain a medical certificate from an FAA-approved doctor. Visit [www.flightphysical.com](http://www.flightphysical.com) or [www.faa.gov](http://www.faa.gov) for a list of FAA-approved doctors. Students must be cleared to fly by the TSA before receiving flight instruction.

### Program Requirements  
**64**

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## Bridge Program

### Workforce Training

The NMC Bridge Program is designed for the nontraditional adult learner’s transition into higher education or to upgrade workforce skills. This academic program offers skill set development through intensive, hands-on curricula in mathematics, communications (writing, speaking, listening) and technology in a learning community environment. Learners opt for industry-recognized Microsoft certifications and prepare to become online learners as well as lifelong learners as they work through a career development process with employability activities that determine career pathways.

### Foundational Bridge Classes  
**Credits: 11**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPC 092</td>
<td>Bridge to Math</td>
<td>3</td>
</tr>
<tr>
<td>BPC 094</td>
<td>Bridge to Communication</td>
<td>4</td>
</tr>
<tr>
<td>BPC 096</td>
<td>Bridge to Technology</td>
<td>4</td>
</tr>
</tbody>
</table>

*Denotes non-credit, developmental classes.*

### Two credits from the following:  
**2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 109A</td>
<td>Keyboarding I</td>
<td>2</td>
</tr>
<tr>
<td>CIT 120A</td>
<td>Microsoft Word Level I A</td>
<td>1</td>
</tr>
<tr>
<td>CIT 120B</td>
<td>Microsoft Word Level I B</td>
<td>1</td>
</tr>
</tbody>
</table>

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Program Information

2009 - 2011 NMC CATALOG
Business Administration

Associate in Applied Science Degree

Computer Applications ........................................... NMC Code 122
Entrepreneur .......................................................... NMC Code 151
General ................................................................. NMC Code 105
Insurance ............................................................... NMC Code 157
Management ............................................................ NMC Code 115
Marketing ............................................................... NMC Code 107

This program prepares students for the challenges of the ever-changing world of business. Specialized courses and liberal arts studies provide students with a foundation needed to pursue careers characterized by technology, constant change, and increasing competition.

The order in which courses are taken is not critical except where prerequisites are involved. Course substitutions may be made only with the approval of the program coordinator or the academic area chair. It is strongly encourage that students meet with an academic advisor because not all classes are offered online every semester. Students considering transfer should see an advisor.

General Education Requirements

Credits: 17
Communications: ENG 111 and BUS 231 ......................... 7
Humanities: PHL 202 or PHL 201 ................................. 3
Mathematics: Placement into MTH 111 or higher, or completion of MTH 23* .............................................. (4)
Science: Science Group 1 course with a lab ..................... 4
Social Sciences: ECO 201 ............................................ 3
*These credits do not count toward degree requirements.

Occupational Specialty Requirements 35

ACC 121 Accounting Principles I ................................ 4
ACC 122 Accounting Principles II ............................... 4
BUS 101 Introduction to Business ............................... 3
BUS 105 Business Math ........................................... 3
BUS 150 Interpersonal Relations ................................. 2
BUS 156 Essentials of Customer Service ....................... 1
BUS 261 Business Law I .......................................... 3
CIT 100 Computers in Business-An Intro ....................... 3
CIT 210 Electronic Spreadsheets ................................ 3
MGT 241 Principles of Management ............................ 3
MKT 251 Human Resources Management .................... 3
MKT 201 Principles of Marketing ................................ 3

Areas of Concentration 12-13

Select at least 12-13 credits from your area of concentration:

General Business 12
Any 12 credits from the other five concentration areas.

Computer Applications

CIT 124A Microsoft PowerPoint I A ............................. 1
CIT 124B Microsoft PowerPoint I B ............................. 1
CIT 155 Personal Computer Maintenance ..................... 2
CIT 212 Intro. to Database Management ...................... 3
CIT 213 Networking Technologies ............................. 4
CIT 215 Windows Server Environment ......................... 3
CIT 216 Computerized Accounting Systems ................. 2
CIT 217 XHTML Programming ................................ 2
CIT 233 Project Management .................................... 3
CIT 290 CIT Internship .......................................... 3

Entrepreneur

BUS 262 Business Law II ......................................... 3
CIT 216 Computerized Accounting Systems ................. 2
CIT 233 Project Management .................................... 3
MGT 245 Principles of Entrepreneurship .................... 3
MKT 210 Principles of Selling .................................. 3

Insurance

BUS 111 Property and Casualty Insurance ..................... 3
BUS 112 Life and Health Insurance .......................... 3
BUS 113 Commercial Insurance ................................ 3
Internship ............................................................ 3

Management

BUS 262 Business Law II ......................................... 3
BUS 290 Business Administration Internship ............... 3
CIT 124A Microsoft PowerPoint I A ............................. 1
CIT 124B Microsoft PowerPoint I B ............................. 1
CIT 216 Computerized Accounting Systems ................. 2
CIT 233 Project Management .................................... 3
ECO 202 Principles of Microeconomics ....................... 3
ENG 112 English Composition .................................. 4
MGT 245 Entrepreneurship ...................................... 3
MTH 111* Intermediate Algebra ............................... 4
MTH 131 Probability and Statistics .......................... 3

Marketing

BUS 262 Business Law II ......................................... 3
BUS 290 Business Administration Internship ............... 3
CIT 124A Microsoft PowerPoint I A ............................. 1
CIT 124B Microsoft PowerPoint I B ............................. 1
ENG 112 English Composition .................................. 4
MGT 245 Entrepreneurship ...................................... 3
MKT 210 Principles of Selling .................................. 3
MKT 241 Principles of Advertising ............................ 3
MTH 111* Intermediate Algebra ............................... 4
MTH 131 Probability and Statistics .......................... 3
* Or a higher level math course, excluding MTH 116 and MTH 118.

Program Requirements 64
Business Administration - Online

**Associate in Applied Science Degree**

Computer Applications ........................................... NMC Code 122
General Studies ...................................................... NMC Code 105
Management ........................................................... NMC Code 115
Marketing ............................................................... NMC Code 107

**Online Option for the General Business Concentration:**
NMC offers an online alternative for students pursuing an Associate in Applied Science degree with a Business Administration - General concentration. It includes a hands-on internship and computer lab experiences in addition to online classes. Students are strongly encouraged to meet with an academic advisor because not all classes are offered online every semester.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Communications: ENG 111 and BUS 231</td>
</tr>
<tr>
<td>3</td>
<td>Humanities: PHL 202 or PHL 201</td>
</tr>
<tr>
<td>3</td>
<td>Mathematics: Placement into MTH 111 or higher, or completion of MTH 23*</td>
</tr>
<tr>
<td>4</td>
<td>Science: Science Group 1 course with a lab</td>
</tr>
<tr>
<td>3</td>
<td>Social Sciences: ECO 201</td>
</tr>
</tbody>
</table>

* These credits do not count toward degree requirements.

**Occupational Specialty Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACC 121 Accounting Principles I</td>
</tr>
<tr>
<td>4</td>
<td>ACC 122 Accounting Principles II</td>
</tr>
<tr>
<td>3</td>
<td>BUS 101 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 105 Business Math</td>
</tr>
<tr>
<td>2</td>
<td>BUS 150 Interpersonal Relations</td>
</tr>
<tr>
<td>1</td>
<td>BUS 156 Essentials of Customer Service</td>
</tr>
<tr>
<td>3</td>
<td>BUS 261 Business Law I</td>
</tr>
<tr>
<td>3</td>
<td>CIT 100 Computers in Business-An Intro</td>
</tr>
<tr>
<td>3</td>
<td>CIT 210 Electronic Spreadsheets</td>
</tr>
<tr>
<td>3</td>
<td>MGT 241 Principles of Management</td>
</tr>
<tr>
<td>3</td>
<td>MGT 251 Human Resources Management</td>
</tr>
<tr>
<td>3</td>
<td>MKT 201 Principles of Marketing</td>
</tr>
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</table>

**General Area of Concentration**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>BUS 262 Business Law II</td>
</tr>
<tr>
<td>3</td>
<td>BUS 290 Business Administration Internship</td>
</tr>
<tr>
<td>2</td>
<td>CIT 212 Introduction to Database Management</td>
</tr>
<tr>
<td>4</td>
<td>CIT 213 Networking Technologies</td>
</tr>
<tr>
<td>2</td>
<td>CIT 217 XHTML Programming</td>
</tr>
<tr>
<td>3</td>
<td>ECO 202 Principles of Microeconomics</td>
</tr>
<tr>
<td>4</td>
<td>ENG 112 English Composition</td>
</tr>
<tr>
<td>4</td>
<td>MTH 111 Intermediate Algebra</td>
</tr>
<tr>
<td>3</td>
<td>MTH 131 Probability and Statistics</td>
</tr>
</tbody>
</table>

If you are seeking online courses for your specific program that are not currently offered online, check out the Michigan Community College Virtual Learning Consortium at [www.vcampus@mccvlc.org](http://www.vcampus@mccvlc.org) for online course options.

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CAD/CAM Detailer - Advanced Manufacturing

**Associate in Applied Science Degree**

As an NMC Advanced Manufacturing student, you will study drafting and design standards, 2D AutoCAD and 3D SolidWorks CAD software, manual machining, CNC and CAM programming, and other related topics. You may seek job opportunities as a CAD drafter or 3D modeler, CNC or CAM programmer, CNC operator, or a blend of these technologies. Manufacturing companies employing the latest technology use 3D parametric modeling (CAD) to create part and assembly models. Computer Numerical Controlled (CNC) machines or dedicated mass production machines are then used to make the parts. Computer Aided Machining software (CAM) generates cutter paths for the machines based on the solid models. Advanced Manufacturing graduates are ready to begin rewarding careers or transfer for a bachelor’s degree.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-8</td>
<td>Communications: ENG 111 and ENG 112* or ENG 220</td>
</tr>
<tr>
<td>3</td>
<td>Humanities: Any Group 1 course</td>
</tr>
<tr>
<td>4</td>
<td>Mathematics: Placement into MTH 121 or higher or Completion of MTH 111</td>
</tr>
<tr>
<td>4</td>
<td>Science: PHY 105 or PHY 121*</td>
</tr>
<tr>
<td>3</td>
<td>Social Sciences: Any Group 1 course</td>
</tr>
</tbody>
</table>

* Recommended for students planning to transfer. Students placing above MTH 111 must select an elective to reach at least 64 total credits.

**Occupational Specialty Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>3</td>
<td>DD 101 Print Reading and Sketching, Mfg.</td>
</tr>
<tr>
<td>3</td>
<td>DD 110 Basic Metallurgy</td>
</tr>
<tr>
<td>2</td>
<td>DD 120 Computer Aided Drafting (AutoCAD)</td>
</tr>
<tr>
<td>2</td>
<td>DD 125 Mechanical Drafting (AutoCAD)</td>
</tr>
<tr>
<td>4</td>
<td>DD 150 Detail Drafting</td>
</tr>
<tr>
<td>3</td>
<td>DD 160 Tolerancing and GD&amp;T</td>
</tr>
<tr>
<td>4</td>
<td>DD 170 Part &amp; Assembly Modeling</td>
</tr>
<tr>
<td>4</td>
<td>DD 240 Adv. Part and Assembly Modeling</td>
</tr>
<tr>
<td>3</td>
<td>DD 295 Advanced Manufacturing Project or DD 290 Internship (permission required)</td>
</tr>
<tr>
<td>3</td>
<td>MFG 111 Math for Manufacturing</td>
</tr>
<tr>
<td>3</td>
<td>MFG 113 Machining I</td>
</tr>
<tr>
<td>3</td>
<td>MFG 114 Machining II</td>
</tr>
<tr>
<td>3</td>
<td>MFG 211 CNC Programming</td>
</tr>
<tr>
<td>3</td>
<td>MFG 212 Computer-Aided Machining</td>
</tr>
</tbody>
</table>

**Program Requirements**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-66</td>
<td>DD 101 Print Reading and Sketching, Mfg.</td>
</tr>
<tr>
<td></td>
<td>DD 110 Basic Metallurgy</td>
</tr>
<tr>
<td></td>
<td>DD 120 Computer Aided Drafting (AutoCAD)</td>
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<td></td>
<td>DD 150 Detail Drafting</td>
</tr>
<tr>
<td></td>
<td>DD 160 Tolerancing and GD&amp;T</td>
</tr>
<tr>
<td></td>
<td>DD 170 Part &amp; Assembly Modeling</td>
</tr>
<tr>
<td></td>
<td>DD 240 Adv. Part and Assembly Modeling</td>
</tr>
<tr>
<td></td>
<td>DD 295 Advanced Manufacturing Project or DD 290 Internship (permission required)</td>
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<td></td>
<td>MFG 111 Math for Manufacturing</td>
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<td></td>
<td>MFG 113 Machining I</td>
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<tr>
<td></td>
<td>MFG 114 Machining II</td>
</tr>
<tr>
<td></td>
<td>MFG 211 CNC Programming</td>
</tr>
<tr>
<td></td>
<td>MFG 212 Computer-Aided Machining</td>
</tr>
</tbody>
</table>

To apply, use the three-digit NMC Code on your admissions application.
CAD/CAM Trainee - Mechanical

Certificate of Achievement (Level I) NMC Code 028

Certificate completers learn basic AutoCAD and SolidWorks functions and demonstrate their abilities by applying these functions to mechanical drafting projects. They are prepared to work under supervision to update CAD drawings or create new drawings similar to a given example. With instruction, completers can learn company standards, practices, and product lines which will increase their value.

Certificate Requirements Credits: 18
DD 101 Print Reading and Sketching, Mfg. .............. 3
DD 120 Comp. Aided Drafting (AutoCAD)............... 2
DD 125 Mechanical Drafting (AutoCAD)............... 2
DD 150 Detail Drafting............................................. 4
DD 170 Part and Assembly Modeling.................... 4
MTH 23 or placement into MTH 111 or higher .......... (4)

CAD/CAM Drafter - Mechanical

Certificate of Achievement (Level II) NMC Code 027

Certificate completers learn 2D mechanical drafting and 3D part and assembly modeling using AutoCAD and SolidWorks software. Threads, fasteners, conventional tolerancing, and geometric tolerancing are presented in the context of detail drawings for tooling assemblies. Applied mathematics and conventional machining are also presented. Students are prepared for entry level CAD drafting positions in companies that produce their own products or companies that produce components for other companies.

Certificate Requirements Credits: 34
DD 101 Print Reading and Sketching, Mfg. .............. 3
DD 110 Basic Metallurgy............................................ 3
DD 120 Comp. Aided Drafting (AutoCAD)............... 2
DD 125 Mechanical Drafting (AutoCAD)............... 2
DD 150 Detail Drafting.............................................. 4
DD 160 Tolerancing and GD&T.............................. 4
DD 170 Part and Assembly Modeling.................... 4
DD 240 Advanced Part and Assembly Modeling....... 4
MFG 111 Math for Manufacturing....................... 3
MFG 113 Machining I............................................. 3
MFG 114 Machining II........................................... 3
MTH 23 or placement into MTH 111 or higher .......... (4)

Child Development

Certificate of Achievement (Level II) NMC Code 002

This program is designed to be a building block program. By adding certain classes, a student may complete the requirements for an associate's degree and students may transfer to a college or university to complete a bachelor's degree. Students may also elect to stay in Traverse City and transfer to the University Center.

The following classes are approved by the National Child Development Associates (CDA). They meet the required hours in the various functional areas. A chart showing the breakdown of hours is available in the Social Sciences Academic Area office.

Students are encouraged to work closely with the Child Development coordinator to complete this certificate. A 2.0 GPA must be maintained to receive the certificate and 20 of the 36 credits must be earned at NMC.

Child Development Certificate of Achievement Outcomes

Students completing the Child Development Certificate will be able to reliably demonstrate a working knowledge of child development from conception to twelve years of age; possess observation skills and tools to assess, evaluate, and build individualized plans for children; apply curriculum development knowledge to provide age appropriate/multicultural activities and materials; apply environment design knowledge; demonstrate a working understanding of special need children/families in inclusion/self-contained classrooms; possess working knowledge and skills in discipline management, development of self-esteem and prosocial behaviors; apply knowledge of program management and philosophy building; apply knowledge in working with families, including diverse/multi-cultural systems.

Certificate Requirements Credits: 34-35
CD 101 Early Childhood Education....................... 3
CD 202 Human Growth and Development............... 5
CD 203 Guiding Young Children.......................... 3
CD 204 Early Childhood Curriculum.................... 3
CD 206 Infant/Toddler Development..................... 3
CD 220 Childhood Program Management................ 3
CD 230 Early Language and Literacy.................... 3
ENG 210 Children's Literature........................... 3
PSY 101 Intro to Psychology................................ 3
PSY 212 Psychology/Exceptional Child.................. 3
CD 290 Service Learning Internship Experience* ....... 2-3

* This internship can be split over more than one semester.
Clerical Support
Certificate of Achievement (Level II)  NMC Code 020

Well-trained office professionals continue to be in demand and play an integral role in the successful operation of an organization. They work as a team with managers, professionals, and other support staff to control and manage administrative operations.

The Clerical Support and Administrative Support Specialist Certificates focus on specific skills which area employers consider essential.

Certificate Requirements  Credits: 17
Prerequisite(s): CIT 109A Beginning Keyboarding I or equivalent skill
ACC  121  Accounting Principles I ........................................... 4
BUS  101  Introduction to Business ......................................... 3
BUS  130  Mechanics of Business Writing................................. 3
BUS  150  Interpersonal Relations........................................... 2
BUS  156  Essentials of Customer Service................................. 1
CIT  109B  Keyboarding II...................................................... 2
CIT  122A  Computer and Internet Basics I............................ 1
CIT  122B  Computer and Internet Basics II............................ 1

Computer Studies - Computer Information Technology - General
Associate in Applied Science Degree w/Bachelor in Science - Computer Information Systems through Ferris State University  NMC Code 106

This program gives students comprehensive computer instruction in addition to a background in business and liberal arts. Successful Associate Degree graduates are qualified for entry-level positions as computer technicians, programmers, and other information technology positions.

Students use state-of-the-art desktop computers and servers to develop computer programs, to access the Internet, and to gain experience with a Local Area Network utilizing Linux and Windows server operating systems. Students work with advanced features and peripherals including graphics, color printers, laser printers, and a variety of networking equipment. Students considering transfer should see an advisor.

General Education Requirements  Credits: 16-18
Communications: ENG 111 and either BUS 231 or ENG 112 ........................................ 6-8
Humanities: PHL 202 or PHL 105 ........................................... 3
Mathematics: Placement into MTH 121 or higher, or completion of MTH 111* ...................................(4)
Science: Any Group 1 course with a lab ............................. 4
Social Sciences: Any Group 1 course (ECO 201 recommended) ........................................ 3
* The four credits of MTH 111 do not count toward total CIT program credits.

Occupational Specialty Requirements 48-49
ACC  121  Accounting Principles I ........................................... 4
BUS  101  Introduction to Business or
ACC  122  Accounting Principles II ...................................... 3-4
CIT  110  Programming Logic & Design ................................ 2
CIT  140  .NET Application Programming ............................. 3
CIT  156  CompTIA A+® Certification I ................................. 3
CIT  157  CompTIA A+® Certification II ................................. 3
CIT  255  .NET Object-Oriented Programming ...................... 3
CIT  210  Electronic Spreadsheets or
CIT  233  Project Management ............................................ 3
CIT  212  Introduction to Database Management .................... 3
CIT  213  Networking Technologies ...................................... 4
CIT  215  Windows Server Environment ............................... 3
CIT  217  XHTML Programming .......................................... 2
CIT  230  Systems Analysis and Design ................................ 3
CIT  248  SQL Server Databases ......................................... 3
CIT  256  Linux Administration ............................................ 3
CIT  290  CIT Internship* .................................................. 3

Program Requirements  64-67

Ferris State University Requirements  30
ISYS 411  Project Management ........................................... 3
ISYS 470  Database Administration .................................... 3
ISYS 488  Systems Design & Implementation ....................... 3
ISYS 489  Adv. Systems Design & Implementation ................ 3
BUSN 499  Interdisciplinary Experience .............................. 3
FINC 322  Financial Management I ..................................... 3
ISYS 321  Business Information Systems ............................ 3
MGMT 370  Quality/Operations Management ..................... 3
PLSC 300+  Social Awareness Elective 300/400 ........................ 3
ENGL 325  Advanced Writing in Business ......................... 3

Other NMC courses for Bachelor's degree are:  36
ACC  122  Principles of Accounting II .................................. 4
BUS  216  Business Law I ................................................... 3
MGT  241  Principles of Management .................................. 3
MKT  201  Principles of Marketing ....................................... 3
COM  111  Public Speaking ................................................. 4
ENG  112  English Composition ......................................... 4
ISYS  321  Business Information Systems ............................ 3
Science Class ............................................................... 3
2 Cultural Enrichment Classes ........................................ 6
EKO  202  Principles of Macroeconomics ............................. 3
MTH 131  Probabilities and Statistics ....................... 3
* Two competencies are required for the Internship course: a 3.0 GPA in CIT classes (with 20 credits and an overall average of 2.5 and department approval) and a keyboarding competency.
While a 3.0 GPA in CIT classes is required for this internship, an alternative, campus-based internship opportunity is available for those students who do not meet this requirement.

Ferris State University
Program Requirements  Minimum 126

Contact the Ferris State University-University Center Office for updates at (231) 995-1734.

www.nmc.edu  |  77
Computer Studies - Computer Information Technology - Developer

Associate in Applied Science Degree  NMC Code 108

This program gives students a comprehensive background in developing desktop, web, and database applications for a computer. In addition, students receive a basic background in business and liberal arts. Successful Associate Degree graduates are qualified for entry-level positions as computer programmers, web application developers, and database analysts.

Students use state-of-the-art desktop computer hardware and software to create computer programs, construct databases, and implement Internet applications. Students work with advanced integrated development environment and peripherals including Visual Studio, graphics, color printers, laser printers, and a variety of networking equipment.

Students considering transfer should see an advisor.

**General Education Requirements**  Credits: 17-18

**Communications:** ENG 111  and either ENG 112  or ENG 220 ........................................ 7-8

**Humanities:** PHL 105  or PHL 202 ........................................ 3

**Mathematics:** Placement into MTH 121  or higher, or completion of MTH 111* .................. (4)

**Science:** Any Group 1 with a lab ................................. 4

**Social Sciences:** Any Group 1 course ............................ 3

* The four credits of MTH 111 do not count toward total CIT program credits.

**Occupational Specialty Courses**  51-52

ACC 121  Accounting Principles I ................................. 4

BUS 101  Introduction to Business  or .......................... 3

ACC 122  Accounting Principles II ............................ 4

BUS 150  Interpersonal Relations .................................. 2

BUS 231  Professional Communications .......................... 3

CIT 110  Programming Logic and Design .................. 2

CIT 140  .NET Application Programming .................. 3

CIT 155  Personal Computer Maintenance .................. 2

CIT 210  Electronic Spreadsheets .................................. 3

CIT 212  Introduction to Database Management .......... 3

CIT 213  Networking Technologies .......................... 4

CIT 217  XHTML Programming .................................... 2

CIT 218  Web App Programming ASP .NET .............. 3

CIT 220  XML Programming .................................... 2

CIT 230  Systems Analysis and Design .............. 3

CIT 233  Project Management .................................... 3

CIT 248  SQL Server Databases .................................. 3

CIT 255  .NET Object-Oriented Programming ............ 3

CIT 290  CIT Internship ........................................ 3

**Program Requirements**  68-70

Computer Studies - Computer Information Technology-Infrastructure

Associate in Applied Science Degree  NMC Code 125

This program provides students with a comprehensive background in computer hardware, operating systems, local area networking, and internetwork routing and switching. This degree is designed to prepare students for the following internationally recognized certifications:

- CompTIA A+® IT Technician
- CompTIA Network+® Certification
- CompTIA Security+® Certification
- Cisco CCNA (Cisco Certified Network Associate)
- MCTS - Microsoft Certified Technology Specialist
- MCITP - Microsoft Certified Information Technology Professional

Successful Associate Degree graduates are qualified for entry-level positions as hardware technicians, network administrators, and infrastructure support specialists. NMC is a Cisco Local Networking Academy. CompTIA (Computing Technology Industry Association), Microsoft, and Cisco certification exams are administered by VUE or Prometrics Testing Services. For current program information, please call (231) 995-1166.

Students considering transfer should see an advisor.

**General Education Requirements**  Credits: 16-18

**Communications:** ENG 111  and either ENG 112  or ENG 220 ........................................ 6-8

**Humanities:** PHL 105  or PHL 202 ........................................ 3

**Mathematics:** Placement into MTH 121  or higher, or completion of MTH 111* .................. (4)

**Science:** Any Group 1 course with a lab ................................. 4

**Social Sciences:** Any Group 1 course ............................ 3

* The four credits of MTH 111 do not count toward total CIT program credits.

**Occupational Specialty Courses**  51

BUS 150  Interpersonal Relations .................................. 2

CIT 127  Windows Server Administration .................. 3

CIT 156  CompTIA A+® Certification I .................. 3

CIT 157  CompTIA A+® Certification II .................. 3

CIT 160  Cisco Internetworking I .......................... 4

CIT 161  Cisco Internetworking II .......................... 4

CIT 213  Networking Technologies .......................... 4

CIT 215  Windows Server Environment .......................... 3

CIT 233  Project Management .................................... 3

CIT 240  Network Security Management .................. 3

CIT 242  Windows Client Administration .................. 2

CIT 246  Windows Server Infrastructure .................. 3

CIT 256  Linux Administration .................................. 3

CIT 260  Cisco Internetworking III .......................... 4
CIT 261  Cisco Internetworking IV  .........................4
CIT 290  CIT Internship  ........................................3
** Two competencies are required for the Internship Class:
a 3.0 GPA in CIT classes (with 20 credits and an overall average of 2.0 and department approval), and a keyboarding competency.

While a 3.0 GPA in CIT classes is required for this internship, an alternative, campus-based internship opportunity is available for those students who do not meet this requirement.

Program Requirements  67-69

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**Computer Studies - Infrastructure Specialist I**

**Certificate of Achievement (Level I)  NMC Code 033**

The Infrastructure Specialist I Certificate of Achievement prepares computer professionals to assemble, upgrade, maintain and repair personal computers and work in the area of local area networks. The program is designed to prepare students for the following three internationally recognized certifications:

- CompTIA A+® Certification
- CompTIA Network+® Certification
- CompTIA Security+® Certification

CompTIA® (Computing Technology Industry Association) exams are administered by VUE Testing Services or Prometrics. For current program information, please call (231) 995-1166 or (231) 995-2000.

**Certificate Requirements  Credits: 17**

For CompTIA A+® Certification:
CIT 156  CompTIA A+® Certification I  ..............3
CIT 157  CompTIA A+® Certification II  ..............3
CIT 242  Windows Client Administration ................2
BUS 150  Interpersonal Relations .........................2

For CompTIA Network+® Certification:
CIT 213  Networking Technologies ......................4

For CompTIA Security+ Certification:
CIT 240  Network Security Management ................3

---

**Computer Studies - Infrastructure Specialist II**

**Certificate of Achievement (Level II)  NMC Code 030**

Students completing the Infrastructure Specialist I certificate may elect to continue their education and obtain a level II certificate. The Cisco CCNA certification is an industry recognized certification in internetwork routing and switching. NMC is a Cisco Local Networking Academy.

Cisco Certification Exams are administered by VUE Testing Services. For current program information, please call (231) 995-1166.

**Certificate Requirements  Credits: 33**

Completion of Infrastructure Specialist I certificate ........17
CIT 160  Cisco Internetworking I  .........................4
CIT 161  Cisco Internetworking II  .........................4
CIT 260  Cisco Internetworking III  .......................4
CIT 261  Cisco Internetworking IV  .......................4

---

**Computer Studies - Infrastructure Specialist III**

**Certificate of Achievement (Level III)  NMC Code 024**

Students completing the Infrastructure Specialist II certificate may elect to continue their education and obtain a level III certificate. The Microsoft MCTS and MCITP certifications are industry-recognized focusing in server and infrastructure environments.

Microsoft Certification Exams are administered by Prometrics Testing Services. For current program information, please call (231) 995-1166.

**Certificate Requirements  Credits: 51**

Completion of Infrastructure Specialist I certificate ........17
Completion of Infrastructure Specialist II certificate ........16

For Microsoft MCTS and MCITP Certification:
CIT 215  Windows Server Environment ..................3
CIT 246  Windows Server Infrastructure ..................3
CIT 247  Windows Server Administration ..................3

**Occupational Requirements**
CIT 233  Project Management  .........................3
CIT 256  Linux Administration  .........................3
CIT 290  CIT Internship  .................................3

NMC. Find it here.
Computer Studies - Industry Certifications

Industry Certifications

Microsoft Office Specialist - Microsoft Office Specialist certification proves expertise in Microsoft applications. Holders of these credentials stand out as truly knowledgeable people. NMC’s approved Microsoft testing center offers open/online training classes in Word, Excel, Access, Outlook and PowerPoint. For additional information on testing and/or training, please call (231) 995-2247.

Microsoft Certified Technology Specialist (MCTS) and Microsoft Certified Information Technology Professional (MCITP) are internationally recognized certifications focusing on Microsoft Windows, server and infrastructure environment.

Cisco CCNA Certification - The CCNA certification (Cisco Certified Network Associate) indicates a foundation in, and apprentice knowledge of networking. CCNA certified professionals can install, configure, and operate LAN, WAN and dial access services for small networks (100 nodes or fewer), including but not limited to use of these protocols: IP, EIGRP, OSPF, Frame Relay, IP RIP, VLANs Rip, Ethernet, Access Lists.

Cisco Internetworking I through Cisco Internetworking IV are courses offered by the NMC Cisco Networking Academy and provide training for the CCNA Exam. CompTIA (Computing Technology Industry Association), Microsoft, and Cisco certification exams are administered by VUE or Prometrics Testing Services. For additional program information, please call (231) 995-1166.

Computer Studies - Office Applications Specialist

Certificate of Achievement (Level I)  NMC Code 035

The Office Applications Specialist certificate helps meet the demand for qualified and knowledgeable people in today’s workplace. It helps students to acquire the desktop applications expertise and basic computer skills needed to work more productively and efficiently with Microsoft Office.

This NMC credential also serves to train candidates for the globally recognized Microsoft Certified Applications Specialist series of certifications. NMC is a Microsoft Office approved testing center, and the certification exams are administered at the Aero Park campus. For more information, please call (231) 995-2247.

Certificate Requirements  Credits: 16

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 120A</td>
<td>Microsoft Word Level I A</td>
<td>1</td>
</tr>
<tr>
<td>CIT 120B</td>
<td>Microsoft Word Level I B</td>
<td>1</td>
</tr>
<tr>
<td>CIT 121A</td>
<td>Microsoft Word Level II A</td>
<td>1</td>
</tr>
<tr>
<td>CIT 121B</td>
<td>Microsoft Word Level II B</td>
<td>1</td>
</tr>
<tr>
<td>CIT 128</td>
<td>Microsoft Excel Level I</td>
<td>2</td>
</tr>
<tr>
<td>CIT 129</td>
<td>Microsoft Excel Level II</td>
<td>2</td>
</tr>
<tr>
<td>CIT 124A</td>
<td>Microsoft PowerPoint Level I A</td>
<td>1</td>
</tr>
<tr>
<td>CIT 124B</td>
<td>Microsoft PowerPoint Level I B</td>
<td>1</td>
</tr>
<tr>
<td>CIT 125</td>
<td>Microsoft Outlook</td>
<td></td>
</tr>
<tr>
<td>CIT 126</td>
<td>Microsoft Access Level I</td>
<td>2</td>
</tr>
</tbody>
</table>
**Electives**  
Choose from the following:  
ACC 121 Accounting Principles I ........................................ 4  
CIT 109A Keyboarding I .................................................. 2  
CIT 122A Computer & Internet Basics I .............................. 1  
CIT 122B Computer & Internet Basics II ............................ 1  
CIT 125 Microsoft Outlook .............................................. 2  
CIT 126 Microsoft Access Level I ..................................... 2  
CIT 127 Microsoft Access Level II ................................... 2  
CIT 155 Personal Computer Maintenance .......................... 2

---

**Computer Studies - Support Specialist**  
**Certificate of Achievement (Level I)  NMC Code 006**

Students complete course work in business and computer operations leading to a certificate. Graduates are qualified for positions as help-desk computer technicians, office specialists, and other entry-level IT related positions.

Students use state-of-the-art computers, Microsoft Office Suite, and gain experience with a Local Area Network using the Windows operating system. Students work with advanced features and peripherals including graphics, color printers, and laser printers.

**Certificate Requirements**  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 101</td>
<td>3</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BUS 105</td>
<td>3</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>BUS 150</td>
<td>2</td>
<td>Interpersonal Relations</td>
</tr>
<tr>
<td>BUS 231</td>
<td>3</td>
<td>Professional Communications</td>
</tr>
<tr>
<td>CIT 120A</td>
<td>1</td>
<td>Microsoft Word Level I A</td>
</tr>
<tr>
<td>CIT 120B</td>
<td>1</td>
<td>Microsoft Word Level I B</td>
</tr>
<tr>
<td>CIT 121A</td>
<td>1</td>
<td>Microsoft Word Level II A</td>
</tr>
<tr>
<td>CIT 122A</td>
<td>1</td>
<td>Computer and Internet Basics I</td>
</tr>
<tr>
<td>CIT 122B</td>
<td>1</td>
<td>Computer and Internet Basics II</td>
</tr>
<tr>
<td>CIT 124A</td>
<td>1</td>
<td>Microsoft PowerPoint Level I A</td>
</tr>
<tr>
<td>CIT 124B</td>
<td>1</td>
<td>Microsoft PowerPoint Level I B</td>
</tr>
<tr>
<td>CIT 155</td>
<td>1</td>
<td>Personal Computer Maintenance or</td>
</tr>
<tr>
<td>CIT 156</td>
<td>2-3</td>
<td>CompTIA A+® Certification I</td>
</tr>
<tr>
<td>CIT 157</td>
<td>2-3</td>
<td>CompTIA A+® Certification II</td>
</tr>
<tr>
<td>CIT 210</td>
<td>3-4</td>
<td>Electronic Spreadsheets or or</td>
</tr>
<tr>
<td>CIT 128</td>
<td>1</td>
<td>Microsoft Excel Level I and</td>
</tr>
<tr>
<td>CIT 129</td>
<td>3-4</td>
<td>Microsoft Excel Level II</td>
</tr>
<tr>
<td>CIT 212</td>
<td>3-4</td>
<td>Introduction to Database Management or</td>
</tr>
<tr>
<td>CIT 126</td>
<td>2-3</td>
<td>Microsoft Access Level I</td>
</tr>
<tr>
<td>CIT 213</td>
<td>4</td>
<td>Networking Technologies</td>
</tr>
<tr>
<td>CIT 215</td>
<td>3</td>
<td>Windows Server Environment</td>
</tr>
<tr>
<td>CIT 233</td>
<td>3</td>
<td>Project Management</td>
</tr>
<tr>
<td>CIT 292</td>
<td>3</td>
<td>Support Specialist</td>
</tr>
<tr>
<td>ENG 220</td>
<td>3</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>PHL 105</td>
<td>3</td>
<td>Critical Thinking</td>
</tr>
</tbody>
</table>

**Computer Studies - Web Developer I**  
**Certificate of Achievement (Level I)  NMC Code 039**

The progressive Web Developer certificates provide skills to develop interactive, data-driven web sites combined with the tools used in the industry. These certificates, combining hands-on coursework from CIT and VCA course offerings, are selected to give students a well-rounded experience that builds as the courses and certificates are completed. Students interested in these offerings are usually those who love attention to detail, are self-directed and results oriented, and enjoy working with both people and technology. The certificates be completed as stand-alone certificates taken in order, or they can be applied to the electives or major area requirements for an Associate in General Studies or an Associate in Applied Science.

**Level I Certificate Requirements**  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 131</td>
<td>3</td>
<td>2-D Design</td>
</tr>
<tr>
<td>CIT 110</td>
<td>2</td>
<td>Programming Logic and Design</td>
</tr>
<tr>
<td>CIT 217</td>
<td>2</td>
<td>XHTML Programming</td>
</tr>
<tr>
<td>VCA 123</td>
<td>2</td>
<td>Photoshop I</td>
</tr>
<tr>
<td>VCA 147</td>
<td>3</td>
<td>Web Design I</td>
</tr>
<tr>
<td>VCA 150</td>
<td>4</td>
<td>Digital Graphic Design I</td>
</tr>
</tbody>
</table>

**Computer Studies - Web Developer II**  
**Certificate of Achievement (Level II)  NMC Code 040**

**Prerequisites: Completion of all courses listed in the Web Developer Certificate Level I (16 credits)**

**Level I Certificate Requirements**  
<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 231</td>
<td>3</td>
<td>Professional Communications or</td>
</tr>
<tr>
<td>BUS 150</td>
<td>2</td>
<td>Interpersonal Relations and</td>
</tr>
<tr>
<td>BUS 156</td>
<td>1</td>
<td>Essentials of Customer Service</td>
</tr>
<tr>
<td>CIT 140</td>
<td>3</td>
<td>.NET Application Programming</td>
</tr>
<tr>
<td>CIT 212</td>
<td>3</td>
<td>Intro. to Database Management</td>
</tr>
<tr>
<td>CIT 220</td>
<td>3</td>
<td>XML Programming</td>
</tr>
<tr>
<td>CIT 218</td>
<td>3</td>
<td>Web Programming with ASP.NET</td>
</tr>
<tr>
<td>VCA 146</td>
<td>3</td>
<td>Interactive Animation</td>
</tr>
</tbody>
</table>

---
Construction Technology - Carpenter Technology  
**Certificate of Achievement (Level I)  NMC Code 061**

Skilled carpenters must knowledgeably use specialized tools; read blueprints; frame structures; install doors, windows, cabinets, insulation, and finish trim; and construct roofs, decks, and stairways. Being versatile opens a wide range of employment opportunities. The Carpenter Technology curriculum is designed by the industry and aligned with national competency standards. Students receive hands on training in our state-of-the-art science lab. For more information call (231) 995-2007.

**Certificate Requirements**  
**Credits: 18**  
CAR 101 Introduction to Carpentry .......................... 3  
CAR 105 Residential Framing ................................ 3  
CAR 121 General Carpentry Practices ...................... 3  
CAR 125 Interior Carpentry .................................. 3  
CAR 131 Rigging and Concrete Practices .................. 3  
CAR 135 Layout and Formwork ............................... 3  

Construction Technology - Electrical Technology  
**Certificate of Achievement (Level I)  NMC Code 062**

Qualified electricians install, troubleshoot, and repair electrical systems in residential and commercial settings. There is high demand for well-trained electricians nationwide. The Electrical Technology curriculum is designed by the industry and aligned with national competency standards. Students receive hands on training in our state-of-the-art science lab. For more information call (231) 995-2007.

**Certificate Requirements**  
**Credits: 24**  
ELE 101 Introduction to Electrical .......................... 3  
ELE 105 Residential Electrical ............................... 3  
ELE 121 Electrical Applications .............................. 3  
ELE 125 Electrical Components .............................. 3  
ELE 131 Electrical Distribution ................................ 3  
ELE 135 Motor Control Circuits .............................. 3  
ELE 141 Commercial Electrical Systems .................... 3  
ELE 145 Commercial Electrical Controls .................... 3  

Construction Technology - Facilities Maintenance  
**Certificate of Achievement (Level II)  NMC Code 063**

Performing facilities maintenance requires knowledge in several areas. This level II certificate covers reading blueprints, general carpentry, tools of the trade, electrical wiring and schematics, and thermodynamics of refrigeration. Also required will be 14 technical electives that can range from drafting to alternative energy integration into a facility. The Facili-

Construction Technology - HVAC/R Technology  
**Certificate of Achievement (Level I)  NMC Code 064**

There is high demand for qualified technicians in the heating and cooling industry. HVAC/R technicians install, maintain, and repair heating, ventilating, air-conditioning, and refrigeration systems. Because of continuing demand, HVAC/R technicians can usually find employment with good beginning salaries. The HVAC/R Technology curriculum is designed by the industry and aligned with national competency standards. Students receive hands on training in our state-of-the-art science lab. For more information call (231) 995-2007.

**Certificate Requirements**  
**Credits: 18**  
HVA 101 Introduction to HVAC/R ............................. 3  
HVA 105 Thermodynamics of HVAC/R ........................ 3  
HVA 121 Fundamentals of Heating ........................... 3  
HVA 125 A/C Applications ..................................... 3  
HVA 131 Gas Heating Diagnostics ............................ 3  
HVA 135 Commercial HVAC/R ................................ 3  

Construction Technology - Plumbing Technology  

There is high demand for qualified technicians in the plumbing industry. Plumbing technicians install, maintain, and repair plumbing systems. Because of continuing demand, plumbing technicians can usually find employment with good beginning salaries. The Plumbing Technology curriculum is designed by the industry and aligned with national competency standards. Students receive hands on training in our state-of-the-art science lab. For more information call (231) 995-2007.

**Certificate of Achievement (Level II)  NMC Code 065**

Performing facilities maintenance requires knowledge in several areas. This level II certificate covers reading blueprints, general carpentry, tools of the trade, electrical wiring and schematics, and thermodynamics of refrigeration. Also required will be 14 technical electives that can range from drafting to alternative energy integration into a facility. The Facili-
Culinary Arts
Great Lakes Culinary Institute

Associate in Applied Science Degree  NMC Code 109

The Great Lakes Culinary Institute believes in the principle of learning by doing. Extensive hands-on training will give you the competitive advantage in this highly competitive field.

This program is designed to provide rigorous and concentrated study for those students who plan careers in the rapidly-growing food service industry. The program’s main emphasis is to prepare students for entry-level chef and kitchen management positions. Consideration is given to the science and techniques associated with the selection, preparation, and serving of foods to large and small groups.

The Great Lakes Culinary Institute’s facility is located on NMC’s Great Lakes Campus. It is comprised of four culinary labs including a bakery, introductory and food skills kitchen, an advanced cooking kitchen, a garde manger kitchen, a beverage management outlet and Lobdell’s, a 90-seat training restaurant. Upon graduation, students will have an unbeatable combination of knowledge, skills and work experience.

The Great Lakes Culinary Institute is accredited by the American Culinary Federation and is one of fewer than 150 colleges in the U.S. to receive this distinction. Students are eligible for certification as Certified Culinarians upon graduation. Students wishing to pursue a baccalaureate degree may transfer to institutions with which NMC has transfer agreements.

General Education Requirements  Credits: 16-18
Communications: ENG 111 and either BUS 231  or ENG 112 ..............................6-8
Humanities: Any Group 1 course .........................................................3
Mathematics: Placement into MTH 111 or higher, or completion of MTH 23* .......................................................4
Science: Any Group 1 course with a lab........................................4
Social Sciences: Any Group 1 course ........................................3

*These credits do not count toward degree requirements.

Occupational Specialty Requirements  56
CIT 100 Computers in Business-An Intro..................3
CUL 101 Today’s Hospitality Industry.......................3
CUL 110 Safety and Sanitation.....................................2
CUL 111 Professional Cookery.................................6
CUL 118 Intro to Baking..................................................4
CUL 121 Purchasing......................................................2
CUL 190 Culinary Internship........................................2
CUL 210 Nutrition for Culinary Arts............................2
CUL 211 Menu Planning.................................................3
CUL 213 World Cuisine.................................................6
CUL 215 Garde Manger..................................................4
CUL 217 Dining Room and Kitchen Management ......3
CUL 218 Advanced Baking............................................4
CUL 295 Contemporary Service and Cuisine...............12

Note: Admission to the Culinary Arts program requires COMPASS test scores of Writing 70, Reading 82 or co-requisite of ENG 111 + 11, and Pre-Algebra 21.

Program Requirements  72-73

Certificate of Achievement (Level III)  NMC Code 029

Certificate Requirements  Credits: 53
CUL 101 Today’s Hospitality Industry ......................3
CUL 110 Safety and Sanitation..................................2
CUL 111 Professional Cookery..................................6
CUL 118 Intro to Baking.............................................4
CUL 121 Purchasing...................................................2
CUL 190 Culinary Internship........................................2
CUL 210 Nutrition for Culinary Arts...........................2
CUL 211 Menu Planning.............................................3
CUL 213 World Cuisine..............................................6
CUL 215 Garde Manger..............................................4
CUL 217 Kitchen and Dining Room Management ......3
CUL 218 Advanced Baking..........................................4
CUL 295 Contemporary Service and Cuisine..............12

Note: Admission to the Culinary Arts program requires COMPASS test scores of Writing 70, Reading 82 or co-requisite of ENG 111 + 11, and Pre-Algebra 21.
Customer Energy Specialist

Certificate of Achievement (Level III)  NMC Code 023

Program includes customer contact in providing and designing services for gas and electricity, knowledge of construction processes and business procedures, and use of computer systems for Computer Aided Design and data retrieval. Sponsored by Consumers Energy, students may apply for a paid internship with Consumers Energy, while completing business, technical, and communications courses. Information: (231) 995-1159.

Certificate Requirements  Credits: 48
ACC 121 Accounting Principles I ......................... 4
BUS 101 Introduction to Business ..................... 3
BUS 150 Interpersonal Relations ....................... 2
BUS 156 Essentials of Customer Relations ........ 1
BUS 261 Business Law .................................. 3
CIT 100 Computers in Business-An Intro .......... 3
DD 120 Computer Aided Drafting (AutoCAD) .... 2
DD 130 Architectural Drafting I (AutoCAD) ...... 2
EET 103 Electrical Studies I ......................... 3
EET 104 Electrical Studies II ......................... 3
ENG 111 English Composition ....................... 3
ENG 220 Technical Writing ......................... 3
MKT 201 Principles of Marketing .................... 4
MTH 111 Intermediate Algebra ...................... 4
PHY 105 Physics of the World Around Us ........ 4

Directed Electives  4
CIT 128 Microsoft Excel Level I ....................... 2
EET 221 Industrial Controls .......................... 3
EET 232 Programmable Logic Controllers .......... 3
MGT 241 Principles of Management ................ 3
MGT 251 Human Resources Management .......... 3

*May substitute Electrical Distribution Design courses offered by Consumers Energy.

Dental Assistant

Associate in Applied Science Degree  NMC Code 300

Dental Assistants are members of a highly qualified health team whose varied duties require knowledge of the basic dental sciences, proficiency in laboratory and clinical skills, and practical experience in meeting patient needs. Both the associate degree and certificate programs are accredited by the American Dental Association (ADA) and approved by the Michigan Board of Dentistry.

Few jobs offer the diversity and flexibility found in Dental Assisting. While most dental assistants work as chairside or business assistants in general or specialty dental practices such as orthodontics or oral surgery, other career paths include the following: lab technicians; sales representatives in dental supply companies; and as teachers in vocational or college dental auxiliary programs. It is suggested that students begin this program in fall semester. However, students wanting to begin spring, summer or a part-time program should contact the program director for academic advising. Students must be admitted to both the college and the Dental Assistant Program.

Program admission requires a 2.0 minimum GPA on high school or college transcript, or pass GED.

General Education Requirements  Credits: 22-24
Communications: ENG 111 and ENG 112 ............... 6-8
Humanities: Any Group 1 course ..................... 3
Mathematics: Placement into MTH 111 or higher, or completion of MTH 23* ......................... (4)
Science: BIO 106 ........................................ 4
Social Science: PSY 101 ............................... 3
Electives: Group 1 or 2 courses ...................... 4-8

*These credits do not count toward degree requirements.

Occupational Specialty Requirements  40.5-42.5
BUS 150 Interpersonal Relations  or
COM 111 Public Speaking .............................. 2-4
HAH 120 Infection Control ............................ 2
HDA 101 Introduction to Dentistry .................. 2
HDA 112 Dental Materials ........................... 2
HDA 113 Dental Materials Lab ..................... 1
HDA 120 Dental Anatomy ......................... 3
HDA 140 Oral Pathology/Pharmacology .......... 2
HDA 150 Dental Office Management ............... 2
HDA 160 Dental Emergencies ....................... 1
HDA 170 Preventive Dentistry ....................... 2
HDA 240 Chairside Procedures .................... 5
HDA 241 Chairside Procedures Lab ................. 2
HDA 242 Dental Radiography ....................... 2
HDA 243 Dental Radiography Lab ............... 1.5
HDA 251 Dental Assistant Internship I ............ 4
HDA 252 Dental Assistant Internship II ........... 4
HDA 282 CDA/RDA Written Exam Prep ............ 2
HDA 286 RDA Clinical Exam Prep ................. 1

Note: A 2.0 grade or higher is required in all HDA and HAH courses.

Program Requirements  64
Dental Assistant
Certificate of Achievement  NMC Code 070

The following coursework may be taken in order to qualify for the Certificate of Achievement in Dental Assisting. Many of NMC’s dental assistant students enroll in the certificate program following either a part- or full-time schedule. Completion of the program qualifies students for the state board exam and after passing the exam, they may practice as Registered Dental Assistants. In addition, program completers are eligible for the National Certification exam which is recognized nationwide. While the associate degree is not required for either of these exams, the majority of students complete the associate degree after completion of the certificate. For additional information on the Dental Assistant program please see the previous listing for the Associate in Applied Science for Dental Assistant.

Placement Requirements (to complete certificate)
Mathematics: Placement into MTH 111 or higher, or successful completion of MTH 23*  
Communications: Placement into ENG 111, or completion of ENG 99* or ENG 108  
* These credits do not count toward degree requirements.

Certificate of Achievement  40.5-42.5
BUS 150 Interpersonal Relations or  
COM 111 Public Speaking.........................2-4  
HAH 120 Infection Control ................................2  
HDA 101 Introduction to Dentistry........................2  
HDA 112 Dental Materials ................................2  
HDA 113 Dental Materials Lab............................1  
HDA 120 Dental Anatomy..................................3  
HDA 140 Oral Pathology/Pharmacology.....................2  
HDA 150 Dental Office Management .....................2  
HDA 160 Dental Emergencies............................1  
HDA 170 Preventive Dentistry............................2  
HDA 240 Chairside Procedures.............................5  
HDA 241 Chairside Procedures Lab........................2  
HDA 242 Dental Radiography.............................2  
HDA 243 Dental Radiography Lab........................1.5  
HDA 251 Dental Assistant Internship I....................4  
HDA 252 Dental Assistant Internship II....................4  
HDA 282 CDA/RDA Written Exam Prep .....................2  
HDA 286 RDA Clinical Exam Prep ................................1  

Note: A 2.0 grade or higher is required in all HDA and HAH courses.

Electronics Technology
Certificate of Achievement  NMC Code 070

The Electronics Technology courses prepare students for employment as an electronic technician. These four courses cover many of the responsibilities of an electronic technician in industry. Typical job responsibilities include construction, installation, operation, testing and repair of a variety of electrical equipment. Also covered are applications in manufacturing equipment and troubleshooting. Students develop skills through laboratory exercises representing an industrial setting.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 103</td>
<td>Electrical Studies I</td>
<td>3</td>
</tr>
<tr>
<td>EET 104</td>
<td>Electrical Studies II</td>
<td>3</td>
</tr>
<tr>
<td>EET 221</td>
<td>Industrial Controls</td>
<td>3</td>
</tr>
<tr>
<td>EET 232</td>
<td>Programmable Logic Controllers</td>
<td>3</td>
</tr>
</tbody>
</table>

Entrepreneurship Certificate
Certificate of Achievement (Level I)  NMC Code 051

The Entrepreneurship Certificates help students manage and market a business and take an entrepreneurial perspective of business management. They offer an entrepreneur tool set of business knowledge and practices needed for competing in today's global marketplace. These certificate courses apply to the course requirements for the Entrepreneurship Concentration of the Business Administration AAS degree.

Certificate Requirements  Credits: 19
ACC 121 Accounting Principles I.....................4  
BUS 101 Introduction to Business .....................3  
BUS 156 Essentials of Customer Service...............1  
BUS 158 Computerized Accounting Systems.............2  
MGT 245 Principles of Entrepreneurship..............3  
MGT 255 Small Business Management ..................3  
MKT 201 Principles of Marketing ......................3  

Entrepreneurship Certificate
Certificate of Achievement (Level II)  NMC Code 052

Level I Certificate Requirements  Credits: 19
Certificate Requirements  12
BUS 105 Business Math..................................3  
BUS 261 Business Law I................................3  
BUS 295 Entrepreneurship Internship..................3  
MKT 210 Principles of Selling ........................3  

Required Elective  Any one of the following:
BUS 150 Interpersonal Relations.......................2  
BUS 262 Business Law II................................3  
CIT 233 Project Management............................3  
MGT 241 Principles of Management....................3  
MGT 251 Human Resource Management..................3  
MKT 241 Principles of Advertising....................3  

Total Credits for Level II  33-34

www.nmc.edu | 85
Insurance Certificate

Certificate of Achievement (Level I)  NMC Code 055

Today, many of the best jobs in finance are nowhere near Wall Street; 2.5 million Americans work in the trillion-dollar insurance industry. Insurance jobs include assisting companies and individuals in guarding themselves against loss. Those in the insurance business can expect a stimulating, lucrative environment. As an insurance professional, you will guide customers in identifying the type and level of insurance necessary, and help them purchase the correct policy. Positions in an Insurance Agency include sales representative, underwriter, customer service representative, asset manager, and actuaries.

Level I Certificate Requirements  Credits: 17
ACC 121 Accounting Principles I ...........................................4
BUS 101 Introduction to Business ........................................3
BUS 111 Personal Insurance .........................................................3
CIT 100 Computers in Business-An Introduction ..................3
ENG 111 English Composition ..................................................4

Total Credits for Level I 33

Insurance Certificate

Certificate of Achievement (Level II)  NMC Code 056

Prerequisites: Completion of all courses listed in the Insurance Certificate Level I (17 credits)

Level II Certificate Requirements  Credits: 17
Level II Certificate Requirements  Credits: 16
ACC 121 Accounting Principles II .........................................4
BUS 105 Business Math ...................................................... 3
BUS 112 Life and Health Insurance ........................................3
BUS 231 Professional Communications ................................3
BUS 261 Business Law ..........................................................3

Total Credits for Level II 33

Insurance Certificate

Certificate of Achievement (Level III)  NMC Code 057

Prerequisites: Completion of all courses listed in the Insurance Certificate Levels I and II (33 credits)

Level I Certificate Requirements  Credits: 17
Level I Certificate Requirements  Credits: 16
Level II Certificate Requirements  Credits: 16
BUS 156 Essentials of Customer Service ......................... 1
ECO 201 Principles of Macroeconomics ................................3
MGT 241 Principles of Management ..................................3
BUS 113 Commercial Insurance ........................................3
MKT 201 Principles of Marketing .......................................3
PHL 202 Contemporary Ethical Dilemmas or PHL 201 Ethics ........................................3

Total Credits for Level III 49

Law Enforcement

Associate in Applied Science Degree  NMC Code 352

Graduates of this program are eligible to take the state law enforcement officer examination. Students who anticipate transferring to a four-year college or university need to see an NMC counselor during their first semester, as some courses may be acceptable for transfer credit. Students may enroll in the Law Enforcement Preservice Police Academy in the programs second year, or upon completing first year requirements or with a college degree. Completion of the Police Academy (LWE courses) must occur within two semesters, beginning fall semester and completed the following spring semester. A minimum grade of 2.0 must be achieved in each LWE course, satisfying prerequisites for licensing and qualifying the student to take the state examination to be hired by a law enforcement agency, which activates the license. The Police Academy is approved and regulated by the Michigan Commission on Law Enforcement Standards (MCOLES).

It is mandatory that students meet with the Law Enforcement Coordinator a minimum of four weeks prior to beginning LWE courses to register with MCOLES. Students must pass MCOLES reading/writing and physical agility tests prior to starting the LWE courses. Call (231) 995-1283 with questions and visit www.michigan.gov/mcoles for online registration.

General Education Requirements  Credits: 19-21
Communications: ENG 111 and ENG 112 6-8
Humanities: PHL 201 or PHL 202 ........................................ 3
Mathematics: Placement into MTH 111 or higher, or completion of MTH 23* ....................................................... (4)
Science: Any Group 1 course with lab ................................4
Social Sciences: PLS 101 or PLS 132 ..................................3
Additional Core Course: PSE 101 .........................................3
* These credits do not count toward degree requirements.

Occupational Specialty Requirements  46
CJ 101 Introduction to Criminal Justice ......................... 4
HAH 200 Emergency Assessment and Intervention ..........3
LWE 102 Police Operations ............................................. 4
LWE 210 Cultural Awareness/Diversity ..........................2
LWE 212 Criminal Investigation ....................................3
LWE 214 Firearms ..........................................................4
LWE 215 Defensive Driving ............................................. 3
LWE 216 Traffic Enforcement and Investigation ............3
LWE 218 Physical Training/Wellness ...............................4
LWE 225 Defensive Tactics .......................................... 4
LWE 226 Michigan Criminal Law ..................................3
LWE 227 Criminal Procedures .............................. 3
PSY 250 Abnormal Psychology or
SOC 231 Deviance and Criminal Behavior ..................3
SOC 101 Introduction to Sociology ................................3

Recommended Courses:
LWE 195* Police Practicum .............................................4
LWE 228** Police Radar/PBT Operation .........................3
* Required for students that have not experienced the police field.
**Recommended for job placement.

Program Requirements 65-67
**Legal Assistant**

**Associate in Applied Science Degree**

NMC Code 353

Upon completion of this program, the legal assistant will be qualified to do many law-related tasks under the supervision of an attorney, including researching the law, preparing drafts of legal documents, and interviewing clients. The degree also assists the graduate looking for a position in law-related areas such as government, insurance, or real estate.

The Legal Assistant Program’s outcomes include the development of an understanding of the U.S. legal system and of the major areas of substantive and procedural law, the development of an understanding of the role of the legal assistant within a law office and of the ethical responsibilities of attorneys and legal assistants, and the development of critical thinking, problem solving and communication skills. Students should contact the program director for academic advising. This program is approved by the American Bar Association.

Subject to the review and approval of the program director, students may transfer a maximum of 12 credits with a 2.0 (C) grade or higher in legal specialty (PAR) courses from another institution toward a legal assisting degree. An additional policy is that at least 24 credits must be through NMC courses in order for the student to receive an NMC degree.

**General Education Requirements**

**Credits: 18**

- Communications: ENG 111 and ENG 112 - 6-8
- Humanities: PHIL 105 - 3
- Mathematics: Placement into MTH 111 or higher, or completion of MTH 23* - 4
- Science: Any Group 1 course with a lab - 4
- Social Sciences: PLS 101 or PLS 132 - 3
- Additional General Education Course - 0-2

*These credits do not count toward degree requirements.

**Occupational Specialty Requirements**

**47**

- ACC 121 Accounting Principles I - 4
- BUS 130 Mechanics of Business Writing - 3
- BUS 231 Professional Communications - 3
- BUS 261 Business Law I - 3
- BUS 262 Business Law II - 3
- CIT 100 Computers in Business-An Intro - 3
- CJ 211 Criminal Law or
- CJ 242 Evidence and Criminal Procedures - 3
- PAR 101 Intro to Legal Assisting - 3
- PAR 102 Legal Research and Writing I - 3
- PAR 103 Legal Research and Writing II - 3
- PAR 106 Litigation - 2
- PAR 112 Torts - 2
- PAR 210 Probate - 2
- PAR 211 Real Estate Law - 2
- PAR 220 Family Law - 2
- PAR 221 Law Office Management - 2
- PAR 222 Legal Drafting - 2
- PAR 230 Legal Assistant Internship - 2

* A 2.0 GPA in PAR courses is required for this internship.

**Machine Tool**

**Certificate of Achievement (Level II)**

NMC Code 008

The courses required for the Machine Tool Certificate offer the student the opportunity to acquire the knowledge and develop the fundamental skills for a career in a variety of skilled occupations. Precision machining skills are the common elements in the occupations of tool maker, mold maker, die maker, machine builder, and CNC programmer and operator. Knowledge of machining operations is also a key element in the development of mechanical drafters and designers.

The program includes courses in machining, related mathematics, printreading, metallurgy, computer aided drafting (CAD), and computer aided machine programming (CNC and CAM). The machining courses include classroom work to support lab assignments on the lathe, mill, and grinders. This series of courses may be used to prepare the student for entry level machining positions or to upgrade the skills of someone with previous manufacturing experience. The courses may also be included in an employer’s training plan for apprentices. Machining lab hours and most courses are available for day time and evening scheduling. The courses may also be applied to an AAS degree in Manufacturing Technology.

**Certificate Requirements**

**Credits: 36**

- DD 101 Print Reading and Sketching, Mfg - 3
- DD 110 Basic Metallurgy - 3
- DD 120 Computer Aided Drafting (AutoCAD) - 2
- DD 125 Mechanical Drafting - 2
- DD 150 Detail Drafting - 4
- DD 160 Tolerancing and GD&T - 3
- MFG 111 Math for Manufacturing - 2
- MFG 113 Machining I - 3
- MFG 114 Machining II - 3
- MFG 211 CNC Programming - 3
- MFG 212 Computer Aided Machining - 2
- MFG 215 Machining III, Lathe - 3
- MFG 216 Machining IV, Mill & Grind - 3

To apply, use the three-digit NMC Code on your admissions application.
Manufacturing Technology

Associate in Applied Science Degree  NMC Code 584

The Manufacturing Technology program is designed to provide a multi-disciplined technical background in fields for which NMC does not offer a specific degree program. For instance, students interested in pursuing careers in Machine Tool or Welding may enroll in the Manufacturing Technology program and design a model schedule that emphasizes their major area of interest. The program has the flexibility to match the student's interest with the skills necessary for job entry.

Students, with assistance from a counselor, advisor or instructor will select a major area of technical emphasis. These technical courses plus supporting courses from other disciplines comprise the Manufacturing Technology degree requirements.

Each student’s proposed Manufacturing Technology program must be approved by a committee consisting of the appropriate Department Head, the Academic Chair, and the Registrar. The following guidelines apply to the Associate in Applied Science Degree.

General Education Requirements  Credits: 17-18
Communications: ENG 111 and either
- ENG 112 or ENG 220* .................................................. 6-8
Humanities: Any Group 1 course ........................................ 3
Science: Any Group 1 course with a lab .............................. 4
Social Sciences: Any Group 1 course ................................. 3
Mathematics: Placement into MTH 111 or
higher, or completion of MTH 23 .......................... (4)
* Students intending to transfer to another college or university should take ENG 112.

Occupational Specialty Requirements  39
Electives  7-8
Choose any courses from Group 1 and/or Group 2.

Program Requirements  64

Maritime Technology

Great Lakes Maritime Academy

Associate in Applied Science Degree  NMC Code 550 / 551

The Great Lakes Maritime Academy is more than just a college experience. As Michigan's State Maritime Academy, our college educates and trains the finest Deck and Engineering Officers available to the commercial shipping industry.

As you learn more about us, you will discover a professional environment based on pride and tradition. The Academy prepares future merchant marine officers/business professionals for the challenge of operating ships of unlimited tonnage.

Our training ship, State of Michigan, is utilized daily as a floating classroom and hands on learning environment. We set sail with our ship at various times throughout the academic year to reinforce the skills taught shore side. As cadets progress through the Academy, they learn our industry first hand by completing essential sea time aboard commercial ships of the Great Lakes and Oceans.

The Academy enjoys a unique relationship with our partner institution, Ferris State University. While classes are held in Traverse City, cadets simultaneously earn their maritime credentials and a Bachelor's Degree in Business Administration. It has long been apparent this combination enables graduates to better compete for management level positions in any area of employment. We also offer a core maritime curriculum for those who enter the Academy with a Bachelor's Degree. Upon completion of all requirements, cadets are prepared to write the U.S. Coast Guard examination for licensing as Third Mate Great Lakes and Oceans Unlimited Tonnage and First Class Great Lakes Pilot (Deck Officer), or Third Assistant Engineer, Steam and Motor Vessels of any Horsepower (Engineering Officer). Graduates are fully compliant with STCW '95 (Standards of Training, Certification and Watchkeeping).

Great Lakes Maritime Academy is proud of the quality training we have provided since 1969. Curricula range from seamanship, navigation and piloting to steam and diesel engineering together with 276 days of commercial sea time. Our alumni sail with the fleets of the Great Lakes and Oceans with many having reached the pinnacle of their professions as Masters and Chief Engineers. With 100% employment and exceptional salaries upon graduation, the time is now to consider a career as a professional mariner. The Admissions Office is open weekdays from 8:30 am to 5:00 pm. Please visit www.nmc.edu/maritime for additional information.

This program is approved by the U.S. Maritime Administration, the U.S. Coast Guard, and the Michigan Department of Education. A new class begins each year in mid August (Fall semester).
Admission Requirements
Admission to the Great Lakes Maritime Academy requires candidates meet the following:

1. Be at least 17 years of age with a high school diploma or GED.
2. United States Citizen or possess an Alien Registration Card (Green Card).
3. Academic placement at Freshman English and Intermediate College Algebra level determined by minimum ACT score of 20, SAT score of 1440, transferrable college credits or COMPASS testing.
4. United States Coast Guard physical, vision and moral character standards as established by federal law and all requirements for licensing as a United States Merchant Marine Officer.

Great Lakes Maritime Academy requires applicants to go to www.nmc.edu/maritime and submit an online application. The application opens a Ferris State University window. Select “Great Lakes Maritime Academy”, complete and submit. An application checklist is provided. If you have questions, please call the Maritime Admissions Office at (231) 995-1200.

General Program Requirements
In addition to Northwestern Michigan College/Ferris State University rules and regulations, Maritime cadets comply with the rules and regulations specified in the booklet, “Maritime Cadet Rules and Regulations.” This is a federal requirement.

Department of Naval Science
The Department of Naval Science is staffed by active duty Navy personnel. The Department offers training designed to acquaint the cadet with the mutual dependence of the Navy and Merchant Marine in accomplishing their common objectives. This instruction is provided through two courses, MNS 100 and MNS 200.

Graduation Requirements
In addition to NMC graduation requirements, Academy cadets must:

1. Successfully complete the prescribed Academy program.
2. Pass the U.S. Coast Guard license exam in the objective pursued.
3. Achieve a 2.0 (76%) grade or better in all courses.
4. Complete a minimum of 24 months at the Great Lakes Maritime Academy, as mandated by federal law.

Curriculum
The Great Lakes Maritime Academy and NMC offer two four-year programs of study:

- Maritime Technology (Deck Officer) - Associate’s Degree;
- Business Administration - Bachelor’s Degree
- Marine Engineering Technology (Engineering Officer) - Associate’s Degree; Business Administration - Bachelor’s Degree

Each program provides the cadet with a background in business administration, mathematics, physical science, humanities and social studies, in addition to the required maritime subjects.

Federal regulations require that each cadet obtain up to 276 sailing days of practical training as a cadet observer aboard commercial ships. Sea time is arranged by the Academy and spread over the four-year program. In addition to shipboard duties, the cadets are required to complete written assignments, sea projects, for evaluation and grading. Great Lakes Maritime reserves the right to revise the program in accord with industry needs and government agency requirements.

The following program requirements are for a high school graduate or a person without transfer credits from another institution.
## Maritime - Deck Officer
### Great Lakes Maritime Academy
#### Associate in Applied Science Degree
**w/Bachelor of Science - Business Administration through Ferris State University**

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Communications</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENG 220</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>and Communications</td>
<td>3</td>
</tr>
<tr>
<td>Humanities: Any Group 1 course/FSU</td>
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<tr>
<td>Mathematics: MTH 141 or MTH 132 (FSU)</td>
<td>3-5</td>
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<tr>
<td>Science: PHY 105</td>
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<tr>
<td>Social Science: ECO 201</td>
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**Maritime Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MDK 100</td>
<td>Survival at Sea</td>
<td>1</td>
</tr>
<tr>
<td>MDK 104</td>
<td>Rigging and Ship Maintenance Lab</td>
<td>1</td>
</tr>
<tr>
<td>MDK 106</td>
<td>Watchstanding I</td>
<td>1</td>
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<tr>
<td>MDK 111</td>
<td>Marine Communications</td>
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</tr>
<tr>
<td>MDK 112</td>
<td>Rules of the Nautical Road</td>
<td>2</td>
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<tr>
<td>MDK 121</td>
<td>Navigation I</td>
<td>3</td>
</tr>
<tr>
<td>MDK 122</td>
<td>Navigation I Lab</td>
<td>1</td>
</tr>
<tr>
<td>MDK 149</td>
<td>Damage Control &amp; Safety</td>
<td>2</td>
</tr>
<tr>
<td>MDK 200</td>
<td>Ships Business &amp; Labor Relations</td>
<td>3</td>
</tr>
<tr>
<td>MDK 204</td>
<td>Marine Supervisory Lab</td>
<td>1</td>
</tr>
<tr>
<td>MDK 206</td>
<td>Watchstanding II</td>
<td>1</td>
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<tr>
<td>MDK 210</td>
<td>Sea Project</td>
<td>6</td>
</tr>
<tr>
<td>MDK 221</td>
<td>Lakes Piloting</td>
<td>2</td>
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<tr>
<td>MDK 222</td>
<td>River Piloting</td>
<td>3</td>
</tr>
<tr>
<td>MDK 224</td>
<td>Navigation III</td>
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<tr>
<td>MDK 231</td>
<td>Electronic Navigation</td>
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<tr>
<td>MDK 232</td>
<td>Electronic Navigation Lab</td>
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<tr>
<td>MDK 233</td>
<td>Automatic Radar Plotting Aids</td>
<td>1</td>
</tr>
<tr>
<td>MDK 241</td>
<td>Ship Construction</td>
<td>2</td>
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<tr>
<td>MDK 242</td>
<td>Ship Stability</td>
<td>3</td>
</tr>
<tr>
<td>MDK 244</td>
<td>Dry Cargo Stowage</td>
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<tr>
<td>MDK 245</td>
<td>Liquid Cargo Stowage</td>
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<tr>
<td>MDK 311</td>
<td>Sea Project Deck</td>
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<tr>
<td>MDK 312</td>
<td>Sea Project Deck</td>
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<tr>
<td>MDK 330</td>
<td>STCW Elementary First Aid</td>
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<tr>
<td>MDK 344</td>
<td>Cargo Systems</td>
<td>2</td>
</tr>
<tr>
<td>MDK 346</td>
<td>Bridge Team Management</td>
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</tr>
<tr>
<td>MDK 348</td>
<td>Pilot/Mate License Prep</td>
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</tr>
<tr>
<td>MGT 241</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 201</td>
<td>Principles of Marketing</td>
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</tr>
<tr>
<td>MNG 100</td>
<td>Introduction to Marine Engineering</td>
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</tr>
<tr>
<td>MNG 105</td>
<td>Shipboard Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MNS 100</td>
<td>Naval Science I</td>
<td>2</td>
</tr>
<tr>
<td>MTH 131</td>
<td>Intro to Probability &amp; Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Ferris State University Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BLAW 301</td>
<td>Legal Environment of Business</td>
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</tr>
<tr>
<td>COMM 221</td>
<td>Small Group Decision Making</td>
<td>3</td>
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<tr>
<td>ENGL 325</td>
<td>Advanced Business Writing</td>
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<tr>
<td>BUSN 499</td>
<td>Integrating Experience</td>
<td>3</td>
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<tr>
<td>PLSC 331</td>
<td>Comparative World Governments</td>
<td>3</td>
</tr>
<tr>
<td>INTB 310</td>
<td>International Business Systems</td>
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</tr>
<tr>
<td>INTB 320</td>
<td>International Logistics</td>
<td>3</td>
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<tr>
<td>INTB 335</td>
<td>Cross-Cultural Business</td>
<td>3</td>
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<tr>
<td>MGMT 350</td>
<td>Decision Making Tools</td>
<td>3</td>
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<tr>
<td>Ferris Cultural Enrichment Elective</td>
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</tr>
</tbody>
</table>

*See Great Lakes Maritime Academy web site for Ferris course descriptions.*

## Maritime - Engineering Officer
### Great Lakes Maritime Academy
#### Associate in Applied Science Degree
**w/Bachelor of Science - Business Administration through Ferris State University**

**General Education Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>Communications</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>ENG 220</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 111</td>
<td>Meteorology &amp; Climatology</td>
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<tr>
<td>MDK 100</td>
<td>Survival at Sea</td>
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</tr>
<tr>
<td>MDK 149</td>
<td>Damage Control &amp; Safety</td>
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<tr>
<td>MDK 241</td>
<td>Ship Construction</td>
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<tr>
<td>MDK 250</td>
<td>Stability for the Engineer</td>
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<tr>
<td>MDK 330</td>
<td>STCW Elementary First Aid</td>
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<tr>
<td>MGT 241</td>
<td>Principles of Management</td>
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<tr>
<td>MGT 251</td>
<td>Human Resources Management</td>
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<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
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<tr>
<td>MNG 100</td>
<td>Introduction to Marine Engineering</td>
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</tr>
<tr>
<td>MNG 104</td>
<td>Engine Systems Graphics</td>
<td>2</td>
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<tr>
<td>MNG 105</td>
<td>Shipboard Information Systems</td>
<td>3</td>
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<tr>
<td>MNG 110</td>
<td>Engineering Mechanics</td>
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<tr>
<td>MNG 175</td>
<td>Refrigeration</td>
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<tr>
<td>MDK 210</td>
<td>Diesel Engineering</td>
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<tr>
<td>MNG 221</td>
<td>Marine Boilers</td>
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<td>MNG 222</td>
<td>Marine Turbines</td>
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<tr>
<td>MNG 223</td>
<td>Steam Lab</td>
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<tr>
<td>MNG 234</td>
<td>Electronics Fundamentals</td>
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<tr>
<td>MNG 235</td>
<td>Electric Machines and Controls</td>
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<td>MNG 236</td>
<td>Electric Machines and Controls Lab</td>
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<td>MNG 250</td>
<td>Unloading Systems</td>
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<tr>
<td>MNG 315</td>
<td>Engineering Sea Project I</td>
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<td>MNG 316</td>
<td>Engineering Sea Project II</td>
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<tr>
<td>MNG 355</td>
<td>Watchstanding</td>
<td>2</td>
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<tr>
<td>MNG 366</td>
<td>Engine Room Business</td>
<td>2</td>
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<tr>
<td>MNG 396</td>
<td>License Preparation Engine</td>
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<tr>
<td>MNS 100</td>
<td>Naval Science</td>
<td>2</td>
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<tr>
<td>MTH 131</td>
<td>Intro to Probability &amp; Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 122</td>
<td>General Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>
Great Lakes Maritime Academy

Program Information

The Power Plant Facilities Operator Program is designed to prepare individuals for the maintenance and power production industries such as power plants, hospitals, industrial plants, and manufacturing plants. Operators in such industries read, interpret and adjust meters and gauges to make sure plant equipment and processes are working properly. Some operate chemical-feeding devices, take samples of the water or liquid waste, perform chemical and biological laboratory analysis and adjust the amount of chemicals such as chlorine in the water. Some use a variety of instruments to sample and measure water quality and common hand and power tools to make repairs. Operators also make minor repairs to valves, pumps and other equipment. As facilities become more sophisticated and industry demands more from those individuals who maintain and operate these physical plants, there is a need for intense technical training for these positions. Students at the Great Lakes Maritime Academy obtain these goals through coursework in mathematics, science and occupational courses. They also have hands-on experience through labs and internships for practical training that is beneficial to the application and understanding of the career path they have chosen.

General Education Requirements Credits: 22-24
Communications: ENG 111 and ENG 220 .................7
Humanities: Any Group 1 Course .........................3
Mathematics: Completion of MTH 121 and
MTH 122 or Placement into MTH 141 ...............5-7
Science: CHM 101 or PHY 105 .........................4
Social Science: Any Group 1 Course ..................3

To apply, use the three-digit NMC Code on your admissions application.

Program Requirements 149

Maritime - Power Plant Facilities Operator

Associate in Applied Science Degree NMC Code 554

Occupational Specialty Requirements 53
MGT 241 Principles of Management ....................3
MNG 100 Intro to Engineering ..........................1
MNG 104 Engine System Graphics .....................2
MNG 105 Information Systems .........................3
MNG 110 Engineering Mechanics .......................3
MNG 175 Refrigeration ..................................3
MNG 210 Diesel Engineering .........................7
MNG 220 Steam Engineering ............................7
MNG 234 Electronic Fundamentals ..................4
MNG 235 Electric Machines and Controls ..........4
MNG 236 Electric Mach & Contr Lab ...............2
MNG 250 Unloading Systems ..........................3
Internship to be developed ..........................5
Courses to be developed ................................3
Elective Credits ........................................3

Recommended Elective 3
MGT 251 Human Resource Management .........3

Ferris State University Requirements* 4
Maching ..............................................2
Welding .............................................2
* As guest student.

Program Requirements 68-70
Nursing - ADN

Associate Degree in Nursing

NMC Code 302

Nursing Students admitted to the nursing program prior to fall 2009 must follow the catalog requirements in effect the year they began unless they are returning as re-admitted students.

The NMC Associate Degree in Nursing (ADN) offers students the advantage of college-level academic and professional instruction in the classroom and clinical areas, and the preparation needed for employment after graduation. The associate degree program is a two-year course of study that begins each fall and spring semesters. All nursing courses in the ADN program must be completed within five years.

Student clinical experiences may include assignments at Munson Medical Center, and a variety of other agencies. These affiliated facilities have the right to accept or reject a student. This action could result in a student being delayed or unable to complete the nursing program. This decision may be made just prior to the clinical rotation.

The program is approved by the Michigan Board of Nursing. Graduates are eligible to apply for the State Board Examination (NCLEX-RN) for licensing as a registered nurse.

Admission Requirements

Enrollment in any Nursing (HNR) course requires admission to the nursing program OR approval of the nursing department director. HNR 100 and 108 may be taken ahead of program admission if course prerequisites are met. Consideration for admission is on a competitive basis and requires satisfactory completion of program prerequisites. Space in the nursing program is limited. Completion of prerequisites does not guarantee admission to the nursing program. Should qualified applicants exceed space available, competitive admission criteria may apply. Completed applications must be submitted to the Admissions Office.

The following are required for application:

1. A 2.5 College GPA. A Transferred College GPA may be computed on Nursing Program prerequisite courses alone.

2. A 2.0 or above in each of the following prerequisite courses and/or demonstrated competency or equivalent college course transfer (with minimum GPA of 2.5):
   - English Composition (ENG 111)
   - Introduction to Psychology (PSY 101)
   - Human Anatomy & Physiology I (BIO 227)
   - Not older than 5 years.
   - CHM 101 or equivalent college chemistry course at 2.0 or better within the last 10 years. Students with a year of high school chemistry or college chemistry older than 10 years may waive the CHM 101 requirement by passing the Chemistry Department competency examination.

3. COMPASS test scores:
   - Reading-82 or above,
   - Writing-70 or above,
   - Math-66 or above in Algebra
   - Compass Students must place into MTH 121 - College Algebra. If not, students must take MTH 111 - Intermediate Algebra (or equivalent course work within past 5 years).

4. ACT Test Scores:
   - ACT of 24 in math
   - ACT of 19 in reading and writing, (or equivalent course work) within five years of program entry. Information
   - Recommended courses to take prior to Nursing Program Admission:
     - BIO 228 Anatomy and Physiology II- 2.5 GPA required.
     - BIO 240 Normal and Clinical Nutrition
     - HNR 100 and108 - GPA 2.0 required. Any HNR course failure counts as one program failure. Students are permitted only two program failures.

** See information below regarding Anatomy and Physiology transfer.

Upon admission, students must have a criminal background and DHS clearance completed. Certain criminal charges as stated in Public Acts 27, 28 and 29 of 2006, may deem a student ineligible for admission to the Nursing Program.

A physical examination and completion of Health Occupations Certificate of Health documenting good mental and physical health must be completed prior to clinical course work. The student must be able to perform the physical tasks required of a nurse. Current CPR certification must be documented by the start of the first clinical day, and maintained throughout the remainder of the program.

The board of nursing may deny a license for a previous felony conviction, previous treatment for drug or alcohol abuse or after finding the existence of one or more grounds for board action listed in 333.16221 of the Public Health Code, Act 368 of 1978.

Students are required to achieve and maintain a grade point average of 2.0 in their course of study with no less than a grade of 2.0 in each HNR course. Failure to meet these requirements may result in the student’s dismissal from the program until the requirements are met.

General Education Requirements

Communications: ENG 111 and ENG 112 .....................6-8
Humansities: PHL 202 ...........................................3
Mathematics: Placement into MTH 121 or higher, or completion of MTH 111* ..............................................(4)
Science: BIO 227, 228, 240** ........................................13
Social Sciences: PSY 101 ............................................3

* These credits do not count toward degree requirements.

** For an equivalent transfer of BIO 227 and BIO 228 from another institution, students must have completed a full year of Anatomy & Physiology, and one semester of Microbiology with a 2.5 or better within the last 5 years.
Occupational Specialty Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 122A</td>
<td>Computers and Internet Basics</td>
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</tr>
<tr>
<td>HAH 100C</td>
<td>Informatics Essentials</td>
<td>1</td>
</tr>
<tr>
<td>HNR 100</td>
<td>Introduction to Nursing</td>
<td>1</td>
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<tr>
<td>HNR 101</td>
<td>Fundamentals of Nursing-Lecture</td>
<td>4</td>
</tr>
<tr>
<td>HNR 102</td>
<td>Fundamentals of Nursing-Clinical</td>
<td>4</td>
</tr>
<tr>
<td>HNR 108</td>
<td>Pharmacology</td>
<td>3</td>
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<tr>
<td>HNR 125</td>
<td>Nursing Across the Lifespan-Lecture</td>
<td>5</td>
</tr>
<tr>
<td>HNR 126</td>
<td>Nursing Across the Lifespan-Clinical</td>
<td>5</td>
</tr>
<tr>
<td>HNR 241</td>
<td>Adv. Maternal Child Nursing-Lecture</td>
<td>3</td>
</tr>
<tr>
<td>HNR 242</td>
<td>Adv. Maternal Child Nursing-Clinical</td>
<td>3</td>
</tr>
<tr>
<td>HNR 243</td>
<td>Nrsg Mgmt of Complex Patients I-Lecture</td>
<td>3</td>
</tr>
<tr>
<td>HNR 244</td>
<td>Nrsg Mgmt of Complex Patients I-Clinical</td>
<td>4</td>
</tr>
<tr>
<td>HNR 251</td>
<td>Mental Health Nursing-Lecture</td>
<td>2</td>
</tr>
<tr>
<td>HNR 252</td>
<td>Mental Health Nursing-Clinical</td>
<td>1</td>
</tr>
<tr>
<td>HNR 261</td>
<td>Nrsg Mgmt of Complex Patients II-Lecture</td>
<td>3</td>
</tr>
</tbody>
</table>
| HNR 262 | Nrsg Mgmt of Complex Patients II-Clinical | 4         

**Note:** A 2.0 grade or higher is required in HAH 100C and all Nursing (HNR) courses. A minimum of 72 credits are required to receive the Associate Degree in Nursing.

Online Nursing Option

NMC offers an online alternative for students pursuing an Associate Degree in Nursing. The option begins each fall and spring semester and will include hands-on clinical and lab experiences in addition to online classes. Students must be available at times to take tests and exams at the college.

For more information, contact the Director of Nursing or the Health Occupations Office Manager at (231) 995-1235. Visit www.nmc.edu/healthoccupations for information about admissions, prerequisites and courses for the NMC nursing program or www.nmc.edu/flo for Online Nursing updates.

Nursing - ADN - Completion Program for Licensed Practical Nurses

**Associate Degree in Nursing**  
**NMC Code 302**

The ADN-Completion Program for Licensed Practical Nurses is designed to expand upon the previous education of the LPN. Upon completion of all non-nursing required course work, the LPN who has current experience in acute or extended care or who has graduated within the past five years can complete the nursing course work in two semesters. The technology and patient acuity in the agencies utilized for clinical course work have changed greatly in recent years. Recent experience in these settings is important to the success of students pursuing this course work.

Student clinical experiences may include assignments at Munson Medical Center and a variety of other agencies. The program is approved by the Michigan Board of Nursing. Graduates are eligible to apply for the State Board Examination (NCLEX-RN) for licensing as a registered nurse.

NMC utilizes hospital and non-hospital based clinical sites to meet the requirements for completion of the program. These affiliated facilities have the right to accept or reject a student. This action could result in a student being delayed or unable to complete the nursing program. This decision may be made just prior to the clinical rotation.

**Admission Requirements**

Enrollment in any Nursing (HNR) course requires admission to the nursing program and/or approval of the nursing department director. Consideration for admission is on a competitive basis and requires satisfactory completion of program prerequisites. Space in the program is limited. Completion of prerequisites does not guarantee admission to the nursing program. Should qualified applicants exceed space available, competitive admission criteria may apply. Completed applications must be submitted to the Admissions Office.

**The following are required for application:**

2. Graduation from an accredited Practical Nursing Program with evidence of an official transcript with an overall GPA of 2.0 or above. Applicants must have work experience in the field of nursing or clinical coursework within the last three (3) years. Applicants who do not meet the work experience criteria will be required to complete the first year nationally normed nursing exam with a minimum competency as identified by the testing service before progressing in the program. If this minimum competency is not achieved, HNR 126 will be required. Additional assessments may be used to determine course placement.
3. CHM 101 or equivalent college chemistry course at 2.0 or better within the last 10 years. Students with a year of high school chemistry or college chemistry older than 10 years may waive the CHM 101 requirement by passing the Chemistry Department competency examination.
4. COMPASS Test scores: Reading-82 or above, Writing-70 or above, Math-66 or above in Algebra (or equivalent course work) within five years of program entry. Students must place into MTH 112 - College Algebra. If not, students must take MTH 111 - Intermediate Algebra, or ACT of 19 for reading and writing, ACT of 24 for math.
5. Completion of all General Education Requirements, as identified on the following pages, with an overall GPA of 2.0 or above. In addition to the overall GPA requirement, a minimum of 2.5 or better in BIO 227 and BIO 228 (BIO 227 and 228 within five years of program entry), a min. grade of 2.0 is required in ENG 111 and PSY 101.

Upon admission, students must have a criminal background and DHS clearance completed. Certain criminal charges as stated in Public Acts 27, 28 and 29 of 2006, may deem a student ineligible for admission to the Nursing Program. A physical examination and completion of a Certificate of Health documenting good mental and physical health must be completed and submitted prior to clinical course work.
The student must be able to perform the physical tasks required of a nurse. Current CPR certification must be maintained throughout the program.

LPNs seeking admission to the ADN-Completion Program should schedule an appointment with the Nursing Department Director in order to complete an evaluation of previous course work and experience and prepare a plan of study. All nursing courses for the ADN program must be completed within five years.

The board of nursing may deny a license for a previous felony conviction, previous treatment for drug or alcohol abuse or after finding the existence of one or more grounds for board action listed in 333.16221 of the Public Health Code, Act 368 of 1978. Students are required to achieve and maintain a grade point average of 2.0 in their course of study with no less than a grade of 2.0 in each HNR course. Failure to meet these requirements will result in the student's suspension from the program until the requirements are met.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Credits: 25-27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications: ENG 111 and ENG 112 ............. 6-8</td>
</tr>
<tr>
<td>Humanities: PHL 202 .................................. 3</td>
</tr>
<tr>
<td>Mathematics: Compass Placement into MTH 121 or higher, or completion of MTH 111* ....................... (4)</td>
</tr>
<tr>
<td>Science: BIO 227, 228, 240** ............................. 13</td>
</tr>
<tr>
<td>Social Sciences: PSY 101 ................................. 3</td>
</tr>
</tbody>
</table>

* These credits do not count toward degree requirements.

** A 2.5 grade or higher is required in BIO 227 and 228. For an equivalent transfer of BIO 227 and BIO 228 from another institution, students must have completed a full year of Anatomy & Physiology, and one semester of microbiology with a 2.5 or better within the last 5 years.

**Nursing Specialty Requirements**

<table>
<thead>
<tr>
<th>Credits: 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level One Nursing Coursework .......................... 20</td>
</tr>
</tbody>
</table>

**Note:** Credit for the practical nursing level course work (HNR 100-145) must be established prior to admission to the program. At least 20 nursing credits must be established through NMC course completion or transfer equivalences.

<table>
<thead>
<tr>
<th>CIS 122A Computers and Internet Basics .................. 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAH 100C Informatics Essentials ........................ 1</td>
</tr>
<tr>
<td>HNR 200 LPN to ADN Transition ......................... 3</td>
</tr>
<tr>
<td>HNR 243 Nursing Management of Complex Patients I-Lecture .............................................. 3</td>
</tr>
<tr>
<td>HNR 244 Nursing Management of Complex Patients I-Clinical ............................................. 4</td>
</tr>
<tr>
<td>HNR 261 Nursing Management of Complex Patients II-Lecture ............................................. 3</td>
</tr>
<tr>
<td>HNR 262 Nursing Management of Complex Patients II-Clinical ............................................. 4</td>
</tr>
</tbody>
</table>

**Note:** A 2.0 grade or higher is required in HAH 100C and all Nursing (HNR) courses. A minimum of 72 credits are required to receive the Associate Degree in Nursing.

**Program Requirements**

<table>
<thead>
<tr>
<th>Credits: 70-72</th>
</tr>
</thead>
</table>

The Practical Nursing (PN) program is a course of study that qualifies the student to take the LPN licensure exam. All nursing courses must be completed within five years. The program prepares graduates to work in long-term and geriatric facilities, general hospitals, clinics, doctors' offices and in other patient care areas. The Licensed Practical Nurse always works under the supervision of a physician, registered nurse, or dentist. Student clinical experiences may include assignments at Grand Traverse Pavilions, Munson Medical Center, and other selected clinical agencies. These affiliated facilities have the right to accept or reject a student. This action could result in a student being delayed or unable to complete the nursing program. This decision may be made just prior to the clinical rotation. The program is approved by the Michigan Board of Nursing. Graduates of this program are eligible to apply for the State Board Examination (NCLEX-PN) for licensing as a Practical Nurse.

**Admission Requirements**

Enrollment in any Nursing (HNR) course requires admission to the nursing program OR approval of the Nursing Program Director. HNR 100 and 108 may be taken ahead of program admission if course prerequisites are met. Consideration for admission is on a competitive basis and requires satisfactory completion of all program prerequisites. Space in the program is limited. Completion of prerequisites does not guarantee admission to the Nursing Program.

Should qualified applicants exceed space available, competitive admission criteria may apply. Completed applications must be submitted to the College Admission Office.

**The following are required for application:**

1. A 2.0 College GPA for Nursing Program Prerequisite courses. A Transferred College GPA may be computed on Nursing Program prerequisite courses alone.

2. COMPASS test scores: Reading-82 or above, Writing-70 or above, Math-66 on Algebra (or equivalent coursework) within five years of program entry. Students must place into MTH 121 - College Algebra. If not, students must take MTH 111 - Intermediate Algebra, OR have an ACT score of 19 for reading and writing, and math ACT of 24.

3. Courses required for admission consideration.
   - CHM 101 competency or equivalent college chemistry course at a 2.0 or better within the past 10 years. Students with a year of high school chemistry or with college chemistry older than 10 years, may waive the CHM 101 requirement by passing the Chemistry Department competency exam.
   - BIO 227 - Anatomy and Physiology I - 2.5 GPA required. Must be taken within the last 5 years. If not taken within last 5 years, students may retake BIO 227 and BIO 228 or successfully complete a competency exam. For an equivalent transfer of BIO 227 and
BIO 228 from another institution, students must have completed a full year of Anatomy & Physiology, and one semester of Microbiology with a 2.5 or better within the last 5 years.

4. Courses recommended to be completed prior to starting the PN program.
   • BIO 228 - Anatomy & Physiology II - 2.5 GPA required.
   • BIO 240 Normal & Clinical Nutrition
   • HNR 100 and 108 - GPA 2.0 required.
   • Any HNR course failure counts as one program failure.
   • Students are permitted only two program failures.
   See a counselor or advisor for details.

Upon admission, students must have a criminal background and DHS clearance check completed. Certain criminal charges as stated in Public Acts 27, 28 and 29 of 2006, may deem a student ineligible for admission to the Nursing Program. A physical examination and completion of Health Occupations Certificate of Health documenting good mental and physical health must be completed prior to clinical course work.

Students must be able to perform the physical tasks required of a nurse. CPR certification must be documented by the start of the first clinical day, and maintained throughout the remainder of the program. The board of nursing may deny a license for a previous felony conviction, previous treatment for drug or alcohol abuse or after finding the existence of one or more grounds for board action listed in 333.16221 of the Public Health Code, Act 368 of 1978. Students are required to achieve and maintain a grade point average of 2.0 in their course of study with no less than a grade of 2.0 in each HNR course. Failure to meet these requirements will result in the student’s suspension from the program until the requirements are met.

Certificate Requirements Credits: 33

HNR 100 Introduction to Nursing.................................1
HNR 101 Fundamentals of Nursing-Lecture ....................4
HNR 102 Fundamentals of Nursing-Clinical ....................4
HNR 108 Pharmacology............................................1
HNR 125 Nursing Across the Lifespan-Lecture ...............5
HNR 126 Nursing Across the Lifespan-Clinical ...............5
HNR 145 Practical Nursing Role & Issues .....................1
CIT 122A Computer and Internet Basics I .....................1
HAH 100C Informatics Essentials..................................1

Note: A 2.0 grade or higher is required in HAH 100C and all Nursing (HNR) courses.

Plant Science
Associate in Applied Science Degree

Fruit Production............................................. NMC Code 581
Landscape & Nursery................................. NMC Code 582
Turfgrass Management............................. NMC Code 583

NMC and MSU offer a joint program that can lead to an Associate in Applied Science degree in the areas of Commercial Horticultural Operations, Landscape and Nursery, or Commercial Turfgrass Operations through NMC. Students dual enroll with NMC and MSU North at the University Center.

After completing a minimum of 48 hours in the program, a certificate is awarded from the MSU, Institute of Agricultural Technology. Upon meeting the program requirements for the ASA, student may transfer to the MSU East Lansing Campus as a junior to complete a Bachelor of Science degree. AAS Degree is awarded upon completion of MSU certificate and the following additional NMC courses. See your MSU advisor prior to enrolling each semester.

General Education Requirements Credits: 16-19

Humanities: Any Group 1 course, (HST 111 or HST 112 are recommended) .................3-4
Mathematics: Placement into MTH 111 or higher, or completion of MTH 23* (see advisor) ....(4)
Science: BIO 108 .................................................4
Social Science: ECO 201 or ECO 202 ................................3
* These credits do not count toward degree requirements.

Occupational Specialty Requirements 20-22

CHM 101 Introductory Chemistry (CHM 150 General Chemistry required if students elect to pursue a Bachelor’s degree).................................4
CIT 100 Computer in Business-An Intro (or equivalent)....3
Electives (see program coordinator for appropriate selection)..................13-15

Note: A minimum of 24 of the 64 credits must be completed through NMC.

MSU North/University Center Requirements 28-31

AT 293 Professional Internship in Ag Technology ....3
PLP 210 Plant Diseases and Pathogens .................3
ENT 110 Applied Entomology ..........................3
CSS 210 Fund. of Soils & Landscape Science ........3
HRT 213 Landscape Maintenance .......................2
HRT 215 Landscape Industry Seminar ..................1
HRT 218 Landscape Irrigation ..........................3
Commercial Turfgrass Operations core & electives or........12
Commercial Horticulture Operations core & electives or..10
Landscape and Nursery core and electives..............12
* See program coordinator to assure core and elective requirements are met.

Program Requirements 64-72

MSU Transfer Students: Students wishing to transfer to MSU as juniors must meet with an MSU and an NMC academic advisor during their first semester to alter general education courses to meet MSU requirements.
Respiratory Therapy - RT
Associate in Applied Science Degree through
Muskegon Community College

Northwestern Michigan College is a partner with Muskegon Community College and Munson Medical Center to offer a collaborative program leading to an Associate in Applied Science Degree. All liberal arts and science courses can be taken through NMC. All didactic respiratory courses will be offered at Munson Medical Center via live interactive television from Muskegon Community College. Most clinical courses can be completed at Munson Medical Center. This program is fully accredited by the Joint Review Committee for Respiratory Therapy Education.

The respiratory therapy program begins each fall semester. Enrollment in the program is based on the student meeting the following criteria: overall GPA of 2.0 and proficiency testing in Beginning Algebra and successful completion of ENG 111. Depending on placement test results and high school and/or college transcript evaluation, some prerequisite classes may be required. Class sizes generally begin with 6-10 students in the Munson interactive classroom.

After completing more than two years of instruction, the therapist student receives the Associate in Applied Science Degree (AAS) from Muskegon Community College. The student must pass the advanced practical examination given by the National Board for Respiratory Therapy in order to receive credentials.

Admission Requirements
Enrollment in any Respiratory Therapy (RT) course requires admission to the Respiratory Therapy program. Consideration for admission requires satisfactory completion of program prerequisites and admission to both Muskegon Community College and the Respiratory Therapy program. Space in the Respiratory Therapy program is limited. Completion of prerequisites does not guarantee admission to the Respiratory Therapy program. Students interested in pursuing a degree in Traverse City for Respiratory Therapy from Muskegon Community College would follow these guidelines for application to and registration in the program.

1. Submit an application to Northwestern Michigan College. Applications are available at www.nmc.edu/admissions or at the Admissions Office (231) 995-1054.

2. Meet with an NMC counselor or Health Occupations Respiratory Therapy Advisor to complete your educational development plan for completing your degree.

3. Complete the basic criteria for admission to the Respiratory Therapy program including: overall GPA of 2.0 and proficiency testing in Beginning Algebra and successful completion of ENG 111.

4. Apply for Admission to Muskegon Community College and the Respiratory Therapy Program at www.muskegon.cc.mi.us/pages/894.asp or applications are also available by calling (231) 995-1235.

Technical Management Administration
Associate in Applied Science Degree

Adding technical training to a business background has long been recognized as a powerful combination in the job market. Technicians often work with non-technical personnel such as accountants, managers, and data processors.

In order to obtain this successful combination of technical and business skills, students who have earned an Associate in Applied Science degree in a technical program may earn a second AAS degree in Technical Management Administration by completing 32 additional credits with a business emphasis.

Please note: This program is available only to students who have already completed an associate degree program in a technical area (Technical, Health, and Visual Communications programs). This program is not available to the student whose first degree is from a Business program.

Previous Technical focused AAS degree Credits: 64

Occupational Specialty Requirements 32

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>Accounting Principles I</td>
<td>4</td>
</tr>
<tr>
<td>ACC</td>
<td>Accounting Principles II</td>
<td>4</td>
</tr>
<tr>
<td>BUS</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS</td>
<td>Professional Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>CIT</td>
<td>Computers in Business-An Intro</td>
<td>3</td>
</tr>
<tr>
<td>MGT</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Any Business Course</td>
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</tr>
</tbody>
</table>

Credits: 64
Visual Communications

Associate in Applied Science Degree
NMC Code 351

This degree program is oriented to careers in advertising design and graphic design. Employment opportunities include entry-level positions in newspapers, publishing and printing firms, retail firms, manufacturers, advertising agencies and local freelance work. Students are encouraged to transfer to four-year colleges or universities to earn a bachelor's degree if they plan to seek higher level positions. Emphasis is placed on learning marketable job skills, process, problem-solving techniques, and portfolio preparation. Students explore a full range of skills: drawing, lettering, layout, computer illustration techniques, team-work, new media and design. Students who transfer to a four-year art and design college may complete the Associate in Science and Arts degree requirements.

General Education Requirements
Credits: 17-19

Communications: ENG 111 and ENG 112 ......................... 6-8
Humanities: ART 111 or ART 112 (preferred) .......................... 3
Mathematics: Placement into MTH 111 or higher, or completion of MTH 23* .................................................. 4
Science: Any Group 1 course with a lab ......................... 4
Social Sciences: Any Group 1 course ................................ 3
* These credits do not count toward degree requirements.

Occupational Specialty Requirements
Credits: 45

ART 121 Drawing I .................................................. 3
ART 122 Drawing II ................................................ 3
ART 131 2-D Design .................................................... 3
ART 132 3-D Design .................................................... 3
ART 171 Photography ...................................................... 3
VCA 100 Materials and Techniques .............................. 3
VCA 123 Photoshop I ...................................................... 2
VCA 125 Typography I ................................................... 3
VCA 126 Typography II ............................................... 3
VCA 150 Digital Graphic Design ................................. 4
VCA 200 Visual Communications II ................................ 3
VCA 220 Visual Communications III ................................ 3
VCA 225 Visual Communications Studio ........................ 3
VCA 230 Visual Communications V ................................ 3
VCA 235 Visual Communications Portfolio ...................... 3
Elective Course ......................................................... 0-2

Program Requirements
Credits: 64

Visual Communications - Creative Management in Art Direction

Associate in Applied Science Degree
NMC Code 251

This Visual Communications program is designed for students who have completed the VCA Associate in Applied Science degree and have the desire to work locally or not wish to transfer to a four-year BFA or university program. This degree focuses on a tailored set of courses from other disciplines that expose the student to marketing, copywriting, small business management, new media, digital photography and other skills that will aid them in breaking into the work force. A required summer internship with a local marketing/design/advertising firm is a key part of this program.

Previous Visual Communications AAS degree
Credits: 64

General Education Requirements

ENG 221 Creative Writing or
ENG 222 Creative Writing ......................................................... 3
MGT 255 Small Business Management and ..................... 3
BUS 156 Essentials of Customer Service or .................. 1
COM 111 Public Speaking or
COM 201 Mass Communication and Culture .................. 4
ENG 220 Technical Writing ...................................................... 3
MKT 201 Principles of Marketing or
MKT 210 Principles of Selling ............................................. 3
VCA 147 Web Design .......................................................... 3
VCA 146 Interactive Animation ............................................ 3
VCA 250 Time Based Media .................................................. 3
ART 175 Digital Photography ................................................ 3
ART 213 Modern Art History ................................................. 3
VCA 290 Visual Communications Internship .................... 4

To apply, use the three-digit NMC Code on your admissions application.
www.nmc.edu
Welding Technology
Certificate of Achievement (Level II)  NMC Code 016

The Welding Technology courses are designed to meet the needs of the beginning welding students as well as the needs of people who are upgrading their welding skills. Students will develop their skills in this area through laboratory experience using equipment representative of the welding industry. Welding classes can prepare students to be a certified welder, provide a certificate in Welding Technology, or an Associate in Applied Science degree through the Manufacturing Technology program. The welding curriculum includes Oxy-acetylene, Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW), on both ferrous and nonferrous materials.

Certificate Requirements  34

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<th>Code</th>
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<td>MFG 111</td>
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<td>MFG 113</td>
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Find it here.
## Course Prefixes by Academic Area

### Aviation
- AVF: Aviation Flight
- AVG: Aviation Ground

### Bridge
- BPC: Bridge Courses

### Business
- ACC: Accounting
- BPD: Business Professional Development
- BUS: Business Administration
- CIT: Computer Information Technology
- CUL: Culinary Arts
- MGT: Management
- MKT: Marketing
- PAR: Legal Assistant

### Communications
- COM: Communications
- ENG: English
- MLA: Modern Language–American Sign Language
- MLF: Modern Language–French
- MLS: Modern Language–Spanish
- THR: Theater

### Construction Technology
- CAR: Carpentry Technology
- ELE: Electrical Technology
- HVA: HVAC/R Technology
- PLU: Plumbing Technology

### Health Occupations
- HAH: Allied Health
- HDA: Dental Assistant
- HNR: Nursing
- HPD: Health Professional Development

### Humanities
- ART: Art
- DNC: Dance
- HST: History
- HUM: Humanities
- MUS: Music
- PHL: Philosophy
- VCA: Visual Communications

### Maritime
- MDK: Maritime-Deck
- MNG: Maritime-Engineering
- MNS: Naval Science

### Physical Education
- HF: Health and Fitness
- OUT: Outdoor Pursuits
- PE: Physical Education

### Science and Mathematics
- AST: Astronomy
- BIO: Biology
- CHM: Chemistry
- EGR: Engineering
- ENV: Environmental Science
- MTH: Mathematics
- PHY: Physics

### Social Sciences
- CD: Child Development
- CJ: Criminal Justice
- ECO: Economics
- EDU: Education
- GEO: Geography
- LWE: Law Enforcement
- PLS: Political Science
- PSY: Psychology
- SOC: Sociology
- SWK: Social Work

### Technical
- AT: Automotive
- DD: Drafting and Design
- EET: Electronical/Electronics Technology
- MFG: Manufacturing Technology
- WPT: Welding Process Technology

For course availability, refer to [www.nmc.edu/schedule](http://www.nmc.edu/schedule) or the Schedule of Classes.
Reading a Course Description

The semester credit hours followed by (contact hours) are listed on the first line of the course description. Student tuition is based on the course contact hour. At the end of the description the course is identified by group number. See graduation requirements on page 58.

In addition to the courses listed in this section, each instructional area within the college may offer the following three courses:

290A-E Academic Internships
An internship is a method of earning college credit in a supervised field experience. It is an opportunity for students who want to explore career or interest areas, apply classroom theory to a real situation, and gain practical experience for resume building. Service Learning Internships specifically provide an opportunity to earn credits while giving some of your talents to the community as a volunteer. All internships can be arranged in all liberal and occupational studies areas for one to four hours of elective credit. A maximum of four credits will count toward associate degree requirements. Group 2 course.

291 Special Topics
Seminars, lectures, etc. on a selected topic within a field are sometimes offered as special courses. Students may enroll in more than one Special Topics offering but not all four-year schools accept special topics credits. Group 2 course.

297 Independent Study
This option provides an opportunity for a student with a good scholastic record to pursue independently the study of a subject under the guidance of an instructor. This option may be repeated for NMC credit but not all four-year schools accept independent study credits. Group 2 course.

NMC Course Descriptions

**ACC Accounting**

**ACC 121 Accounting Principles I** .........................4.0 (4)
Entry requires minimum COMPASS scores of 82 in reading and math placement into MTH 111.
This course covers basic principles and procedures in accounting for both a service and merchandising business. It includes the accounting cycle, financial statement preparation, manual accounting systems, petty cash, bank reconciliations, receivables, inventories, and payroll. It is strongly recommended that students take BUS 105 before or with this course. Group 2 course.

**ACC 122 Accounting Principles II** .........................4.0 (4)
Prerequisite(s): ACC 121
Second semester accounting continues with plant assets and related expenses, partnerships, corporations, bonds, cash flow statements, and statement analysis. Group 2 course.

**ACC 221 Intermediate Accounting I** .........................4.0 (4)
Prerequisite(s): ACC 122
A detailed analysis of the content of financial statements covering problems related to assets, liabilities, corporate capital, working capital, and various analytical processes used to interpret financial reports. This is a spring semester offering. Group 2 course.

**ACC 222 Intermediate Accounting II** .........................4.0 (4)
Prerequisite(s): ACC 122
It is recommended that ACC 221 be taken before this class. A detailed analysis of the content of financial statements covering problems related to assets, liabilities, corporate capital, working capital, and various analytical processes used to interpret financial reports. This is a spring semester offering. Group 2 course.

**ACC 225 Cost/Management Accounting** .....................3.0 (3)
Prerequisite(s): ACC 122, MTH 111
This course introduces the basic concepts and terminology of managerial cost accounting, its nature and tasks. Both job order cost systems and process cost systems are analyzed. The student begins building a knowledge base for managerial cost accounting through the analysis of the theory and practical applications of 1) cost-volume-profit, 2) job costing, 3) budgets and standard costing, and 4) study of internal control systems in a manufacturing setting. Group 2 course.

**ACC 290 Accounting Internship** .........................3.0 (3)
Prerequisite(s): 12 semester credits of accounting in addition to a Spreadsheet course. A minimum GPA of 3.0 in accounting. Approval of accounting instructor required. Minimum of 8 hours per week.
The accounting work experience is an elective of the two-year Associate in Applied Science degree in Accounting. The purpose of this work experience course is to provide an opportunity for students to acquire accounting work experience, to apply their skills in a real work setting, and to build ties with the business/professional community. Students spend 10 hours per week in this paid or non-paid, supervised on-the-job training experience. In addition to the required 150 hours in an accounting site, students participate in semi-monthly seminars. Students must apply one month prior to the semester in which they will complete the internship. Group 2 course.

For course availability, refer to www.nmc.edu/schedule or the Schedule of Classes.
ART 100  Art Appreciation ........................................ 3.0 (3)
This course prepares the student to make sense of the visual arts, with the emphasis on the process of evaluating meaning and value. The student is exposed to the various media and forms with which the artist works. In addition, the student is given a brief overview of the history of art from classical to the present. Group 1 course.

ART 111  History of Western Art I .................................. 4.0 (4)
This course will introduce major trends of Western Art from Pre-History through Greece, Rome and the Middle Ages. Significant works of painting, sculpture and architecture will be presented within the social, political and cultural context of each period. Group 1 course.

ART 112  History of Western Art II .................................. 4.0 (4)
This course is designed to introduce major trends in Western Art from the Renaissance through Modernism to the present. Significant works of painting, sculpture and architecture will be presented within the social, political and cultural context of each period. Group 1 course.

ART 116  World Cultures .................................................. 4.0 (4)
This course explores the arts and culture of Asia, Africa, Oceania, and the Americas utilizing an interdisciplinary and thematic approach which focuses on painting, sculpture, architecture, textiles, body art, masks, costumes, cultural rituals and social customs of each region. Group 1 course.

ART 121  Drawing I ......................................................... 3.0 (4)
Drawing I introduces the students to basic drawing skills and techniques through the use of line, form, composition, perspective and the use of chiaroscuro. The course emphasis is on using drawing as a vehicle for seeing and communicating. Students will learn to judge proportion, create volume, depict the illusion of space and to analyze and evaluate their own work as well as others. Black and white dry medium will be used for all assignments. Group 2 course.

ART 122  Drawing II ......................................................... 3.0 (4)
Prerequisite(s): ART 121
Course will explore advanced methods in drawing including freehand perspective and conceptualizing of compositions with an emphasis on the use of new media and developing a personal style. Use of color media and theory will also be explored in this course. Assignments will include still lifes and object studies designed by both the instructor and the students. Group 2 course.

ART 131  2-D Design ......................................................... 3.0 (4)
Course will study the concepts and theory of two-dimensional design, pattern, and color as they apply to visual perception and communication. Students will study visual structure, color and their application. Group 2 course.

ART 132  3-D Design ......................................................... 3.0 (4)
Prerequisite(s): ART 131 or permission of department; may also be taken as a co-requisite.
An introduction to the elements of construction and production of three-dimensional design. Shape, volume, mass, and interaction of forms and colors will be studied within a variety of conceptual models, e.g. architecture, sculpture, package design, display, etc. Group 2 course.

ART 151  Pottery I ......................................................... 3.0 (4)
Pottery I is an introductory course to acquaint students with the plastic properties of clay as a medium. The student is introduced to both hand-built and wheel-thrown ware. Students also learn the elements of glazing and firing to achieve finished pieces. Group 2 course.

ART 152  Pottery II ......................................................... 3.0 (4)
Prerequisite(s): ART 151
Pottery II is offered for those students who want to involve themselves further with the craft of pottery making. The student is expected to work on a more advanced level, learn preparation and types of clay, formulation and testing of glazes, stacking and firing of kilns. Group 2 course.

ART 161  Painting I ......................................................... 3.0 (4)
Course will introduce concepts of painting as well as principles of design, including the development of painting techniques. Students will be given painting projects/problems throughout the semester ending with one self-directed painting which make application of learned concepts. Oils and acrylics will be used. Group 2 course.

ART 162  Painting II ......................................................... 3.0 (4)
Prerequisite(s): ART 161
This course will continue the concepts of Painting I as well as elements of design, including the development of a personal styled technique. Students will deal with more complex and involved painting concepts with an emphasis upon a particular focus of interest and challenge. The course is designed to give more latitude in an independent/individual approach. Students will work in either oil or acrylic paint. Group 2 course.

ART 165  Watercolor Painting I ......................................... 3.0 (4)
Prerequisite(s): ART 164
An introduction to the techniques and materials of watercolor painting. Includes use of creative effects, additive and subtractive approaches, and mixing of color to create effective paintings in a step-by-step manner. Group 2 course.

ART 166  Watercolor Painting II ......................................... 3.0 (4)
Prerequisite(s): ART 165
Watercolor II deals with advanced problems in watercolor painting with special emphasis on individual development and creativity particularly in the area of compositional conceptualization. Group 2 course.
ART 171  Photography I ................................. 4.0 (4)  
This is an introductory course in black and white photography, emphasizing composition theory, analogue/film, 35mm SLR camera functions, exposure control and film processing. An introduction to digital darkroom technology is covered. Students will demonstrate their understanding of two-dimensional design in photography by producing two portfolios of their work. Group 2 course.

ART 173  Photography II ................................. 3.0 (3)  
Prerequisite(s): ART 171  
Photography II builds on the competencies in black and white photography developed in the Photography I lecture and lab courses with an emphasis on identifying and enhancing technical and compositional skills of the student on an individual basis. The student is expected to identify those skills and areas for improvement that are the most needed and develop, with the aid of the instructor, a plan for addressing those needs. Group 2 course.

ART 175  Digital Photography I .......................... 3.0 (4)  
Prerequisite(s) ART 171 or instructor permission.  
Digital Photography I is an intermediate photography course covering the basics of working with photographs in digital form. Specific topics will include digitizing images, image enhancement using software programs (Adobe Photoshop), color theory as it applies to both image making and image enhancement, and output to digital prints. Group 2 course.

ART 181  Printmaking I ................................. 3.0 (4)  
Prerequisite(s): ART 171  
Printmaking I is an introductory survey course that introduces the students to a wide variety of print media: intaglio, relief embossing and mono type. Students will gain knowledge of the history, conception, production and presentation of achromatic prints. Group 2 course.

ART 182  Printmaking II ................................. 3.0 (4)  
Prerequisite(s): ART 181  
Printmaking II expands on processes and concepts explored in Printmaking I with the emphasis on more complex techniques, including lithography, dry point, and collagraphs. Students will refine their technical skills and concepts begun in Printmaking I. Students will explore contemporary printing techniques and issues. Group 2 course.

ART 213  Modern Art History ............................. 3.0 (3)  
This course examines the history of art from the beginning of the 20th Century to present. Emphasis is placed on the continuing interplay of modern art movements and the relationship of art to the social and cultural context. Group 1 course.

ART 214  Women in Art ................................. 3.0 (3)  
This course will provide a historical study of selected European and American women painters, sculptors, architects, and craftspersons from the 17th through 20th Centuries. Art works will be examined within the social and cultural context of each century. Group 1 course.

ART 221  Life Drawing I ................................. 3.0 (4)  
Prerequisite(s): ART 121  
Life Drawing I involves comprehensive studies in drawing the human figure with a variety of materials and discusses the solution of the problems of figure drawing used to advance the general qualities of grace, rhythm, and form. Explorations include gesture drawing, contour drawing and drawing the figure in motion. Life Drawing I will work primarily in charcoal and pencil. Group 2 course.

ART 222  Life Drawing II ................................. 3.0 (4)  
Prerequisite(s): ART 221  
Life Drawing II is an advanced study of problems in drawing the human figure in multiple views and in longer studies with an accent on composition and dealing not only with the model but the environment the model is in. Life Drawing II will include the introduction of color and wet media. Group 2 course.

ART 252  Art Education ................................. 3.0 (4)  
Course will introduce students to the language of art and art terms within the context of discipline-based art education. Students will address issues concerning aesthetics within a hands-on environment (process production) utilizing a context of art criticism and art history. Each student will develop and present an art lesson plan which incorporates learned art objectives. Group 2 course.

ART 275  Digital Photography II .......................... 3.0 (4)  
Prerequisite(s): ART 175  
Digital Photography II is an advanced photography course dealing with working with photographs in digital form. Specific topics will include advanced tools for image, advanced features of software digital imaging programs (Adobe Photoshop), color management in the digital environment, and specialized options for output to digital image setters (slides, negatives, art prints, etc.). Group 2 course.
AST 100  Observational Astronomy ......................... 2.0 (2)
This is an introduction to astronomy. The goal of this course is to acquaint the student with the constellations, solar system objects and their motions, the celestial sphere concept and coordinate system. Stars, star clusters, nebulae and galaxies are also studied. Students will use unaided eye observations as well as telescopes, spectrograph, photometer and CCD camera to observe and report findings. Each session includes training in the operation of equipment. **Group 2 course.**

AST 109  Planetary Astronomy .............................. 4.0 (3)
**Prerequisite(s): MTH 111, ENG 99**
Corequisite(s): AST 109 and AST 109L
Characteristics and properties of the solar system and its components are presented to students in the context of the history of discovery. This information is integrated with student observational data to develop a mathematical model in the laboratory. The model is developed by incorporating equations which are used to compute characteristics and properties of solar system components. The model is utilized by students to encourage understanding of why the solar system has evolved to its current state by evaluating the effects of changes in values of fundamental measured properties and characteristics. **Group 1 lab course.**

AST 119  Astronomy ........................................... 4.0 (3)
**Prerequisite(s): MTH 111, ENG 99**
Corequisite(s): AST 119 and AST 119L
History of discovery of the nature of the cosmos and its contents is the format utilized to develop understanding of the nature of stars and the universe, and the physical principles determining this nature. These principles underlie our proficiency for prediction of the nature of the universe and our ability to make observations of our universe. The principles are analyzed by means of a student developed mathematical model incorporating the quantitative relationships derived by physicists and astronomers. Observations provide students with the sky knowledge and data necessary for prediction of stellar characteristics. **Group 1 lab course.**

Visit [www.nmc.edu/science-math](http://www.nmc.edu/science-math) for more detailed information.

AT 100  Automotive Service Basics ....................... 2.0 (2)
**Prerequisite(s): Assumes that the student is ready for ENG 111 or MTH 23**
Automotive Service Basics is the first class in our Automotive Service Program. Engine theory, cooling systems, lube requirements will be covered. Bolts, micrometers and basic specialty tools are integrated into the class. Training in the use of acetylene torch equipment will be taught along with it’s use in the automotive field. Students who passed a prior approved high school tech prep program will not be required to take this course. This course is designed to prepare the student to enter the automotive program. **Group 2 course.**

AT 110  Automotive Brake Systems ...................... 5.0 (7)
**Prerequisite(s): AT 100 or taken concurrently.**
This course covers theory, components, nomenclature, and service of automotive brake systems. Students will use standard skills to diagnose hydraulic systems, drum and disk brakes, power assist units and systems. The study and repair of modern ABS systems along with the replacement of associated parts such as wheel bearings also will be covered. Lab work will include procedures such as the use of brake lathes, brake line cutting and flaring procedures and the use of electronic test equipment. **Group 2 course.**

AT 120  Automotive Electrical I .......................... 5.0 (8)
**Prerequisite(s): AT 100 or taken concurrently.**
This course covers basic electric circuits, testing equipment, and solid state electronics. This course will also familiarize the student with the operation, testing, and service of the automotive starting and charging system. This is a combination lecture and lab course using both components and vehicles for demonstration. **Group 2 course.**

AT 130  Engine Performance I .............................. 5.0 (8)
**Prerequisite(s): AT 220**
This course is designed to familiarize the student with the theory and operation of the automotive ignition and fuel systems. The course includes topics such as distributors, electronic ignition, distributorless systems, fuel injection systems, turbochargers and superchargers. The lab portion provides the student with actual hands on experience with tune-up, ignition, and fuel system service. Modern test equipment will be provided and proper diagnostic techniques will be stressed. **Group 2 course.**

AT 140  Suspensions and Steering ....................... 4.0 (6)
**Prerequisite(s): AT 100 or taken concurrently.**
This course is designed to familiarize the student with the nomenclature, theory, and service techniques for the modern steering and suspension system. Includes the repair of MacPherson struts and rack and pinion service. The course will provide the student with actual experience with alignment and tire balancing equipment. **Group 2 course.**

AT 150  Automatic Transmissions ......................... 6.0 (9)
**Prerequisite(s): Instructor permission.**
This course is designed to familiarize the student with hydraulic theory, internal transmission powerflow, electronic control and torque convertor operation. All aspects of transmission operation will be covered as well as removal, overhaul and installation procedures. Students will remove, overhaul, dynamo-test and install actual failed units in the lab. The cause of the failure of these units will be explored in detail. Factory and aftermarket updates to prevent future failures will be taught. **Group 2 course.**
AT 160  
**Engine Repair** ............................... 6.0 (8)
Prerequisite(s): AT 100 or taken concurrently.
This course covers the theory, construction, and repair of the four stroke automotive engine. This will include the proper use of compression and leakage test equipment, precision measuring tools, special engine tools and valve grinding equipment. The lab work will include diagnosis, replacement of external parts and tear down and overhaul of actual failed engines. **Group 2 course.**

AT 170  
**Heating and Air Conditioning**............ 4.0 (6)
Prerequisite(s): AT 120
This course covers the principles of refrigeration with emphasis on the particular problems of application to automotive air conditioning. The course also covers automotive heating systems which include heater cores, blower motors, ventilation, and the use of refrigerant recovery and charging equipment and will have hands on experience in the lab with that equipment. **Group 2 course.**

AT 180  
**Manual Drivetrain and Axles**.............. 6.0 (9)
Prerequisite(s): AT 100 or taken concurrently.
This course covers the basic operating principles, construction, power flow and repair of clutches, manual transaxles and drive shafts. Different theory and overhaul will be covered including ring and pinion replacement and set up. Lab work will include hands on repair of late model vehicles including four wheel drive. **Group 2 course.**

AT 190  
**Automotive Facility Orientation**........... 2.0 (2)
This is an automotive repair facility internship experience that will focus on students learning about the day to day duties of an auto repair technician, learning about the organization supporting the technician, and how automotive repair facilities function. This will be accomplished as an internship using a combination of: observation, interview, analysis, written documentation of the experiences, and group discussions. **Group 2 course.**

AT 200  
**Service Dept. Management**................ 2.0 (2)
This course is designed to acquaint the student who plans a career in the automotive service industry with the duties, responsibilities, qualifications, and problems of service department manager. The student will learn general shop organization, types of service, and cost and returns by department. Time will be devoted to employer-employee and customer relations and instruction in the use of the service manual. Also includes practice in writing and administering various forms such as work orders, rate sheets, etc. **Group 2 course.**

AT 220  
**Automotive Electrical II**.................. 5.0 (8)
Prerequisite(s): AT 120
This course covers advanced automotive electronics with the emphasis placed on operation, troubleshooting and repair of lighting, gauges, accessories, and power options circuits. Body hardware is covered including diagnostics of modern systems with body control modules. **Group 2 course.**

AT 230  
**Engine Performance II**.................... 4.0 (6)
Prerequisite(s): AT 130
This course covers computerized engine controls including the latest emission control systems. The student will become proficient with the use of scanners, scopes and the latest engine analyzers. The art of diagnostics and troubleshooting will be stressed. The student will have hands on experience in this area including practice using the computer as a source of information. **Group 2 course.**

**AVF 111**  
**Private Flight**.............................. 5.0 (5)
A flight course structured to provide a minimum of 40 dual and solo flight hours to meet the aeronautical experience requirements for a private pilot. Upon completion of this course the student will have attained the FAA Private Pilot Certificate. **Group 2 course.**

**AVF 118**  
**Instrument Flight I**.......................... 1.0 (1)
Prerequisite(s): Private Pilot License.
This course is the beginning stage of the Instrument Pilot License. The ground work will be laid for students to safely fly by the instruments. Skills and techniques will be gained to effectively move to Instrument Flight II where holding, tracking, and approaches will be learned. Both the aircraft and flight simulator will be used to obtain skills required for this course. Objectives learned will go toward the FAA Instrument Rating. **Group 2 course.**

**AVF 130**  
**Instrument Flight II**.......................... 2.0 (2)
Prerequisite(s): AVF 118
At the completion of this course the student will be signed off for the FAA Instrument check ride. The aircraft and the simulator will be used to tech the student skills required. The student will learn tracking, holding, and instrument approaches. At the culmination of this course the student will have gained actual instrument flight time and be a competent instrument pilot. **Group 2 course.**

**AVF 230**  
**Commercial Flight I**.......................... 2.0 (2)
Prerequisite(s): Instrument Flight Certificate.
The student will learn the skills required by the FAA to safely operate the complex aircraft. They will also increase their instrument proficiency while conducting required cross country flights. Students will learn in an aircraft and flight simulator during this course. **Group 2 course.**

**AVF 232**  
**Commercial Flight II**.......................... 3.0 (3)
Prerequisite(s): AVF 230
A flight course structured to provide a minimum of 51 dual and solo flight hours to partially fulfill the flight hour requirements for the FAA Commercial Pilot Certificate. This course will provide a review of VFR and IFR cross country navigation procedures and introduce the student to commercial flight maneuvers. Upon completion of this course the student will have completed Stage Seven in the Commercial Pilot Syllabus. **Group 2 course.**
AVF 234  Commercial Flight III ......................... 3.0  (3)  
Prerequisite(s): AVF 232 and AVF 224  
This course is the last of four flight courses required to obtain the FAA Commercial Pilot Certificate. This course consists of approximately 49 flight hours flown in a training airplane and will consist of dual/solo cross country flights and a review of all commercial flight maneuvers in preparation for the Commercial Pilot FAA Practical Test. Upon completion of this course, the student will have completed Stage Eight of the Commercial Pilot syllabus and attained the FAA Commercial Pilot Certificate. Group 2 course.

AVF 271  Multi-Engine Flight .......................... 1.0  (1)  
Prerequisite(s): AVF 111 or Private Pilot Certificate.  
This is a flight course involving approximately 10 flight hours in an airplane/simulator and 11 ground hours is designed to give the student the aeronautical knowledge, proficiency, and experience required to meet the FAA Practical Test Standards for the Private or Commercial Multi-engine rating. Upon completion of this course, the student will have attained the FAA Multi-engine Land Rating. Group 2 course.

AVF 274  Tailwheel Flight .............................. 1.0  (1)  
Prerequisite(s): Private Pilot Certificate.  
This course is designed to provide the student with the skills, knowledge, and experience to receive a logbook endorsement to fly tailwheel aircraft. This course will usually be taught in the fall, winter, and spring months in a tailwheel aircraft. Group 2 course.

AVF 275  Seaplane Flight ............................... 2.0  (2)  
Prerequisite(s): Private Pilot License.  
In this course, the student will gain the skills, knowledge, and experience to receive endorsement for the FAA Practical Test. Students will learn in a Piper Super Cub on floats as they demonstrate maneuvers and landings. Group 2 course.

AVF 283  Upset Maneuver Training ..................... 1.0  (1)  
Prerequisite(s): Private Pilot License.  
In this course the student will learn the foundations to safely perform basic aerobatic maneuvers. Also, the student will gain confidence and skills necessary to recover from various unusual flight attitudes that will increase the students’ overall flight safety. Group 2 course.

AVF 284  Instrument Flight Instructor .................. 2.0  (2)  
Prerequisite(s): Commercial Pilot certificate with instrument rating.  
The student perfects both teaching and instrument flying skills while sitting in the right seat of the cockpit. The student develops the knowledge and ability to teach others instrument flying procedures. Training utilizes instrument equipped aircraft and a Frasca simulator. The course consists of 10-20 hours of flying and 10-20 hours of ground time. Group 2 course.

AVF 382  Flight Instructor Rating ....................... 4.0  (4)  
Prerequisite(s): Commercial Pilot certificate with instrument rating.  
In this course the student will learn the skills to be a Certified Flight Instructor (CFI). They will master the skills of the Private and Commercial Pilot ratings. In addition they will learn how to be an effective teacher and understand all FAA rules and regulations that accompany being an instructor. The student will learn in this course through the use of the simulator and aircraft. Group 2 course.

AVG 101  Private Pilot Ground School ................. 5.0  (5)  
A course of study that will provide the aeronautical knowledge required of a private pilot and prepare the student to take the FAA Private Pilot written examination. Topics include: aerodynamics, engine and aircraft systems, airport operations, weight and balance, aircraft performance, Federal Aviation Regulations, meteorology, airspace, navigation, and flight physiology. Group 2 course.

AVG 161  Mechanics for Pilots ....................... 3.0  (3)  
Prerequisite(s): Private Pilot License.  
This course will teach the students about the systems, components, safe repair, and regulations involved with maintaining and operating small aircraft. Students will learn in the classroom and in the maintenance hangar. Group 2 course.

AVG 190  Aviation Weather ............................ 3.0  (3)  
Prerequisite(s): AVG 101  
This course offers thorough coverage in the application and analysis of meteorological charts and how they pertain to aviation. It emphasizes the need for advanced knowledge on how NWS/NOAA charts are derived and how to understand their use in aviation today. Additional emphasis will be placed on predominant weather patterns, associated weather and planning flights to avoid severe weather. A basic understanding in the theory of meteorology is desired. Group 2 course.

AVG 202  Advanced Aircraft Systems .................. 3.0  (3)  
Prerequisite(s): AVG 101  
This course is designed to prepare those students seeking to be career pilots to be successful in the intense aircraft systems ground schools offered by the airlines, manufacturers, and private training providers such as Flight Safety. Each major system of large turbine aircraft will be studied. Group 2 course.

AVG 204  Airline Aircraft Ground School ............. 3.0  (3)  
Prerequisite(s): AVG 202  
This course is designed to prepare those students seeking to be career pilots to be successful in the intense aircraft ground schools provided by the airlines. Canadair Regional Jet systems, limitations, normal and emergency checklist, and flows and flight procedures will be covered in this course. Group 2 course.
A study of fundamental legal and aviation law principles as they apply to the various segments of the aviation industry. There will be special emphasis on contemporary aviation legal issues. The highlight of the course will be a mock court where the students, acting as plaintiff and defense attorneys, will argue an actual aviation civil case before an impartial jury. **Group 2 course.**

**AVG 240 Corporate Aviation Ground ..................... 3.0 (3)**
Prerequisite(s): AVG 202
Students taking this course will learn about the aspects of corporate aviation. Aircraft, regulations, business customs, and future outlooks of corporate aviation will be presented. **Group 2 course.**

**AVG 251 Commercial Ground School ..................... 4.0 (4)**
Prerequisite(s): AVF 111 or private pilot certificate.
An advanced study of aviation topics including GPS, meteorology, radio communications, airspace, and Federal Aviation Regulations. In addition, aircraft systems, career opportunities, aviation safety, aircraft weight and balance, performance charts, and aerodynamics are re-viewed with emphasis on commercial pilot operations. **Group 2 course.**

**AVG 252 Instrument Ground School ..................... 4.0 (4)**
Prerequisite(s): AVG 101 or private pilot certificate.
A course of study that will provide the aeronautical knowledge required for the instrument rating and prepare the student to take the FAA Instrument Rating-Airplane written examination. Topics include: flight instruments, radio navigation, departure, enroute, and arrival procedures, VOR, NDB, ILS, and GPS approaches, IFR emergencies, aviation weather, and IFR cross-country flight planning. **Group 2 course.**

**AVG 381 Instructor Ground School ..................... 5.0 (5)**
Prerequisite(s): AVG 251
A course of study that will provide basic education principles and a review of the aeronautical knowledge required for the flight instructor (airplane single engine) certificate and prepare the student to take the FAA Fundamentals of Instruction (FOI) and the Flight Instructor-Airplane Single Engine written examinations. Through classroom presentations and one-on-one student teaching, students will gain practical teaching experience. **Group 2 course.**

**BIO 100 Food and Nutrition Biology ..................... 4.0 (3)**
**BIO 100L Food and Nutrition Biology Lab .............. 0.0 (2)**
Note: There are no prerequisites for this course but students scoring below MTH 23 and ENG 111 levels on the COMPASS placement test should plan on additional study time. Corequisite(s): BIO 100 and BIO 100L
This course is designed for students who wish to improve their understanding of nutrition in their daily activities. Healthy eating is attracting more attention as Americans struggle with the problems of obesity and in disease prevention. In addition to the normal topics of biology such as biochemistry, genetics, evolution, and DNA structure and function, this introductory course has an emphasis on nutrition. The student will gain a working knowledge of the principles of good nutrition as it relates to their personal health. Related topics will include the major classes of nutrients and their functions; personal energy needs, dietary habits and activity levels; the correlation between diet and diseases, including cancer, heart disease and diabetes; and an awareness of nutrition controversies, food faddism, weight loss gimmicks and quackery in the field of nutrition. **Group 1 lab course.**
BIO 105  Living in the Environment .................. 4.0 (3)
BIO 105L  Living in the Environment Lab .......... 0.0 (2)
Note: There are no prerequisites for this course but students scoring below MTH 23 and ENG 111 levels on the COMPASS placement test should plan on additional study time.
Corequisite(s): BIO 105 and BIO 105L.
This course offers an introduction to general biology. The topics covered will include many field trips which illustrate, among other topics, ecology, habitats of Michigan, river quality, forest analysis, water treatment, and alternative energy generation. Group 1 lab course.

BIO 106  Human Biology .............................. 4.0 (3)
BIO 106L  Human Biology Lab ........................ 0.0 (2)
Note: There are no prerequisites for this course but students scoring below MTH 23 and ENG 111 levels on the COMPASS placement test should plan on additional study time.
Corequisite(s): BIO 106 and BIO 106L.
A survey of Human Anatomy and Physiology with a primary focus on health and disease. Topics to be discussed will include the cell structure, simple chemistry of biology, homeostasis, the organ systems, genetics, nutrition, exercise physiology, cancer, heart disease, immunology, AIDS, the effects of drugs and alcohol, and other topics of current interest. This course is offered in multiple formats such as online or traditional. Consult an advisor before enrolling. Group 1 lab course.

BIO 107  Field Biology ............................... 4.0 (3)
BIO 107L  Field Biology Lab .......................... 0.0 (3)
Note: There are no prerequisites for this course but students scoring below MTH 23 and ENG 111 levels on the COMPASS placement test should plan on additional study time.
Corequisite(s): BIO 107 and BIO 107L.
Introductory life science with emphasis on plants and animals of Michigan. Laboratory includes six to eight field trips to study local ecosystems. Students will be required to hike over hills, sand dunes, swamps and bogs. Group 1 lab course.

BIO 108  Plant Biology ............................... 4.0 (3)
BIO 108L  Plant Biology Lab .......................... 0.0 (2)
Note: There are no prerequisites for this course but students scoring below MTH 23 and ENG 111 levels on the COMPASS placement test should plan on additional study time.
Corequisite(s): BIO 108 and BIO 108L.
Since almost all life on earth depends upon photosynthesis, this course places its emphasis on the fascinating world of plants. It includes a study of plant structure, growth, development, propagation and scientific concepts on which horticulture is based. Laboratory exercises will include greenhouse work. Group 1 lab course.

BIO 109  Principles of Life Science ................. 4.0 (3)
BIO 109L  Principles of Life Science Lab .......... 0.0 (2)
Note: There are no prerequisites for this course but students scoring below MTH 23 and ENG 111 levels on the COMPASS placement test should plan on additional study time.
Corequisite(s): BIO 109 and BIO 109L.
This course explores the fundamental nature of life and how living organisms adapt to a constantly changing world. The major emphasis of this course will be on the unity of life, the processes that are fundamental to any living organism. Laboratory exercises will cover a broad range of topics. Group 1 lab course.

BIO 115  Cell, Plant & Ecosystem Biology ............ 4.0 (3)
BIO 115L  Cell, Plant & Ecosystem Biology Lab .... 0.0 (3)
Prerequisite(s): MTH 111
Corequisite(s): BIO 115 and BIO 115L
An introduction to the fundamental concepts of biology, including an investigation of the major kingdoms of life, classification, ecology, botany, cellular anatomy and biochemistry, DNA structure and function, genetic engineering, cloning and stem cell technologies. Laboratory includes field work and investigative exercises which illustrate lecture topics. Group 1 lab course.

BIO 116  Cell & Animal Biology ..................... 4.0 (3)
BIO 116L  Cell & Animal Biology Lab ............... 0.0 (3)
Prerequisite(s): MTH 111
Corequisite(s): BIO 116 and BIO 116L
This lecture and lab course concentrates on cell division, classical genetics as well as evolution and speciation. It also covers the biology of organisms including invertebrate and vertebrate animals. The treatment of the topics in this course necessarily assume a degree of familiarity with the basic biological concepts covered in BIO 115. Students who have not completed BIO 115 should expect to spend extra time reviewing these concepts throughout the course. Group 1 lab course.

BIO 208  Microbiology ............................... 4.0 (3)
BIO 208L  Microbiology Lab .......................... 0.0 (3)
Prerequisite(s): ENG 111, MTH 111 and completion of any 100 level Biology course.
Corequisite(s): BIO 208 and BIO 208L.
Introductory microbe physiology emphasizes human response to disease and the importance of microbes in environmental cycles. Laboratory is included. Group 1 lab course.

BIO 215  Genetics ................................. 3.0 (3)
Prerequisite(s): ENG 111, MTH 111 and completion of any 100 level Biology course.
Continuation of general biology genetics. Classical genetics will be covered in addition to an in-depth study of molecular genetics, recombinant DNA and human inheritance. A major emphasis will be on the current state of genetic research as it applies to topics such as gene therapy, cloning and stem cell research. Population genetics will also be covered. Group 1 course.
BIO 216  Genetics Lab ............................. 1.0 (3)
Corequisite(s): BIO 215
Laboratory to complement BIO 215 Human Genetics for students needing to transfer a 200 level genetics laboratory to a four-year institution. In addition, students interested in the life sciences will earn a deeper understanding of classical, molecular and population genetics by completing this course.
Group 1 lab course.

BIO 220 Nutrition in Human Health............... 3.0 (3)
Prerequisites(s): MTH 23, ENG 111 and completion of any 100-level biology course.
This course is an exploration of the fundamentals of nutrition: energy nutrients, vitamins and minerals. Function and sources of each is presented, as well as the role each plays in maintaining health. Students complete their own Food Intake Record and use this information throughout the semester so as to better understand human nutrition. In addition, study is made of the role nutrition along with other lifestyles plays in the prevention and protection from disease. Discussion also includes the relationship between nutrition and fitness.
Group 2 course.

BIO 227  Human Anatomy & Physiology I ........... 5.0 (5)
BIO 227L Human Anatomy & Physiology I Lab .... 0.0 (2)
Prerequisite(s): MTH 23, ENG 111, CHM 101 (Students with recent high school chemistry may waive the CHM 101 requirement by passing the Introductory Chemistry competency exam). BIO 106 or recent high school biology is highly recommended.
Corequisite(s): BIO 227 and BIO 227L
This is a course designed specifically for the ADN Nursing program and associated health science areas. This first semester will include an introduction to cells, histology, biochemistry, homeostasis, and the organ systems. In addition, the following systems will be discussed: circulatory, nervous, respiratory, and digestive. Lecture will be accompanied by lab work, which will stress the anatomy and histology of these organ systems.
Group 1 lab course.

BIO 228  Human Anatomy & Physiology II .......... 5.0 (5)
BIO 228L Human Anatomy & Physiology II Lab ... 0.0 (2)
Prerequisite(s): BIO 227
Corequisite(s): BIO 228 and BIO 228L
This is a course designed specifically for the ADN nursing program and associated health science areas. This is a continuation of BIO 227 and will include an introduction to metabolism, urinary system, fluid/electrolyte and acid/base balance, the immune system, the skeletal system, special senses, muscle control, endocrine, reproduction and genetics. Lab work stressing the anatomy and histology of these topics will be included. Group 1 lab course.

BIO 240  Normal and Clinical Nutrition ............. 3.0 (3)
Prerequisite(s): BIO 227, MTH 08 or equivalent.
Nutrition is considered from a strong biological point of view. Discussions will include a brief overview of principles of normal nutrition and then will proceed to how these principles apply to cause and treatment of specific disease states and the nutrition care process required. Group 2 course.

BIO 250  Natural History of Vertebrates ............ 4.0 (3)
BIO 250L Natural History of Vertebrates Lab ...... 0.0 (3)
Prerequisite(s): ENG 111, MTH 23 and completion of any 100-level Biology course.
Corequisite(s): BIO 250 and BIO 250L
This course introduces students to the biology and diversity of vertebrate species in Michigan. The life history, anatomy, behavior, systematics, ecology and conservation of each group of vertebrates are examined. Field studies, laboratory investigations, and classroom discussion will help students understand the biology of fishes, amphibians, reptiles, birds and mammals, as well as their relationships to particular habitats. Local vertebrate, natural history, and field study techniques are stressed. Group 1 lab course.

BIO 260  General Ecology ................................ 5.0 (3)
BIO 260L General Ecology Lab .................... 0.0 (4)
Prerequisite(s): ENG 111, MTH 23 completion of any 100-level Biology course.
Corequisite(s): BIO 260 and BIO 260L
This course is an introduction to the study of the complex relationships of organisms with one another and with the physical and biological conditions under which they live. Students will study the conditions necessary for life, population ecology, community and ecosystem dynamics and ecosystem diversity. Field-oriented lab exercises involve observation and data collection followed by analysis. Group 1 lab course.

BIO 268  Biochemistry .................................. 3.0 (3)
Prerequisite(s): ENG 111, CHM 101 or BIO 227 and MTH 23
Study of the basic fundamentals of the chemical composition of living matter with application of concepts to normal and abnormal human function. Course is designed for ADN completion students. Group 1 course.

BIO 270  Ecological Field Studies .................... 2.0 (3)
Prerequisite(s): ENG 111, MTH 111, one Biology course with lab, and instructor permission.
These are specialized studies of a Michigan ecosystem. The type of presentation varies by instructor. One or all of the following may be offered. Group 1 course.

270A Ecological Field Studies
270B Campus Botany

Visit www.nmc.edu/science-math for more detailed information.
**BPC Bridge Program Courses**

**BPC 092 Bridge to Math**............. 3 (non-credit) (3)
Bridge to Math is designed to help adult students make the transition to higher education math courses while at the same time prepares them for today's workplace math requirements.

**BPC 094 Bridge to Communications** 4 (non-credit) (4)
Bridge to Communications is designed to help adult students make the transition into higher education while at the same time prepares them for today's workplace. This class is comprised of intensive hands-on skill building in communications (writing, speaking, and listening) and also features job portfolios, employability activities, and a career development process.

**BPC 096 Bridge to Technology**........ 4 (non-credit) (4)
Bridge to Technology supports adult student learners by incorporating instructor led study sessions to complement an array of required CIT classes. The CIT classes are selected by individual students and can be in keyboarding, Microsoft Word, PowerPoint, Excel and other business software applications. The instructional goal of this course is to help develop the skill sets that can lead to Microsoft Certified Applications Specialist (MCAS) certification.

**BPC 096A Bridge to Technology I**....... 2 (non-credit) (2)
Bridge to Technology supports adult student learners by incorporating instructor-led study sessions to complement the required full credit technology-related courses. Courses can be in keyboarding, Microsoft Word, Microsoft PowerPoint, and other Microsoft Office applications for developing entry-level job skills.

**BPC 096B Bridge to Technology II**..... 2 (non-credit) (2)
Bridge to Technology continues to incorporate instructor-led study sessions for seven weeks to complement the required full credit technology-related courses. Courses can be in keyboarding, Microsoft Word, Microsoft PowerPoint, and other Microsoft Office applications for developing entry-level job skills.

**BPD Business Professional Development**

**BPD 133 Keyboarding Speed/Accuracy** ........... 1.0 (1)
This refresher/skill improvement class is for students who already know how to key using the touch-type method. It focuses on improving the current skill level through drill and testing of the alphabetic characters and basic punctuation keys. It will allow the student to use the computer as an efficient tool in document creation for business, education, and personal life. Optional drill work can be completed in numbers and symbols. Group 2 course.

**BUS Business**

**BUS 101 Introduction to Business**........... 3.0 (3)
American business in the new millennium is exciting and challenging. Students will be introduced to the variety of opportunities by exploring ownership, management, the economy, marketing, international business, social responsibility and business ethics, and entrepreneurship. Group 2 course.

**BUS 105 Business Math**.................... 3.0 (3)
Enter requires minimum COMPASS placement into MTH 23 or take MTH 08.
Apply basic mathematical principles to solve problems in modern business practice. Topics include trade discounts, markups and markdowns, payroll and payroll taxes, interest, sinking funds, installment buying, the cost of home ownership, sales, excise and property taxes. It is designed for day-to-day business applications. Group 2 course.

**BUS 111 Property and Casualty Insurance**..... 3.0 (3)
This course introduces the student to personal lines insurance. It starts with an introduction of key insurance terms, explaining the concepts of insurance, and explains the basics of 2nd and 3rd party coverage. It deals in-depth with home owners, auto, motorcycle, and recreational insurance. Michigan insurance law, the Essential Insurance act, financial responsibility law, and no-fault law are introduced. Group 2 course.

**BUS 112 Life and Health Insurance**........... 3.0 (3)
This course provides practical knowledge for a student entering the field of life and health insurance. It starts with an introduction of life and health insurance, continues to laws affecting these policies, and continues with annuities, disability income and accidental death. It concludes by studying group concepts of life and health insurance. Group 2 course.

**BUS 113 Commercial Insurance**............. 3.0 (3)
This course provides an understanding of commercial insurance covering subjects on property, liability, crime, boiler, and business owners. It will include studying specific policies for condos, business owners, workers compensation, contractors, and garage keepers. Group 2 course.

**BUS 130 Mechanics of Business Writing**........ 3.0 (3)
Written communication skills are crucial to career and college success. This course demonstrates the need for clear and grammatically correct writing. The course content covers the elements essential to good writing: punctuation, capitalization, numbers, abbreviations, spelling, and word usage. Group 2 course.

**BUS 150 Interpersonal Relations**............. 2.0 (2)
To be well prepared for employment in a global society, employees will require a greater understanding of human relations principles and practices. Individuals who enter the workforce in the 21st Century are discovering that interpersonal skills represent a very important category of “transferable”
skills valued by employers. Topics include “people” skills and attitude traits contributing to success on the job. This course is designed to help you develop a greater understanding of the causes of interpersonal conflict and to make wiser choices when people-related problems arise. Group 2 course.

BUS 156  Essentials of Customer Service........... 1.0 (1)
This course covers the essentials of customer service needed to excel in interactions with internal and external customers. The insights, ideas, and skills that are developed or enhanced in the course will transfer to any work-related situation. Students will learn to create rapport with customers or co-workers and work toward positive outcomes. The primary focus is to help students build personal skills and confidence in their ability to provide customer service that exceeds customers’ expectations. Group 2 course.

BUS 231  Professional Communications............ 3.0 (3)
Prerequisite(s): BUS 130 (students in the Administrative Support Certificate Program must take BUS 130 before BUS 231); ENG 111 is strongly recommended.
Communicating professionally is a critical skill in today’s world. This course is designed to help students understand communication theory and its application in their professional lives. Students will develop effective writing skills by analyzing complex issues, organizing thoughts logically, and communicating those ideas concisely—in verbal and written form. Students will also practice effective listening skills, understand the components of a successful job search, and use teamwork skills in solving communication problems. Group 2 course.

BUS 261  Business Law I .............................. 3.0 (3)
Prerequisite(s): BUS 261
This course is a study of the U.S. legal system and specific areas of law related to business, with an emphasis on the techniques of legal decision-making. Topics include the judicial system, torts, contracts, and criminal law. Group 2 course.

BUS 262  Business Law II .............................. 3.0 (3)
Prerequisite(s): BUS 261
This course is the study of the U.S. legal system and specific areas of law related to business, with an emphasis on the techniques of legal decision-making. Topics include agency, partnerships, corporations, franchises, property, and employer-employee relationships. Group 2 course.

BUS 290  Business Administration Internship ...... 3.0 (3)
Prerequisite(s): 20 credits of business courses with a GPA of 3.0.
This course is an elective for the Associate of Applied Science degree in Business Administration. The purpose of the internship is to provide on-the-job training for the student who wishes to pursue a career in business. The internship will be customized to meet the learning needs of the student and the job requirements of the sponsoring firm. Students spend 10 hours per week in this paid or non-paid, supervised on-the-job training experience. In addition to the required 150 hours in a business site, students participate in semi-monthly seminars. Students must apply one month prior to the semester in which they will complete the internship. Group 2 course.

BUS 292  International Work Experience ............ 3.0 (3)
Internship
American students to Germany (Summer/July-August).
Prerequisite(s): German speaking and writing skills and relevant work experience.
Note: Letters of recommendation from college advisor and work experience coordinator approval are required. Students should contact the work experience coordinator before May 1.
This course is an elective that provides on-the-job training in Germany for U.S. students seeking international work experience. This experience will provide an intercultural, educational, and professional opportunity for students to gain a better understanding of German culture and employment practices. Students are employed on a full-time basis for six weeks. An internship will be customized to meet the learning needs of the student and the job requirements of the sponsoring international firm. Group 2 course.

CAR 101  Introduction to Carpentry................... 3.0 (4)
Recommended Competencies: COMPASS placement into MTH 23 or higher, or co-enrollment in the recommended developmental math course. COMPASS placement into ENG 11/111 or higher, or co-enrollment in the recommended English course.
This course provides an introduction to residential carpentry. Through structured classroom and hands-on skill building, the student will learn about building materials, fasteners, and adhesives, hand and power tools, reading plans and elevations, floor systems. Group 2 course.

CAR 105  Residential Framing ......................... 3.0 (4)
Prerequisite(s): CAR 101
Through structured classroom and hands-on skill building, the student will learn about building materials, framing, interior and exterior finishing, and forming. This course will transfer to any work-related situation. Group 2 course.

CAR 121  General Carpentry Practices ............... 3.0 (4)
Prerequisite(s): CAR 121
Through structured classroom and hands-on skill building, the student will learn about commercial drawings, roofing applications, thermal and moisture protection, exterior finishing, cold-formed steel framing, and drywall installation. Group 2 course.

CAR 125  Interior Carpentry ......................... 3.0 (4)
Prerequisite(s): CAR 121
Through structured classroom and hands-on skill building, the student will learn about drywall finishing, doors and door hardware, suspended ceilings, window, door, floor, and ceiling trim, cabinet installation, and cabinet fabrication. Group 2 course.
CAR 131 Rigging and Concrete Practices ........... 3.0 (4)
Prerequisite(s): CAR 125
Through structured classroom and hands-on skill building, the student will learn about rigging equipment, rigging practices, properties of concrete, reinforcing concrete, handling and placing concrete. Group 2 course.

CAR 135 Site Layout & Formwork .................... 3.0 (4)
Prerequisite(s): CAR 131
Through structured classroom and hands-on skill building, the student will learn about trenching and excavation, foundations and slab-on-grade, vertical formwork, horizontal formwork and tilt-up wall panels. Group 2 course.

CD Child Development

CD 101 Early Childhood Education .................. 3.0 (3)
This course familiarizes students with the history and present state of early childhood education, from birth to 10 years of age. An overview of child development theories is presented in the context of the role of the educator/caregiver. Resources and careers, and contemporary issues such as school readiness and exploration of various education philosophies are also included. Environment observations are required as well as a working general education philosophy. The observations are set by students to meet their schedules. Group 2 course.

CD 202 Human Growth and Development .......... 5.0 (5)
Prerequisite(s): CD 101 or PSY 101
Students will study research, the reasons for child study and its impact on families and education and the issues faced in child development today. Students will explore the dimensions and problems of pregnancy. They will also study the interactions between physical, cognitive, emotional and social developments in children between birth and adolescence. This study will be based on recent research and will be applied using various child development theories. From this, students will develop beginning observation skills and individual based research projects that test theories about child development. Field research is required and set by students to meet their schedules. Students will explore how professional work with and for children is changing and how they can be advocates for the well being of children and families. Group 2 course.

CD 203 Guiding Young Children .................... 3.0 (3)
Prerequisite(s): CD 101 or PSY 101
This course examines the preparation of a positive learning environment. The development and use of equipment with the children from birth through 10 years of age is explored. Special emphasis on the development of techniques in personal interactions with children is also examined. Current concepts and approaches that directly relate to the mental health of the child and his/her family are explored. Anger management and conflict resolution skills are especially emphasized through the building of positive environments. Field observations are required and are set by students to meet their schedules. Group 2 course.

CD 204 Early Childhood Curriculum ............... 3.0 (3)
Prerequisite(s): CD 101
An active learning approach is used to develop student’s skills in planning, implementing and evaluating developmentally appropriate learning experiences for children ages two-and-a-half to 10. Various curriculum areas are covered: science, pre-math, math, drama and music, creative art, sensory, gross and fine motor social studies and language arts. Basic skills and concepts, resource materials and teaching methods (developmental) are explored for each curriculum area. There is a strong emphasis on individualizing curriculum using the child’s interests, modality of learning and intelligence theories. Group 2 course.

CD 206 Infant/Toddler Development ............... 3.0 (3)
Co or Prerequisite(s): CD 101 or instructor permission.
This class provides an in-depth study of the physical, cognitive, social and emotional development of the infant and toddler. There will be a focus on attachment and bonding and how that relates to brain development and later social and academic development. There will also be an emphasis on the connections of pregnancy and early bonding. Students will learn how to build foundation relationships that are trust based. They will also develop skills to help families build a respectful and responsive environment for children. Students will learn how to use best practice methods with infants and toddlers. Group 2 course.

CD 220 Childhood Program Management ........... 3.0 (3)
Prerequisite(s): CD 101 or instructor permission.
This course will examine the administrative fundamentals of early childhood programs and will include establishment, funding, licensing, staffing, budgets, equipment, philosophy and program planning. Group 2 course.

CD 230 Early Language and Literacy ............... 3.0 (3)
Prerequisite(s): CD 101
This course is designed to teach students how to recognize and implement appropriate environmental strategies that support early literacy development and appropriate early experiences with books and writing. Emphasis is placed on speaking and listening, as well as reading and writing readiness. This group of skills includes expressive and receptive language, concepts of print and appreciation of literature, emergent writing, letter knowledge, and phonological awareness. Upon completion of the course, students will be able to select, plan, implement, and evaluate appropriate early literacy experiences. Group 2 course.

CD 290A-E Service Learning Internship 1.0 - 4.0 (1-4)
Prerequisite(s): CD 101
Placement in a daycare, nursery school, early elementary grades in grade school or other agencies that deal with children, birth through 10 years of age. The student will have the opportunity to interact with children, assist with planning for them and evaluate their progress under direct supervision. These credits can be divided over more than one semester. Group 2 course.
CHM 101  Introductory Chemistry .................. 4.0 (3)
CHM 101L Introductory Chemistry Lab ............ 0.0 (2)
Prerequisite(s): MTH 23 or COMPASS equivalent. Students scoring below ENG 111 levels on the COMPASS placement test should plan on additional study time. Students are encouraged to complete ENG 111 before taking the online section of CHM 101.
Corequisite(s): CHM 101 and CHM 101L

A one-semester chemistry course for the non-science major exploring the language, concepts and methods of chemistry. Topics include atomic theory, chemical periodicity, chemical bonding, stoichiometry, gases, nuclear energy, and acid/base chemistry. The laboratory will include descriptive and analytical experiments, focusing on measurement, physical and chemical properties of materials, acids and bases, laboratory techniques and calculations. Science, engineering, and premedical students must select CHM 150 and 151 to meet chemistry requirements. This course is offered in multiple formats such as online or traditional. Consult with an advisor before enrolling. Group 1 lab course.

CHM 150  General Chemistry I ....................... 4.0 (3)
CHM 150L General Chemistry I Lab ................ 0.0 (2)
CHM 150R General Chemistry I, Recitation ....... 1.0 (2)
Prerequisite(s): MTH 111 or COMPASS equivalent
Corequisite(s): CHM 150, CHM 150L and CHM 150R
First semester of a two-semester course covering matter and chemical measurement, basic laws, chemical symbols and formulas, stoichiometry and chemical calculations, gases and the gas laws, thermochemistry, atomic structure, electron configurations and the periodic table, elements, chemical bonding and molecular structure, liquids, solids, intermolecular forces, and modern materials. The laboratory includes descriptive and quantitative experiments illustrating the above topics. The recitation includes problem solving, quizzes and laboratory preparation to accompany lectures. Group 1 lab course.

CHM 151  General Chemistry II ...................... 4.0 (3)
CHM 151L General Chemistry II Lab ............... 0.0 (2)
CHM 151R General Chemistry II Recitation ....... 1.0 (2)
Prerequisite(s): CHM 150
Corequisite(s): CHM 151, CHM 151L and CHM 151R
A second semester course covering chemical reactions in aqueous solution including acid-base and oxidation and reduction reactions, properties of solutions, atmospheric chemistry, chemical kinetics, gaseous equilibria, acids and bases, acid-base equilibria, pH, common ion effect, buffer systems, solubility product constant, thermo-dynamics, enthalpy, entropy and free energy, electro-chemistry, nuclear, organic, and coordination chemistry. The laboratory will cover the above topics using quantitative and qualitative procedures. The recitation includes problem solving, quizzes, and laboratory preparation to accompany lectures. Group 1 lab course.

CHM 250  Organic Chemistry I ....................... 5.0 (3)
CHM 250L Organic Chemistry I Lab ................ 0.0 (6)
Prerequisite(s): ENG 111, CHM 151
Corequisite(s): CHM 250 and CHM 250L
The first semester of a two-semester course covering the chemistry of carbon compounds. Designed to meet the requirements for majors in chemistry, chemical engineering, biological science, pre-medicine, etc. Topics include nomenclature, structure, aliphatic compounds, free-radical, nucleophilic substitution and elimination reactions, electrophilic addition reaction and mechanisms, alkyl halides, alkenes and alkynes. The laboratory portion will cover fundamental organic laboratory techniques of synthesis, separation and analysis. Specific assignments parallel lecture topics wherever possible. Group 1 lab course.

CHM 251  Organic Chemistry II ...................... 5.0 (3)
CHM 251L Organic Chemistry II Lab ............... 0.0 (6)
Prerequisite(s): ENG 111, CHM 250
Corequisite(s): CHM 251 and CHM 251L
A follow up to CHM 250. Topics include alcohols, aromatics, ethers and epoxides, arenes, carbonyls, carboxylic and sulfonic acids and their derivatives, amines, phenols, aryl halides, carbohydrates, amino acids, biochemical processes, polynuclear aromatics, heterocycles, and others together with appropriate mechanistic theories and structural concepts. Instrumental techniques discussed include infrared spectroscopy (IR), nuclear magnetic resonance (NMR), mass spectrometry (MS), and ultraviolet (UV) spectroscopy. The lab exercises will continue the development of organic chemistry laboratory technique on both semi-microscale and microscale. In addition, analytical techniques using infrared spectroscopy and gas chromatography will be developed. Group 1 lab course.

Visit www.nmc.edu/science-math for more detailed information.
CIT 100  Computers in Business-An Intro ........... 3.0 (3)
Prerequisite(s): Keyboarding skills required.
A first exposure to the world of computers, this course covers basic concepts and terminology. It is suitable for the information systems student or anyone wishing to gain computer knowledge. Hands-on use of computer applications—word processing, spreadsheets, database, and presentation graphics. In addition, exposure to the Windows operating system and web page development will be a part of the class. Topics such as hardware, software, data communications, programming development and languages, the development of computing, and emerging trends will be covered. Group 2 course.

CIT 109A  Keyboarding I ................. 2.0 (2)
Prerequisite(s): CIT 109A or instructor permission.
Whether for personal or business use, knowledge of keyboarding is a must today. This course introduces you to the computer keyboard. Areas of emphasis include touch keyboarding of letters, numbers, and symbols. Students who already have the above skills may bypass CIT 109A and enroll in CIT 109B. This class is offered in the OPEN and/or online format. Group 2 course.

CIT 109B  Keyboarding II ................. 2.0 (2)
Prerequisite(s): CIT 109A or instructor permission.
Continuation of keyboarding skills development which have been acquired in either CIT 109A or previous keyboarding experience. Emphasis on computers and word processing software used in the application of keyboarding skills for personal and business situations. Intensive drill work for speed and accuracy improvement, and use of numeric keypad are also included. This class is offered in the OPEN and/or online format. Group 2 course.

CIT 110  Programming Logic and Design .......... 2.0 (2)
Prerequisite(s): CIT 109A, CIT 120A, CIT 120B, CIT 121A, CIT 110
This course will prepare the student for programming courses. Topics covered include flow charting, pseudocode, modularization, decisions and looping program constructs, arrays, and events. Object-oriented programming is introduced. Lecture topics will be reinforced with hands-on coding, testing, debugging, and documentation exercises. Group 2 course.

CIT 111  Keyboarding III .................... 4.0 (4)
Prerequisite(s): CIT 109B, CIT 120A, CIT 120B, CIT 121A, CIT 121B
Learn advanced skills and techniques to format a wide variety of professional-looking business documents. Emphasis is on timesaving features to produce enhanced documents efficiently and accurately using word processing software. Supplementary skill-building drills are used to improve production techniques, keyboarding accuracy, and speed. Group 2 course.

CIT 120A  Microsoft Word Level IA .......... 1.0 (1)
Prerequisite(s): Basic keyboarding and Windows skills.
A one-credit course that focuses on the basic skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include preparing documents, formatting characters and paragraphs, customizing paragraphs, and formatting pages. The instructional goal of this course is to prepare students for the MCAS exam in Word. The exam is separate from this course. Group 2 course.

CIT 120B  Microsoft Word Level IB .......... 1.0 (1)
Prerequisite(s): CIT 120A or equivalent experience.
A one-credit course that continues focus on the basic skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include applying formatting and inserting objects, maintaining documents, creating tables and SmartArt, and merging documents. The instructional goal of this course is to prepare students for the MCAS exam in Word. The exam is separate from this course. Group 2 course.

CIT 121A  Microsoft Word Level IIA .......... 1.0 (1)
Prerequisite(s): Word Specialist Certificate, or CIT 120B, or equivalent experience.
A one-credit course that focuses on the advanced skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include customizing paragraphs and pages, proofing documents, automating and customizing formatting, and customizing and navigating in a document. The instructional goal of this course is to prepare students for the MCAS exam in Word and the exam is separate from this course. Group 2 course.

CIT 121B  Microsoft Word Level IIIB .......... 1.0 (1)
Prerequisite(s): CIT 121A or equivalent experience.
A one-credit course that continues to focus on the advanced Word skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include inserting special features and references, creating specialized tables and indexes, working with shared documents, and protecting and preparing documents. The instructional goal of this course is to complete student preparation for the MCAS exam in Word. The exam is separate from this course. Group 2 course.

CIT 122A  Computer and Internet Basics I .......... 1.0 (1)
Prerequisite(s): CIT 122A
Students will learn the essential skills required to use a computer with the Windows operating system. The student will learn to interact with the Windows desktop to access software and data. The course emphasizes the importance of file and folder maintenance. The course also includes introductions to the World Wide Web, e-mail and searching. Students completing this course will master skills required for on-line courses. Group 2 course.

CIT 122B  Computer and Internet Basics II ........ 1.0 (1)
Prerequisite(s): CIT 122A
Students will learn additional skills required to use a computer and the Internet effectively. Additional experience with applications, object linking, and embedding is included. Students will investigate administrative and management tools with specific emphasis on security. Students will create and publish basic web pages using HTML. Group 2 course.
CIT 124A  Microsoft PowerPoint Level IA  1.0 (1)
Recommended Competencies: Basic keyboarding and Windows skills.
A one-credit course that focuses on the basic PowerPoint skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include creating tables, charts and SmartArt graphics, using slide masters and action buttons, applying custom animation and setting up shows, and integrating, reviewing, protecting and saving presentations. The instructional goal of this course is to prepare students for the MCAS exam in PowerPoint. The exam is separate from this course. Group 2 course.

CIT 124B  Microsoft PowerPoint Level IB  1.0 (1)
Prerequisite(s): CIT 124A or equivalent experience.
A one-credit course that continues to focus on the PowerPoint basic skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include creating tables, charts and SmartArt graphics, using slide masters and action buttons, applying custom animation and setting up shows, and integrating, reviewing, protecting and saving presentations. The instructional goal of this course is to prepare students for the MCAS exam in PowerPoint. The exam is separate from this course. Group 2 course.

CIT 125  Microsoft Outlook  2.0 (2)
Recommended Competencies: Basic keyboarding and Windows skills
A two-credit course that focuses on the Outlook skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include creating calendars for scheduling, managing contacts, creating tasks and notes, and customizing, integrating, and archiving Outlook components. The instructional goal of this course is to prepare students for the MCAS exam in Outlook. The exam is separate from this class. Group 2 course.

CIT 126  Microsoft Access Level I  2.0 (2)
Recommended Competencies: Basic keyboarding and Windows skills.
A two-credit course that focuses on the basic Access skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include creating database tables, creating relationships between tables, modifying and managing tables, performing queries, creating forms, creating reports and mailing labels, modifying, filtering and viewing data, and importing and exporting data. The instructional goal of this course is to prepare students for the MCAS exam in Access. The exam is separate from this course. Group 2 course.

CIT 127  Microsoft Access Level II  3.0 (4)
Prerequisite(s): CIT 126
This course focuses on the advanced Access skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include designing table structure, designing and building relationships, advanced queries, creating customized forms, creating customized reports, using Access tools and objects, automating and securing Access, and integrating Access data. The instructional goal of this course is to prepare students for the MCAS exam in Access. The exam is separate from this course. Group 2 course.

CIT 128  Microsoft Excel Level I  2.0 (2)
Recommended Competencies: Basic math, keyboarding, and Windows skills.
A two-credit course that focuses on the basic Excel skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include preparing an Excel workbook, inserting formulas in a worksheet, formatting an Excel worksheet, enhancing a worksheet, moving data within and between workbooks, maintaining workbooks, creating charts, and adding visual interest to workbooks. The instructional goal of this course is to prepare students for the MCAS exam in Excel. The exam is separate from this course. Group 2 course.

CIT 129  Microsoft Excel Level II  2.0 (2)
Prerequisite(s): Excel Specialist Certificate, CIT 128, or equivalent experience.
A two-credit course that focuses on the advanced Excel skill sets for Microsoft Certified Applications Specialist (MCAS) certification. The skill sets include advanced formatting, advanced functions and formulas, working with tables and data features, summarizing and consolidating data, data analysis features, protecting and sharing workbooks, automating repetitive tasks and customizing Excel, importing, exporting and distributing data. The instructional goal of this course is to complete student preparation for the MCAS exam in Excel. The exam is separate from this class. Group 2 course.

CIT 140  .NET Application Programming  3.0 (3)
Prerequisite(s): CIT 110 is strongly recommended.
The student is introduced to .NET application development. Students use Visual Studio to develop MS Windows applications. Application features will include basic input and output, variables, collections, menus, and integration with databases. Object-oriented concepts, application design, program structure and proper documentation are also covered. Group 2 course.

CIT 155  Personal Computer Maintenance  2.0 (3)
This course presents a detailed look inside the personal computer. Maintenance and system upgrades will be performed. System resource management will be covered along with installation of hard drives, CD-ROM, sound cards and modems. Group 2 course.

CIT 156  CompTIA A+® Certification I  3.0 (4)
This course, in conjunction with CIT 157, covers the objectives of the CompTIA A+ IT Technician Certification exams. CIT156 concentrates primarily, but not exclusively, on the Essentials exam requirements, including: personal computer components, laptop and portable devices, operating systems, printers and scanners, networks, security, safety and environmental issues, communication and professionalism. Group 2 course.
CIT 157 CompTIA A+® Certification II ............. 3.0 (4)
This course, in conjunction with CIT 156 covers the objectives of the CompTIA A+ IT Technician Certification exams. CIT157 concentrates primarily, but not exclusively, on the IT Technician exam requirements, including: personal computer components, laptop and portable devices, operating systems, printers and scanners, networks, security, safety and environmental issues, communication and professionalism.

Group 2 course.

CIT 160 Cisco Internetworking I ..................... 4.0 (4)
Prerequisite(s): CIT 160
This course, in conjunction with CIT 161, CIT 260, and CIT 261, provides the necessary preparation to pass the Cisco CCNA Exam (Cisco Certified Network Associate). The following topics are covered in detail: The OSI Model, LAN topologies and protocols, logical addressing and internetworking devices. This course is part of the Cisco Systems Networking Academy Program and will integrate online curriculum, classroom activities and hands-on lab exercises. Group 2 course.

CIT 161 Cisco Internetworking II ...................... 4.0 (4)
This course, in conjunction with CIT 160, CIT 260, and CIT 261, provides the necessary preparation to pass the Cisco CCNA Exam (Cisco Certified Network Associate). The following topics are covered in detail: Cisco CLI, IOS, router configuration, routing protocols and Access Control Lists. This course is part of the Cisco Systems Networking Academy Program and will integrate online curriculum, classroom activities and hands-on lab exercises. Group 2 course.

CIT 210 Electronic Spreadsheets ....................... 3.0 (3)
This course will focus on the use of Microsoft Excel as an integral part of an individual's career. Topics covered include the use of Excel as a word processor, online data entry, formula creation, charting, data management, and printing. Students will create and modify Access objects, and an introduction to macros will be covered.

Group 2 course.

CIT 211 Web APP Programming ASP .NET ........... 3.0 (3)
Prerequisite(s): CIT 110, CIT 212, CIT 217, and CIT 220, or instructor permission.
In this course students develop skills in HTML and XHTML web publishing. Students create web pages with variations in web browsers and accessibility requirements in mind. Students develop skills using cascading style sheets and briefly use JavaScript automation.

Group 2 course.

CIT 212 Intro. to Database Management ............. 3.0 (3)
Prerequisite(s): Windows file management skills.
This course introduces database management using Microsoft Access. Students will learn to create and modify Access objects including tables, queries, forms, and reports. Relational database concepts including normalization and data integrity are stressed. An introduction to application development and database security are included. Group 2 course.

CIT 213 Networking Technologies .................... 4.0 (4)
Corequisite(s): CIT 155 or CIT 156 and CIT 157, or instructor permission.
This course covers terminology, topologies and media necessary for LANs and WANs. The OSI model will be studied and identified to better enhance the understanding of how various parts work together. Included is an indepth study of TCP/IP and the characteristics for maintaining a network, and ensuring its security. This course maps to the CompTIA Network+® certification exam objectives. Group 2 course.

CIT 215 Windows Server Environment .............. 3.0 (3)
Prerequisite(s): CIT 213 or instructor permission.
This course maps to the Microsoft MCTS Windows Active Directory exam. Concepts of electronic business communications and local area networks will be covered. The current Windows Server operating system will be used and studied in this course. Installation of network operating system, setup of users and groups, files and folder trustee rights, and console management will be covered. Group 2 course.

CIT 216 Computerized Acctg. Systems .............. 2.0 (2)
This course is designed to give the student experience with setting up an accounting system on the computer. QuickBooks software will be used. Accounts receivable, accounts payable, general ledger, inventory, and payroll will be covered. It is recommended that ACC 121 be taken before this class.

Group 2 course.

CIT 217 XHTML Programming ....................... 2.0 (2)
Prerequisite(s): CIT 110 and Windows file management skills, or instructor permission.
In this course students develop skills in HTML and XHTML web publishing. Students create web pages with variations in web browsers and accessibility requirements in mind. Students develop skills using cascading style sheets and briefly use JavaScript automation.

Group 2 course.

CIT 220 XML Programming .......................... 2.0 (2)
Prerequisite(s): CIT 217
Students will be introduced to Extensible Markup Language (XML) technology. Students will learn to design field-specific markup language describing both the data and its structure. The resulting XML document will be presented in multiple formats by applying XSLT transformations.

Group 2 course.

CIT 230 Systems Analysis & Design ................. 3.0 (3)
Students should have successfully completed a min. of 12 semester hours of CIT courses, including at least one programming course. This course is the capstone course in the CIT Developer and CIT General associate degree programs. It introduces the student to the phases in the systems development life cycle. Students will gain practical knowledge in systems analysis through participation in a team-based system development project.

For course availability, refer to www.nmc.edu/schedule or the Schedule of Classes.
Students will conduct a feasibility study, perform requirements analysis, and model objects and data. In this course, students will apply their knowledge of database design and programming, and they will create a user-interface using elements of both traditional and modern systems analysis methodologies. Group 2 course.

CIT 233  Project Management .............................. 3.0 (3)
Prerequisite(s): Windows knowledge.
This course is intended for CIT students and business professionals who need to manage project activities or resources on time, on budget, and according to performance standards. Students use Microsoft Project as a project management tool to schedule tasks, and monitor resources, costs, and project progress. Group 2 course.

CIT 240  Network Security Management.............. 3.0 (3)
Prerequisite(s): CIT 161 or CIT 213 or instructor permission.
This course examines the fundamentals of computer network security and explores current practices for securing network resources. Course content is mapped to the CompTIA Security+ certification exam objectives, which include general security concepts, communication security, infrastructure security, cryptography and operational/organizational security. Group 2 course.

CIT 242  Windows Client Administration .......... 2.0 (2)
Recommended Competencies: Basic Windows skills.
In this course students will study the Windows Client operating system. Course topics include: installing Windows; implementing and conducting administration of resources; implementing, managing, monitoring, and troubleshooting hardware devices and drivers; configuring and troubleshooting the desktop environment; implementing, managing, and troubleshooting network protocols and services. Group 2 course.

CIT 246  Windows Server Infrastructure............. 3.0 (3)
Prerequisite(s): CIT 215
Students taking this course will learn how to setup, configure, and maintain a Windows Server Infrastructure. Topics covered include administering, diagnosing, and troubleshooting DHCP, DNS, network security, routing and remote access, and system performance. This course maps to the Microsoft MCTS Windows Server Infrastructure test objectives. Group 2 course.

CIT 247  Windows Server Administration .......... 3.0 (3)
Prerequisite(s): CIT 215, CIT 246
Students taking this course will learn how to manage day-to-day server operations. Server administrators manage the infrastructure, web, and IT application servers. Students will use batch and script files to perform many administrative tasks. Tasks performed include software distribution, server updates, profiling and monitoring, and troubleshooting. Many of these tasks will be performed using terminal server and administrative tools. This course maps to the Microsoft MCITP Windows Server Administration test objectives. Group 2 course.

CIT 248  SQL Server Databases .......................... 3.0 (3)
Prerequisite(s): CIT 212 or instructor permission.
Microsoft SQL Server is used in this course to introduce students to enterprise database analysis and administration tasks. Students focus on performance, scalability, reliability, and security as they normalize database designs, enforce data integrity, create indexes and stored procedures, optimize queries, and control database access. Group 2 course.

CIT 255  .NET Object-Oriented Programming...... 3.0 (3)
Prerequisite(s): CIT 140
The student builds on .NET programming fundamentals learned in CIT 140, focusing on object-oriented concepts throughout the course. The definition and use of classes with multiple properties, methods, and constructors is covered early. The student implements encapsulation, inheritance and polymorphism while creating several applications in Visual Studio .NET. Group 2 course.

CIT 260  Cisco Internetworking IV................... 4.0 (4)
Prerequisite(s): CIT 161
This course, in conjunction with CIT 160, CIT 161, and CIT 261, provides the necessary preparation to pass the Cisco CCNA Exam (Cisco Certified Network Associate). The following topics are covered in detail: VLSM, LAN switching, VLANs, VTP, EIGRP, OSPF, RIP2, and WANs. This course is part of the Cisco Systems Networking Academy Program and will integrate online curriculum, classroom activities and hands-on lab exercises. Group 2 course.

CIT 261  Cisco Internetworking V.................... 4.0 (4)
Prerequisite(s): CIT 260
This course, in conjunction with CIT 160, CIT 161, and CIT 260, provides the necessary preparation to pass the Cisco CCNA Exam (Cisco Certified Network Associate). The following topics are covered in detail: WAN design, PPP, ISDN, frame relay, ATM, cable, NAT/PAT, network management and CCNA exam review. This course is part of the Cisco Systems Networking Academy Program and will integrate online curriculum, classroom activities and hands-on exercises. Group 2 course.
CIT 290  CIT Internship ................................. 3.0  (3)
Prerequisite(s): 20 credits with a minimum of 3.0 GPA in CIT courses and departmental approval.
Work experience is an integral part of the CIT student's program. Students are placed in settings that utilize their business and CIT skills. Students spend 10 hours per week in this paid or non-paid, supervised on-the-job training experience. In addition to the required 150 hours in a CIT site, students participate in semi-monthly seminars. Students must apply one month prior to the semester in which they will complete the internship. Group 2 course.

CIT 292  Support Specialist Internship ............. 3.0  (3)
Prerequisite(s): 27-30 hours in the Support Specialist Certificate.
Work experience is an integral part of the Support Specialist Certificate student's program. Students are placed in settings that utilize their technical, business applications and interpersonal relations skills. Students spend 10 hours per week in this paid or non-paid, supervised on-the-job training experience. In addition to the required 150 hours in a job situation, students participate in weekly seminars. Students must apply one month prior to the semester in which they will complete the internship. Group 2 course.

CJ 101  Intro to Criminal Justice ...................... 4.0  (4)
The student is introduced to the criminal justice system and the criminal justice process. Includes the history, present structure, current functions and contemporary problems of the police, the prosecution, the courts, corrections, and security agencies. Group 2 course.

CJ 211  Criminal Law .................................... 3.0  (3)
This offering will study Constitutional law and the Bill of Rights as they directly relate to the powers and the limitations of both federal and state law enforcement officers. Current judicial case histories are studied so as to better understand the changes in enforcement policies. The judicial process is reviewed from time of arrest, arraignment, pre-trial, and trial procedure to the final determination of the case. This course is offered spring semester. Group 2 course.

CJ 241  Interview & Interrogation ..................... 3.0  (3)
Prerequisite(s): CJ 101
This course will present techniques and methods of obtaining information from victims, witnesses and suspects. It also deals with the laws and court precedents relative to confessions, statements, and admissibility. Group 2 course.

CJ 242  Evidence & Criminal Procedures ............ 3.0  (3)
An overview of the criminal court system and the process of a criminal proceeding from incident to disposition and appeal, including the rules of evidence affecting the trial of a criminal case. It also includes an overview of the criminal procedure rules concerning arrest, search and seizure, and interrogation and confession, which regulate law enforcement and protect citizens' rights of privacy and presumed innocence. The course includes pertinent Supreme Court decision. Group 2 course.

COM 101  Introduction to Communication .......... 4.0  (4)
Designed to introduce the student to the basic components of the communication process, this course emphasizes interpersonal communication, perception, meaning, theory, and an introduction to mass communication. The direct application of theories to the student's individual career choice or personal life experience is stressed. Group 2 course.

COM 111  Public Speaking .............................. 4.0  (4)
Designed to acquaint students with the fundamentals of the discipline and to give them confidence in speech situations, this course considers voice, platform technique, message organization and audience analysis. Emphasis is upon the formal speaking situation. Group 2 course.

COM 121  Broadcasting Practicum I ................. 2.0  (2)
Practical experience in underwriting, announcing, script writing, "on-air" studio operations and the management of the non-profit college radio station are all part of this course. Internships with local radio stations may be arranged. Group 2 course.

COM 122  Broadcasting Practicum II ............... 2.0  (2)
This course continues practical experience in underwriting, announcing, script writing, “on-air” studio operations and management. Internships with local radio stations may be arranged. Group 2 course.

COM 201  Mass Comm. & Culture ................... 4.0  (4)
This course presents various perspectives on the analysis, evaluation and understanding of communication in mass culture. Emphasis is on critical thinking and analysis of communication situations with relevance to the student's individual career choice or life experience. Group 2 course.
CUL Culinary Arts

CUL 101 Today's Hospitality Industry ...................... 3.0 (3)
This course is designed for students who wish to pursue a career in the hospitality industry. It introduces the student to segments of the industry and the different career tracts within each one. The course will acquaint the student with the rigors of hospitality and the particular nature of this people-oriented industry. A foundation course in the study of resort and resort settings, the course provides the student with an awareness of the unique problems associated with the development, management and marketing of a resort. Also, the seasonal nature of most resorts and the challenges presented by this issue are discussed. The nature and unique characteristics of the hospitality industry as a career choice are discussed. Group 2 course.

CUL 110 Safety & Sanitation ............................... 2.0 (2)
This course is designed for students who wish to pursue a career in culinary arts or hotel and restaurant management. With today's complex safety and health laws, it is essential as well as required by many firms to have an indepth understanding and certification in safety and sanitation. This course provides the students with both. Students study food service safety, including fire safety. Students will earn an American Red Cross Certificate in adult CPR. Students also earn all aspects of food service sanitation and earn the NRAEF ServeSafe Certificate. Group 2 course.

CUL 111 Professional Cookery ............................ 6.0 (12)
Corequisite(s): CUL 110 or instructor permission.
An intensive study of foods and cooking, this course exposes the student to commercial equipment, quality food production, and professional presentation. It provides the student with the practice and theory involved in the preparation of foods in a commercial operation. Basic cooking terminology, methods and procedures are introduced. The course also includes kitchen safety and sanitation, knife and equipment identification and technique, preparation of stocks, soups and mother sauces, meats, poultry and seafood, and the presentation of a complete meal. Uniforms and knives will need to be purchased through the department for this course.
Group 2 course.

CUL 118 Introduction to Baking .............................. 4.0 (8)
This course is designed for students seeking a career in Culinary Arts. In this intensive study of fundamental baking techniques, students will become familiar with baking operation and production. This course covers fundamental pastry and dessert recipes as well as the preparation of yeast dough.
Group 2 course.

CUL 121 Purchasing and Receiving ....................... 2.0 (2)
An overview of how food is purchased, received, stored and distributed is discussed in this course. Focus is on product identification, availability, seasonality, price, quality, and freshness. The course also includes the purchasing practices and controls that help to insure a correct product specification. Proper forms for ordering, issuing, inventory, and cost controls are used. Group 2 course.

CUL 190 Culinary Internship ............................. 2.0 (2)
Prerequisite(s): CUL 110, CUL 111, CUL 118, CUL 213, or Culinary staff approval.
A culinary internship integrates academics with professional work experience. Students earn college credit while working in fine dining properties, gaining valuable hands-on experience. Students are encouraged to contact the internship coordinator at least two months prior to the semester they are requesting placement. Culinary internships are 40 hours per week for an eight-week summer session. Group 2 course.

CUL 210 Nutrition for Culinary Arts ..................... 2.0 (2)
This course is designed for students who wish to pursue a career in culinary arts. Healthy eating is attracting more attention as Americans struggle with the problems of obesity and disease prevention. In this atmosphere it is essential for prospective chefs to be aware of the needs of their customers. This course presents the principles of nutrition within the context of professional food preparation. Various ingredients and their role in good nutrition, spa cuisine, planning healthy menus and alternative eating styles are discussed.
Group 2 course.

CUL 211 Menu Planning ................................. 3.0 (3)
No one will argue that the menu is the soul of a restaurant. This course provides the student with the understanding of the menu as the center of the food outlet, around which is built the facility. Menu theme is the driver for equipment purchases, staffing, location and floor plan. An understanding of this complex item is vital to anyone involved in food service. This course is designed to familiarize the student with all aspects of planning a modern menu - from market research to the physical layout of the document. Various types of menus are covered including A’La Carte, Table d’Hote, Institutional and Special Occasion. Menus will be analyzed for effectiveness and pricing strategies. Group 2 course.

CUL 213 World Cuisine ................................. 6.0 (12)
Prerequisite(s): CUL 111
Corequisite(s): CUL 118 or instructor permission.
This course is designed for the student who wishes to be a professional chef. It comprises the study, preparation and presentation of foods and cooking methods from selected countries. These countries have been selected based on their current popularity in restaurants. In this course, students develop a knowledge and basic understanding of ethnic cooking including the cooking styles of Italy, France, Mexico, China, and various other Asian and American regions. In the process of learning these multi-national cuisines, the student develops additional technical skills in the preparation of the different foods. Group 2 course.

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CUL 215  Garde Manger................................. 4.0  (8)
Prerequisite(s): CUL 110, CUL 111, CUL 213, CUL 118
This course is designed for students who wish to pursue a career in culinary arts. As America’s sophistication regarding food has increased, it is essential that students training to be chefs be exposed to the most up-to-date cooking and presentation techniques. Students prepare cold foods for display: pates, galantines, terrines and mousses. Decorative garnishes and other functional banquet presentations are covered in this course. Meat and seafood fabrication is also practiced. Projects made will be used and displayed at various functions and events held at the Great Lakes Campus and at other special occasions. Group 2 course.

CUL 217  Kitchen & Dining Room Mgmt .................. 3.0  (3)
Prerequisite(s): CUL 101 or instructor permission.
This course is designed for students who wish to pursue a career in the food service industry. Its focus is the control of the dynamics of the kitchen and dining room in a modern restaurant. In the highly competitive restaurant business, it is necessary for prospective food and beverage professionals to have a thorough understanding of this aspect of the industry. Many restaurants fail because of a lack of coordination between the front and back of the house. The course focuses on the basic principles of management as applied to kitchen and dining room situations. Other topics include TQM management techniques, team building, motivational techniques, stress management, production management, and styles of table service. Group 2 course.

CUL 218  Advanced Baking .................................. 4.0  (8)
Prerequisite(s): CUL 111 and CUL 118
This course is designed for students seeking a career in Culinary Arts. In this intensive study of advanced baking techniques, students will become familiar with baking operation and production as well as dessert and pastry finishing and plate presentation. This course covers more advanced pastry and dessert recipes as well as the preparation of yeast dough. Pastries, desserts and dessert sauces will be served to guests at Lobdell’s, the Great Lakes Culinary Institute’s teaching restaurant. Cake icing and finishing is also included as are tortes, mousses, Bavarians, tarts and other desserts. Group 2 course.

CUL 295  Contemporary Service & Cuisine ....... 12.0  (24)
Prerequisite(s): CUL 110, CUL 111, CUL 118, CUL 213, basic keyboarding and computer skills required.
This course focuses on practical hands-on training. Students rotate through the front-of-the-house and the restaurant kitchen in this intensive semester-long course. Front-of-the-house students learn various styles of table, wine and beverage service. Menu merchandising is stressed throughout the course. Guest relations and timing of service are also emphasized as advanced students serve lunch to guests in Lobdell’s, the Great Lakes Culinary Institute’s teaching restaurant. Heart-of-the-house students learn classical food preparation preparing designated menu items. Other areas covered include recipe construction and costing, the use and care of equipment, the pressure of a la carte preparation and service, and the effective handling and use of supplies. Group 2 course.

DNC 101  Beginning Dance: An Exploration.......... 2.0  (4)
Prerequisite(s): CUL 110, CUL 111, CUL 213, CUL 118
This course is designed to introduce the major disciplines of dance: ballet, jazz, and modern. Basic dance skills will be acquired through the practice of exercises, steps, and techniques. This course is designed for those with little or no background in dance. Group 2 course.

DNC 110  Modern Dance I............................... 2.0  (4)
Prerequisite(s): DNC 101 or previous experience.
This course is designed to introduce students to the physical training and the creative thought process involved in executing modern dance as an art form. This course will consist of technique, improvisation, and creative problem solving through movement. Modern dance and its relationship to music and the historical development of modern dance will also be explored. Group 2 course.

DNC 111  Modern Dance II............................. 2.0  (4)
Prerequisite(s): DNC 110 or previous experience.
This course is designed as an extension of Modern Dance I. This class will consist of increasing proficiency in modern dance through extended studies in technique, improvisation, creative problem solving, and performance. Dance history and motif writing in dance will also be explored. Group 2 course.

DNC 120  Choreography & Performance................ 2.0  (2)
Prerequisite(s): DNC 101 or instructor permission.
Study choreography by participating in an instructor-led choreographed dance, created through structured improvisation and creative problem-solving techniques. Students will also create and develop their own dances through the exploration of a wide range of approaches to choreography. Performance and its relationship to community and cultural values will also be explored. The culmination of the class work will be a dance performance for the public. Group 2 course.
DD Drafting & Design

DD 101 Print Reading and Sketching .......................... 3.0 (4)
Students will learn to read engineering drawings of products and tooling used in today's manufacturing. Basic drawing format and layout are presented using product, tooling, and detail drawings. Students will learn methods of three dimensional shape description, dimensioning, and tolerancing. Types of fasteners along with related terminology and manufacturing processes are presented. An overview of common manufacturing processes, material specifications, and welding symbols are presented. Students will learn the presentation skills of orthographic projection, isometric and oblique pictorial drawings using straight line and free hand sketches. Group 2 course.

DD 110 Basic Metallurgy ........................................... 3.0 (3)
This course presents the making and forming of steel and the classification of steel and cast iron. Mechanical and physical properties are presented along with hardness and tensile testing labs. Principles of alloying, crystal structure, and the iron-carbon diagram help students understand how annealing, hardening, and tempering processes alter the mechanical properties of steel. Non-ferrous metallurgy is presented with an emphasis on aluminum. Group 2 course.

DD 120 Computer Aided Drafting (AutoCAD) ................ 2.0 (3)
Students generate two-dimensional mechanical and architectural drawings using AutoCAD LT software. Templates are created to start new drawings with pre-set configurations and styles. Drawing and editing commands are stressed as students generate work-sheets and assignments creating various types of drawing views in architectural, inch, and metric units. Drawing archives and plotting are done in a network environment simulating a business. DD 101 is highly recommended to be taken with or before this course. Group 2 course.

DD 125 Mechanical Drafting (AutoCAD) ...................... 2.0 (3)
Prerequisite(s): DD 120
Students generate two-dimensional mechanical drawings using AutoCAD LT software with an emphasis on the manufacturing/tooling industry. Drawings include multi-view orthographic projection, section views, and auxiliary views with an emphasis on dimensioning methods and practices. Students also create isometric and oblique pictorial drawings. American National Standards Institute and American Society of Mechanical Engineers standards are stressed. Group 2 course.

DD 130 Architectural Drafting I (AutoCAD) .................. 2.0 (3)
Prerequisite(s): DD 120
This course is an introduction to architectural drafting using AutoCAD software. Emphasis is placed on the development of sound architectural drafting techniques while learning to apply the AutoCAD software. Students will generate a set of working drawings for a residential project including: floor plan, foundation plan, sections, elevations, etc. Group 2 course.

DD 131 Architectural Drafting II (AutoCAD) ............... 4.0 (6)
Prerequisite(s): DD 130
This course is a continuation of methods and techniques presented in DD 130. Areas of major emphasis include site planning, building materials, residential structural systems, and construction techniques. AutoCAD concepts of external references and paper space will be utilized as the student generates a set of residential working drawings. Group 2 course.

DD 150 Detail Drafting ............................................ 4.0 (6)
Prerequisite(s): DD 125
Students generate detail drawings of tooling assemblies with the application of dimensioning and tolerancing. Computer aided drafting software is used to produce drawings. Students work in a network environment simulating a tool design department of a parts manufacturer. Both inch and metric projects will be completed to corporate, national, and international standards. Projects will progress from static to dynamic assemblies. Group 2 course.

DD 160 Tolerancing and GD&T ............................... 3.0 (3)
Prerequisite(s): DD 101
This course first presents conventional tolerancing terminology, expressions, and accumulations in both inch and metric formats. Next, Geometric Dimensioning and Tolerancing (GD&T) presents an international system of symbols used to dimension product or tooling components. The course is based on the current ASME Y14.5M Dimensioning and Tolerancing standard. Engineers, designers, drafters, cost estimators, machinists, and inspectors must understand this system. Students study actual product drawings and make design sketches of workholding and inspection devices. Group 2 course.

DD 170 Part and Assembly Modeling ......................... 4.0 (6)
Prerequisite(s): DD 125
This course introduces SolidWorks features necessary to create, edit, analyze, and plot 3D models and 2D drawings. Upon successful completion, students will be able to construct 3D part and assembly models of moderate complexity, create animated presentations, and generate 2D detail drawings and assembly drawings with balloons and bill of materials. Students must already possess basic computer aided drafting skills by successfully completing DD 125 or equivalent skills. Group 2 course.

DD 240 Advanced Part and Assy Modeling .................. 4.0 (6)
Prerequisite(s): DD 170
This course presents advanced modeling concepts using SolidWorks software. Topics include multi-body solids, curves, 3D sweeps, lofts, surfaces, core and cavity molds, top-down assembly modeling, advanced assembly mates, configurations of assemblies, assembly design tables, assembly editing, troubleshooting, assembly problems, working with subassemblies, advanced sectioning techniques, large assemblies, PhotoWorks, Toolbox, and eDrawings. Students will create part and assembly models which require the application of the concepts and techniques listed above. Group 2 course.

For course availability, refer to www.nmc.edu/schedule or the Schedule of Classes.
DD 290  Drafting Internship ......................... 3.0 (3)
Prerequisite(s): DD 240, a 3.0 minimum GPA in technical courses and instructor permission.
The Drafting Internship will provide on-the-job training for the student pursuing a career in Drafting. The appropriate site will be chosen based on the specific sector the student indicates as their field of choice in the manufacturing drafting industry. Students will spend 20 hours per week in this paid or unpaid internship for a full 15 week semester. In addition to the 300 hours on the job, the students will be required to attend bi-weekly seminars for additional skills training, group discussion and debriefing. Bi-weekly reports indicating job specific skills will be submitted to the internship coordinator. Group 2 course.

DD 295  Advanced Manufacturing Project......... 4.0 (6)
Prerequisite(s): DD 240, MFG 212
This course provides a capstone experience for Advanced Manufacturing students. They will work in teams to design, fabricate, assemble, and evaluate a mechanical assembly. Teams will be assigned a specific mechanism with stated parameters. The project will require continuous documentation in the form of a project plan with assigned duties and time lines, 3D models with mechanical drawings, process sheets, CNC programs, and inspection reports. Group 2 course.

ECO 121  Basic Economics .......................... 3.0 (3)
This introductory course in economics will survey the principles, history, organization, and problems of the American economy. Micro and macro economic topics will be covered including: supply and demand, unemployment, inflation, the role of government, money and banking, the household and business sectors, competition and other market structures, and the labor market. Group 1 course.

ECO 201  Principles of Macroeconomics .......... 3.0 (3)
Prerequisite(s): MTH 23 is highly recommended.
This principles course surveys basic macroeconomic concepts and theories, and applies them to current economic problems, policies and issues. Topics include nature and scope of economics, income and wealth, public revenue and expenditures, unemployment and inflation, national income accounting and determination, money and banking, monetary policy, and fiscal policy. It is recommended that students take ECO 201 before ECO 202. Group 1 course.

ECO 202  Principles of Microeconomics .......... 3.0 (3)
Prerequisite(s): MTH 23 is highly recommended.
This principles course surveys basic microeconomic concepts and theories, and applies them to current economic problems, policies, and issues. Topics include supply and demand analysis, productivity and the firm’s costs of production, price and output determination under different market structures, government intervention in the market, factor pricing, and international trade. It is recommended that students take ECO 201 before ECO 202. Group 1 course.

EDU 101  Introduction to Teaching .................. 3.0 (3)
This course will serve as an introduction to teaching as a career. It will provide an overview of students’ behaviors and effective teachers’ responsibilities preparatory to guided observation and participation in preparation for further study in the field of education. This course includes 30 hours of classroom observation in a K-12 classroom. Instructor permission is needed for non-high school graduates. Group 2 course.

EET 221  Industrial Controls ........................ 3.0 (4)
Prerequisite(s): EET 104
This course examines the fundamentals of electricity, including direct current, resistive circuits, electrical terminology, units and component symbols, electrical safety, circuit conductors, wire sizes, circuit protection devices. Electrical safety will be stressed as well as the use of multi-meters and other test equipment. Group 2 course.

EET 223  Programmable Logic Controllers ........ 3.0 (4)
Prerequisite(s): EET 221
This course studies programmable logic controllers (PLCs). Basic models and complete applications are applied to control inputs and outputs of PLCs. Ladder logic and device wiring techniques are studied, along with advanced program instructions such as counters, timers, sequencers and integer moves. Input/output devices are used to examine PLC program logic during the control process. Group 2 course.
EGR 101 Introduction to Engineering .......................... 1.0 (1)
This is a general view of the field of engineering. Emphasis is on curricula, categories of engineering and the role of the engineer. Required for all first-year students in the engineering program. Group 2 course.

EGR 131 Elementary Surveying .......................... 5.0 (2)
EGR 131L Elementary Surveying Lab ....................... 0.0 (3)
Prerequisite(s): MTH 122 or MTH 140 or COMPASS equivalent.
Corequisite(s): EGR 131 and EGR 131L
This course is designed to satisfy the elementary surveying requirement for a student entering engineering. Students will learn the theory involved in plane and geometric surveying including both linear and angular measurement, traverse computations, stadia, topographical mapping and the design of horizontal and vertical curves as related to construction surveys. Students are expected to perform lab experiments in which they demonstrate their knowledge of concepts learned in lecture, incorporating the basic skill learned in lecture to field settings. Care, adjustment, and use of basic surveying instruments; leveling, tapping, horizontal angle measurements, traverse surveys, transit stadia, method, topographic mapping with transit; fundamental surveying procedures and office computation are included. Computer spreadsheets and mapping programs are used to facilitate the learning process. Group 2 course.

EGR 201 Statics ............................................ 3.0 (3)
Prerequisite(s): ENG 111, MTH 141
This is the first in a three course sequence in Engineering Mechanics. This course covers those topics included in the study of statics, such as forces acting upon a particle and rigid body at rest, analysis of structures, frictional forces, centroids and moments of inertia. Vector algebra and differential calculus are used throughout the course. Group 2 course.

EGR 202 Mechanics of Materials ................................ 3.0 (3)
Prerequisite(s): EGR 201
This is the second in a three course sequence in Engineering Mechanics. This course covers those topics included in the study of mechanics of materials. This includes stress and strain of engineering materials, torsion, Hooke's Law, and shear and moment diagrams, combined stresses, beam deflection, columns, pressure vessels and structural connections. Vector algebra and differential calculus are used throughout the course. Group 2 course.

EGR 203 Dynamics ............................................. 4.0 (4)
Prerequisite(s): EGR 202
This is the third in a three course sequence in Engineering Mechanics. This course includes those topics typically covered in dynamics such as kinematics, kinetics, work-energy principles, impulse-momentum, Newton's Laws of Motion, and harmonic motion. Vector algebra and differential calculus used throughout this course. Group 2 course.

Visit www.nmc.edu/science-math for more detailed information.

ELE 101 Introduction to Electrical ................................ 3.0 (4)
Recommended Competencies: COMPASS placement into MTH 111 or higher, or co-enrollment in the appropriate developmental math course. COMPASS placement in ENG 11/111 or higher, or co-enrollment in the appropriate developmental English course. This course provides an introduction to electrical. Through structured classroom and hands-on skill building, the student will learn the orientation to the trade, electrical safety, circuits, theory and an introduction into the National Electrical Code. Group 2 course.

ELE 105 Residential Electrical ................................ 3.0 (4)
Prerequisite(s): ELE 101
Through structured classroom and hands-on skill building, the student will learn to identify and select various types and sizes of raceways and fittings for a given application, perform proper hand bending techniques, install conductors, describe the type of information included in electrical specifications and properly use electrical test equipment. Group 2 course.

ELE 121 Electrical Applications ................................ 3.0 (4)
Prerequisite(s): ELE 105
Through structured classroom and hands-on skill building, the student will learn the orientation to alternating current, motors, electric lighting, and conduit bending. Group 2 course.

ELE 125 Electrical Components ................................ 3.0 (4)
Prerequisite(s): ELE 121
Through structured classroom and hands-on skill building, the student will learn the orientation to conductor installations, cable trays, terminations and splices, grounding and bonding, circuit breakers and fuses, control systems and fundamental concepts. Group 2 course.

For course availability, refer to www.nmc.edu/schedule or the Schedule of Classes.
ELE 131   Electrical Distribution ..................... 3.0 (4)
Prerequisite(s): ELE 125
Through structured classroom and hands-on skill building, the student will learn how to calculate loads on branch and feeder circuits, sizing of conductors for proper load, selection and sizing of overcurrent protection, installation of raceways, boxes and fittings, and determine the maximum load allowed on specific wiring devices. Group 2 course.

ELE 135   Motor Control Circuits ..................... 3.0 (4)
Prerequisite(s): ELE 131
Through structured classroom and hands-on skill building, the student will learn how to calculate the power factor of any given circuit, use troubleshooting checklists to troubleshoot fluorescent and HID lamps and lighting fixtures, size motor short circuit protectors, test motors and generators, design and build motor control circuits. Group 2 course.

ELE 141   Commercial Electrical Systems ............ 3.0 (4)
Prerequisite(s): ELE 135
Through structured classroom and hands-on skill building, the student will learn to calculate loads and ampacities for single-phase and three-phase feeders, classify lighting fixtures by layout, location, fixture type, and type of service, interpret electronic system components and schematic diagrams and identify power transformer connections. Group 2 course.

ELE 145   Commercial Electrical Controls ............ 3.0 (4)
Prerequisite(s): ELE 141
Through structured classroom and hands-on skill building, the student will learn to recognize the different types of reduced voltage starting motor controllers, recognize common types of motor braking, test motor winding resistances, troubleshoot and repair electric motors, complete cable tray assemblies using terminations and splices. Group 2 course.

ENG 11   English/Writing Methods 2.0 (non-credit) (2)
Students will be placed in this course as a result of COMPASS testing or after successfully completing ENG 99.
Corequisite(s): ENG 111
This course is to be taken concurrently with ENG 111, and helps facilitate the objectives of ENG 111. Special attention is given to individual student needs in the conventions of standard written prose.

ENG 12   English/Writing Methods 2.0 (non-credit) (2)
Prerequisite(s): ENG 11/111 or ENG 111
Corequisite(s): ENG 112
This course is to be taken concurrently with ENG 112 and helps facilitate the objectives of ENG 112. Special attention is given to individual student needs in the conventions of standard written prose, argumentation and research.

ENG 97   Fundamentals of Writing 3.0 (non-credit) (3)
Students will be placed in this course as a result of COMPASS testing.
This is a developmental writing course that focuses on the process of writing, but specifically emphasizes elements of sentence structure, with focus on grammar and punctuation, proceeding to topic sentence analysis, paragraph and essay development. Classroom and laboratory instruction will focus on specific individual skill needs. In addition, students will be guided to effective ways to approach reading so they can prepare written responses and discussions. Students are required to schedule ten one-hour tutoring sessions through the Writing Center.

ENG 99   Intro. Col. Reading/Writing 6.0 (non-credit) (6)
Students will be placed in this course as a result of COMPASS testing.
This is an integrated reading and writing course that gives students the literacy skills they need for college level academic work. Course focus in writing is on the development of organization and clarity, mechanical correctness, and sentence structure and variety. Course focus in reading is on the development of vocabulary and comprehension, and reading strategies. Students are required to schedule eight one hour tutoring sessions through the Writing Center.

ENG 107   Academic Study Methods .................... 2.0 (2)
Students will be placed in this course as a result of COMPASS testing.
This course is designed to provide students with the opportunity to develop and improve basic college academic survival skills and study methods. Topics include: introduction to student's own personal learning style, learning theory, active listening, time management, test taking strategies, basic study techniques such as SQ3R, note taking, improving concentration and memory, and controlling the study environment. Group 2 course.
ENG 108 Reading & Learning Strategies .............. 3.0 (3)
Students may elect this course as a helpful “entry to college” course; this course may also be required as a result of COMPASS testing. Through readings from other disciplines, the focus of this course is on improving comprehension and vocabulary. Learning strategies are introduced and then applied to coursework. Study skills taught include note-taking, test preparation, monitoring comprehension, and general techniques for effective learning. Group 2 course.

ENG 110 Grammar & Writing ............................... 3.0 (3)
Prerequisite(s): ENG 99
This course is not a refresher but an intensive inspection of the sentence - as it gets used in academic writing. In the eight weeks, students will be invited to think strategically and deliberately about conventions they’ve either missed or acquired unconsciously. While developing/intensifying syntactical skill, they will also develop a sound and reasonable language about language. Group 2 course.

ENG 111 English Composition ............................ 4.0 (4)
Prerequisite(s): Students will be placed in this course as a result of COMPASS testing.
This is a writing course in which students work to develop their sense of language as a means of shaping and ordering their experience and ideas to develop thought, organization and clarity in written work. Group 1 course.

ENG 112 English Composition ............................ 4.0 (4)
Prerequisite(s): ENG 111 or ENG 11/111
This is a writing course based on critical reading from various fields. Writing assignments reinforce skills in summary, analysis, evaluation, and synthesis. Emphasis is on argumentation, research methods, and information literacy. Group 1 course.

ENG 210 Children’s Literature ............................. 3.0 (3)
Prerequisite(s): ENG 112
Focus is on developing criteria, terminology and resources for evaluation and selection of good quality children’s literature and on developing methods for sharing that literature with children. The course surveys both picture books and novels from a variety of genres and cultures, and also examines the impact of social change on children’s literature. Humanities or English credit. Group 1 course.

ENG 211 Introduction to Linguistics ...................... 3.0 (3)
Prerequisite(s): ENG 112
This course is designed to acquaint students with modern developments in the science and philosophy of language, and to improve their understanding of culture and language in general. It addresses issues of sound, word formation, syntax, semantics, language acquisition and more. Group 2 course.

ENG 220 Technical Writing ................................. 3.0 (3)
Prerequisite(s): ENG 112 or instructor permission.
This course introduces students to a variety of technical writing situations in business, industry, science, and education. It emphasizes audience awareness, research methods, problem solving, critical thinking, professional ethics, patterns of typical proposals, descriptions, and the requirements of formal reports used in professional writing. Group 2 course.

ENG 221 Creative Writing ................................. 3.0 (3)
Prerequisite(s): ENG 112 or instructor permission.
Study and practice of the basic techniques of imaginative writing, focusing on short fiction but with considerable allowance for individual interests. The class emphasizes craft while giving room for creative talent to emerge in response to open-ended assignments. In this workshop seminar, students will exchange helpful commentary on each other’s writing, as well as examine professional fiction to analyze how successful authors achieve their results. The class includes close work with the elements of creative narration: concrete language, story shape and pace, characterization, point of view and setting. Individual conferences will supplement class activities. Group 2 course.

ENG 222 Advanced Creative Writing .................... 3.0 (3)
Prerequisite(s): ENG 221 or instructor permission.
More intense and advanced study and practice of techniques of imaginative prose writing than in ENG 221, which an emphasis on narrative fiction, but offering a wide range of options for individual creativity and interest. As an advanced creative writing course, 222 places emphasis upon more fully developed narrative manuscripts, moving beyond individual scenes and exercises with individual narrative techniques to complete stories and revisions of them. Workshop activities will require more sophisticated, directed exchanges among students. Final portfolios are expected to include at least one ‘publishable’ manuscript, showing revision stages and self-appraisal of that manuscript in particular and semester’s work in general. At least one full class session is devoted to publication strategies. Group 2 course.

ENG 223 Apprentice Poetry Workshop ................... 3.0 (3)
Prerequisite(s): ENG 112 or instructor permission.
Weekly writing exercises, peer critique, and one on one mentoring with the instructor provide the foundation for this workshop whose goal is agile, well read poets who feel comfortable working in a variety of forms, as well as reading their own work out loud. Discussion of required readings, emphasis on revision, and experiments to aid the creative process can be expected during the session. Group 2 course.

ENG 224 Journalism Fundamentals ....................... 3.0 (3)
Prerequisite(s): Completion of ENG 111 strongly recommended or instructor permission.
While the history and role of the press are discussed, this course primarily provides the student with theory and practice in news, editorial and feature writing. Press law and ethics will also be examined. Group 2 course.
ENG 228  Advanced Writing & Rhetoric              4.0 (4)
Prerequisite(s): ENG 111 and ENG 112
This course examines persuasive language of everyday life and calls on students to reveal, analyze, and critique the subtle rhetorical elements in the texts and voices around them. The course examines how everyday texts or “artifacts” (such as news programs, advertisements, church bulletins, political slogans, college textbooks, course syllabi, and other official documents) persuade audiences to believe in a particular reality. Formal written analysis will rely on working knowledge of classical rhetoric (terms and concepts discussed early in the semester).
Group 2 course.

ENG 240  Introduction to Literature               3.0 (3)
Completion of ENG 111 and 112 strongly recommended or instructor permission. Strongly recommended as the FIRST college literature course for those with little or no prior literary study experience.
An introduction to a variety of literary styles, themes, and forms such as fiction, drama and poetry. Intended to develop an understanding and enjoyment of reading as well as an understanding of current critical approaches to the study of literature. Humanities or English credit. Group 1 course.

ENG 241  Mythology                               3.0 (3)
Completion of ENG 111 and 112 strongly recommended or instructor permission.
This course features a study of central and recurring patterns of human concern as revealed in the mythic content of various forms of literature. Examination of archetypal structures embedded in works of cultures ranging from ancient Babylonian to contemporary eras is central to course goals and outcomes. Areas to be investigated will include myths of the quest, of power, of origins, of love, and of art. Humanities or English credit. Group 1 course.

ENG 242  Women in Literature                    3.0 (3)
Completion of ENG 111 and 112 strongly recommended or instructor permission.
This course features an examination of essays, novels, stories, and poems written primarily (but not exclusively) by 19th and 20th century European and American female authors. In addition, the course introduces students to relevant literary criticism and the historical, cultural context in which writing by and about women has emerged. Humanities or English credit. Group 1 course.

ENG 245  Native American Literature              3.0 (3)
Completion of ENG 111 and ENG 112 strongly recommended, or instructor permission.
This is a general introductory survey course that will explore various Native American literary genres, including fiction, non-fiction, biography and critical essays. Students will be encouraged to develop a critical stance toward non-Native depiction of Native literature and to look beneath the “surface” for hidden socio-economic messages. Students will evaluate past and present expectations of Native American literature and develop an understanding of new more aggressive and increasingly pervasive forms of Native fiction and non-fiction. Humanities or English credit. Group 1 course.

ENG 246  Shakespeare                             3.0 (3)
Completion of ENG 111 and 112 strongly recommended.
This course is an introduction to representative major dramatic works of Shakespeare and the Elizabethan Age, and includes lecture, film, and discussion. Humanities or English credit. Group 1 course.

ENG 250  Environmental Literature                3.0 (3)
Completion of ENG 111 and 112 strongly recommended or instructor permission.
This course will examine the changing perceptions and definitions of wilderness and nature in Western literature and culture. The course will examine and discuss poetry, fiction, and nonfiction by authors, including Wordsworth, Thoreau, Muir, Leopold, Stegner, Jeffers, Silko, Oliver, Abbey, Snyder, and Williams. Students will explore the interaction between literature and environmental issues and activism, and also consider the impact of nature and wilderness on music, painting, photography, and film. Humanities or English credit. Group 1 course.

ENG 254  British Literature                      3.0 (3)
Completion of ENG 111 and 112 strongly recommended or instructor permission.
This course features an intensive reading of works from British authors representing the entire span of this literary tradition and including works in various genres. It develops a sense of the evolution of British literature and a facility in careful literary criticism. Humanities or English credit. Group 1 course.

ENG 256  American Literature                     3.0 (3)
Completion of ENG 111 and 112 strongly recommended or instructor permission.
Students in this course study the American tradition, early and modern, in prose and poetry. Selections will emphasize the cultural and intellectual background giving rise to our national literature, the major phases or movements in that literature, and how certain writers transcended those movements to create works of universal value. Humanities or English credit. Group 1 course.

ENG 262  World Literature                        3.0 (3)
Completion of ENG 111 and 112 strongly recommended or instructor permission.
This course exposes students to a variety of readings drawn from Africa, Asia, Europe, Latin America, and/or Oceania. While the reading and writing assignments will certainly require close literary analysis, the class will also attempt to situate the works culturally, historically, and theoretically. Humanities or English credit. Group 1 course.
ENG 264  Detective Fiction.................................3.0 (3)
Completion of ENG 111 and 112 strongly recommended.
The primary emphasis of this course is reading and writing about
detective fiction and the historical and cultural development
of this genre of literature. Multi-media story formulas
analyzed include avenger stories, private eye fiction, police
procedurals, gentleman thieves, psychic detectives, stories of
magician detectives and spy fiction. Humanities or English
credit. Group 1 course.

ENG 265  Science Fiction & Fantasy.........................3.0 (3)
Completion of ENG 111 and 112 strongly recommended.
The primary emphasis of this course is reading and writing about
Science Fiction and Fantasy stories as they are found in
a range of cultural texts like print, motion pictures, radio dra-
tma, television, and more. Students will learn to identify and
discuss mythologies and related symbols, genre and formula
conventions such as icons, stereotypes, rituals, plots, motifs,
settings, and more as they investigate the social history of these
stories. Humanities or English credit. Group 1 course.

ENG 266  Popular Culture.......................................3.0 (3)
Completion of ENG 111 and 112 strongly recommended or
instructor permission.
The primary emphasis of this course is centered on the critical
reading of and writing about popular culture and its historical
development in U.S. and world cultures. Topics to be ad-
dressed include myth and mythmaking, iconography, stereo-
types, genres and formulas, the mass media and more. Humanities or English credit. Group 1 course.

ENG 267  Film as Literature...................................3.0 (3)
Completion of ENG 111 and 112 strongly recommended or
instructor permission.
This course offers students the opportunity to examine and
critique a selection of films through discussion and writing by
employing techniques similar to those used in literary analysis.
Humanities or English credit. Group 1 course.

ENG 271  Adolescence & Cultural Diversity...........3.0 (3)
Completion of ENG 111 and 112 strongly recommended or
instructor permission.
This course provides a study of universal and diverse themes
and ideas expressed through adolescent literature. It features
protagonists and authors from a variety of cultures, both
within and outside of the United States, and emphasizes the
relationship between culture and the lives of young people.
Humanities or English credit. Group 1 course.

For more information on elective literature or writing
courses and when they are offered, please contact the
Communications Academic Office, (231) 995-1175.

ENV  Environmental Science

ENV 103  Earth Science.........................................4.0 (3)
Prerequisite(s): MTH 08 and ENG 99 or COMPASS equivalent.
Students scoring below ENG 111 levels on the COMPASS place-
ment test should plan on additional study time.
Corequisite(s): ENV 103 and ENV 103L
Designed for the student who does not intend to major in
a physical science. Subject matter deals with features of the
planet earth, astronomy, and weather. The laboratory portion
includes a practical study of rocks and minerals as well as a
study of topographic, geologic and weather maps. Field trips
investigate landforms in the Grand Traverse area.
Group 1 lab course.

ENV 104  Life of the Past.......................................4.0 (3)
Prerequisite(s): MTH 08 and ENG 99 or COMPASS equivalent.
Students scoring below ENG 111 levels on the COMPASS place-
ment test should plan on additional study time.
Corequisite(s): ENV 104 and ENV 104L
This course introduces non-science students to the record of
life on Earth. The roles of global change, origins, evolution,
and extinction in life history are examined. Great Lakes and
North American fossil records with Pre-Paleozoic micro-orga-
isms and Paleozoic invertebrates and vertebrates are highlight-
ed. Appearance, evolution, and disappearance of dinosaurs
during the Mesozoic Era, human evolution, and the recent de-
mise of the giant Ice Age mammals are analyzed in depth. Lab-
oratory and class activities are included. Group 1 lab course.

ENV 111  Physical Geology.................................4.0 (3)
Prerequisite(s): MTH 111 or COMPASS equivalent.
Corequisite(s): ENV 111 and ENV 111L
This course explores processes which transform planet Earth.
Landforms, minerals, rocks, and geologic structures are exam-
ined in classroom, laboratory, and field studies which focus on
these geologic processes and on the techniques of geology.
Lab studies apply the methodology and techniques of geology
by introduction of map reading, field and map study, study of
surficial processes, and study of minerals and rocks.
Group 1 lab course.

ENV 112  Historical Geology...............................4.0 (3)
Prerequisite(s): ENV 111 and MTH 111 or
COMPASS equivalent.
Corequisite(s): ENV 112 and ENV 112L
Rocks and fossils of North America, the Great Lakes and the
Grand Traverse region which reveal the physical, chemical,
and biological evolution of the planet earth are explored in
classroom, laboratory, and field studies (including a required
four-day field excursion to Elliot Lake, Ontario).
Group 1 lab course.
ENV 115  Intro to Computer Mapping .................. 2.0 (2)
Prerequisite(s): MTH 23 or COMPASS equivalent.
Minimum of 6 cr. hrs from either ENV, GEO, BIO, EGR or
instructor permission.
This course explores the fundamentals of map reading, inter-
pretation, and analysis, in conjunction with principles of cart-
ography. Computer technology is utilized for the generation,
manipulation, storage, and retrieval of maps and associated
geographic attributes. Group 2 course.

ENV 117  Meteorology & Climatology.................. 4.0 (3)
ENV 117L Meteorology & Climatology Lab ........... 0.0 (2)
Prerequisite(s): MTH 23 or COMPASS equivalent. Students
scoring below ENG 111 levels on the COMPASS placement test
should plan on additional study time.
Corequisite(s): ENV 117 and ENV 117L
Designed to acquaint the student with the science and art
of weather analysis, this course includes studies of the basic
properties of gases, organization and composition of the atmo-
sphere, basic energy flow, and general weather phenomena that
result. Global climates are also investigated. The laboratory
portion presents the function and effect of selected physical
processes, and includes the use of weather instruments and
weather maps. Group 1 lab course.

ENV 131  Oceanography .................................... 4.0 (3)
ENV 131L Oceanography Lab ............................ 0.0 (2)
Prerequisite(s): MTH 23 or COMPASS equivalent. Students
scoring below ENG 111 levels on the COMPASS placement test
should plan on additional study time.
Corequisite(s): ENV 131 and ENV 131L
This course explores the origins, structure, and evolution of
ocean basins and their role in global climate dynamics. It shall
include an investigation of the physical properties that govern
waves, currents, tides, air-sea interactions as well as the physi-
cal and chemical properties of seawater. Also it explores plant
and animal life within the oceans including impacts of human
activities on the marine environment. Group 1 lab course.

ENV 140  Watershed Science .............................. 4.0 (3)
ENV 140L Watershed Science Lab ........................ 0.0 (2)
Prerequisite(s): MTH 23 or COMPASS equivalent. Students
scoring below ENG 111 levels on the COMPASS placement test
should plan on additional study time.
Corequisite(s): ENV 140 and ENV 140L
This course is designed for the learner who wishes to gain
an in-depth understanding of watersheds. It will focus on the
physical and biological systems that are responsible for the
quality and characteristics of a watershed. Human interac-
tions, stewardship, management and impacts on our local
water resources will also be explored. The laboratory portion
of the course will place emphasis on field investigations and
the analysis of data and water samples collected. Throughout
the course basic scientific principles will be incorporated.
Group 1 lab course.

ENV 200  Fundamentals of Soil Science ............... 4.0 (3)
ENV 201L  Fundamentals of Soil Science Lab ........ 0.0 (2)
Prerequisite(s): ENG 111, MTH 23 or COMPASS equivalent.
Corequisite(s): ENV 200 and ENV 201L
This course will explain the fundamental principles of soil sci-
cence emphasizing soil as a natural resource. The many inter-
actions between the soil and other components of forest, range,
agricultural, wetland and constructed ecosystems are high-
lighted. In addition to the physical properties; soil chemistry,
water interactions, and biological process will be investigated.
Soil taxonomy, management, and human interaction with
soil will also be covered. The laboratory portion of the course
focuses on mapping and identification of soils in the field and
lab analysis of soil properties. Group 1 lab course.

ENV 231  Environmental Science ....................... 4.0 (3)
ENV 231L Environmental Science Lab ............... 0.0 (2)
Prerequisite(s): ENG 111, MTH 111 or COMPASS equivalent.
Corequisite(s): ENV 231 and ENV 231L
Environmental Science is an interdisciplinary course investi-
gating scientific aspects of the outstanding environmental con-
cerns: air, water, and earth alteration; industrial, agricul-
tural and residential/commercial pollution; and ecological changes.
Included are the basics of the chemical cycles and societal fac-
tors which complicate problem solving. Laboratory incorpo-
rates problem solving from data accumulated from field trips,
lab activities, and research. Group 1 lab course.

ENV 270A  Michigan Basin Geology .................. 2.0 (3)
Prerequisite(s): ENG 111, completion of any Science course with
laboratory and instructor permission.
This is a five-day study of the Michigan Basin. The class con-
centrates on Paleozoic rock layers and their included fossils.
There is also a section on relationships of rock layers to more
recent geologic processes and their associated deposits and
landforms. Group 1 course.

ENV 270B  Field Mapping Techniques ................ 2.0 (3)
Prerequisite(s): ENG 111, MTH 23 or COMPASS equivalent.
Completion of any Science course with laboratory, and
instructor permission.
This course is a one-week field course. It will focus on the fun-
damentals of map interpretation and generation. Students will
gain a basic understanding of the principles of cartography
and field mapping techniques employed by various disciplines
in the acquisition of spatial data. Group 1 course.

ENV 270C  Precambrian Geology of Michigan ....... 2.0 (3)
Prerequisite(s): ENG 111, MTH 23 or COMPASS equivalent.
Completion of any Science course with laboratory, and
instructor permission.
This course is a six-day field study of the Precambrian geology
of the western Upper Peninsula of Michigan. The class will
focus on rock and mineral identification, economic geology,
and the geologic history of Michigan’s UP. The relationships
of ancient bedrock layers to recent surficial geologic processes
and their associated landforms will also be explored.
Group 1 course.
ENV 290A-E Environmental Internships ..... 1.0-4.0 (1-4)
Prerequisite(s): MTH 23 or COMPASS equivalent, ENG 111, and a minimum of 8 hours of ENV, BIO, or GEO courses with GPA of 2.5 or higher and instructor permission.
Students are placed in a work-related setting with an environmental or conservation focus. The experience will allow them to apply and expand upon previous courses taken at Northwestern Michigan College. An end result of the field experience is the synthesis of knowledge acquired to gain a broader understanding of environmental and conservation-related issues. Group 2 course.

Visit www.nmc.edu/science-math for more detailed information.

GEO 101 Introduction to Geography ................. 3.0 (3)
This course emphasizes both the physical and the cultural aspects of geography. Physical factors such as weather and climate, soil, vegetation and landforms are considered as they determine the natural resources of a region. Various aspects of human culture such as religion, language and economic systems are studied to gain an understanding of the ways in which people have used and misused their resources. Group 1 course.

GEO 105 Physical Geography ..................... 3.0 (3)
Corequisite(s): GEO 105L
Physical geography studies, selected elements of the physical environment: weather and climate, landforms, soil and vegetation. Particular emphasis is placed upon the nature and distribution of physical features throughout Michigan with respect to humankind. The lab includes field trips and emphasizes the application of physical principles through hands-on study of minerals, rocks, and soils; in conjunction with map and aerial photo interpretation. Group 1 course.

GEO 105L Physical Geography Lab ............. 1.0 (2)
Corequisite(s): GEO 105
The lab emphasizes the application of selected physical elements through means of field work, map and aerial photo interpretation. Group 1 lab course.

GEO 108 Geography of U.S. & Canada ........... 3.0 (3)
The diverse regions of Anglo-America will be investigated in this course. We will consider the relationship between the natural environment, the cultural background, economic conditions, and local problems of the U.S. and Canada. Group 1 course.

GEO 109 World Regional Geography .......... 3.0 (3)
This course is a study of world regions. For each region we will consider the relationship between the natural environment, cultural background, economic conditions, and local problems that relate to world issues. Group 1 course.

GEO 110 Economic Geography .................. 3.0 (3)
An examination of the location of various economic activities in the United States and elsewhere and a discussion of the different ways of accounting for that location. Various elements of the natural, economic, social and political environments are considered and their relative importance analyzed, with reference to primary, secondary, and tertiary production. Group 1 course.

GEO 115 Intro to Computer Mapping .......... 2.0 (2)
Prerequisite(s): Minimum of 6 credit hours from either ENV, GEO, BIO, EGR or instructor permission.
This course explores the fundamentals of map reading, interpretation, and analysis, in conjunction with principles of cartography. Computer technology is utilized for the generation, manipulation, storage, and retrieval of maps and associated geographic attributes. Group 2 course.

HAH Allied Health

The following courses are appropriate for students in pre-professional medical studies in many health careers, and for those health professionals who wish professional continuing education course work. The content of these courses provides a broad background and can be a useful tool in the medical field. Students who wish credits from these courses transferred to other college or university health programs should consult with a NMC counselor to facilitate the process. Admission to a NMC Health Occupations program is not required to enroll in most of these elective courses.

HAH 100C Informatics Essentials ............. 1.0 (1)
Prerequisite(s): CIT 122A
Corequisite(s): HNR 102
This course will introduce students to informatics in health care and, in particular, nursing. Students will enhance their ability to use modern informatics such as computer and Internet resources as well as Electronic Medical Record (EMR) software, in the health care environment. This course is offered in a hybrid online and face-to-face format. Group 2 course.

HAH 101 Medical Terminology ................. 3.0 (3)
This course is designed to help the student learn the basic construction of medical words through the use of medical prefixes, suffixes, and combining root words. This foundation will facilitate the understanding of new medical vocabulary encountered in other course work or work situations. Group 2 course.

HAH 120 Infection Control ..................... 2.0 (2)
This course details the structure of infectious organisms and mechanisms of disease transmission, including host defenses against disease and specific diseases of concern to dental and medical personnel. In addition, the course provides an overview of MIOSHA (Michigan Occupational Safety and Health Act) regulations and occupational safety measures as they relate to the dental and medical fields. Group 2 course.
HAH 121 Medical Coding ............................... 2.0 (2)
Prerequisite(s): HAH 101, BIO 106 (or a course in human body and function), CIS 109b or equivalent professional experience and instructor permission.
This course is a practical hands-on approach to develop medical coding resources utilization techniques. The course is designed to assist the student in mastery of medical coding concepts and skills. Emphasis is placed on proficient use of medical coding tools to organize and translate written medical documentation into numeric codes and process the information for reimbursement and statistical purposes. **Group 2 course.**

HAH 122 Medical Office Billing & Insurance .......... 3.0 (3)
This is a practical hands-on approach to develop medical billing resource techniques. This course is designed to assist the student in mastery of medical insurance concepts and skills. Emphasis is placed on the proficient use of medical coding tools to organize and translate written documentation into numeric codes and process the information for reimbursement and statistical purposes. **Group 2 course.**

HDA 200 Emergency Assessment & Intervention 3.0 (4)
A comprehensive study of the concepts and practices of first aid techniques. The course provides training for emergency care through assessment, critical thinking, implementation, documentation, and evaluation. It also addresses situations when injury or sudden illness becomes a threat to life, or problems develop that endanger physical or psychological well-being. Certification for C.P.R. and HAZMAT may be earned in cooperation with state and/or national agencies. Must be able to meet patient lifting and equipment requirements. Required for MCOLES Police Academy. Signature required to register. **Group 2 course.**

**HDA Dental Assistant**

HDA 101 Introduction to Dentistry ..................... 2.0 (2)
Students are introduced to the role of the dental assistant and the dental team and opportunities for employment. Students will be informed of the requirements for certification and registration and the various organizations and associations within dentistry and dental assisting. Other areas studied will include dental specialties, dental terminology, applied psychology in the dental office, instrument and equipment identification and charting. The student will have an opportunity to view a dental office to see the set-up and to observe the roles of each person on the dental team. **Group 2 course.**

HDA 112 Dental Materials ............................... 2.0 (2)
Prerequisite(s): HDA 120, HAH 120
Corequisite(s): HDA 113
Students learn the preparation, manipulation, and use of dental materials commonly found in the dental office. There will be discussion regarding the equipment needed, mixing techniques, and proper usage of waxes, restorative materials, impression materials, gypsum products, cements, metals and therapeutic materials. Preparation of each material will be demonstrated. **Group 2 course.**

HDA 113 Dental Materials Lab ............................ 1.0 (2)
Prerequisite(s): HDA 120, HAH 120
Corequisite(s): HDA 112
This course familiarizes the student with the handling of dental materials commonly used in the dental office. Opportunities are provided in the laboratory to develop skills in mixing techniques, impression taking, construction of study models, bleaching, and acrylic trays. **Group 2 course.**

HDA 120 Dental Anatomy ................................... 3.0 (3)
The student will learn the anatomy and physiology of the oral cavity, teeth and head. Students will learn the histology of the teeth and surrounding structures, the bones of the skull, the nerves and blood supply of the head and neck, the muscles of mastication, and the names and functions of the teeth and oral structures. This class will also provide detailed information on the anatomy of the individual teeth. **Group 2 course.**

HDA 140 Oral Pathology/Pharmacology ................. 2.0 (2)
Prerequisite(s): HDA 120
The purpose of this course is to familiarize the student with disease processes related to the oral cavity and to enable the student to identify these diseases. The student will become familiar with various drugs and their uses in dentistry, prescription writing and documentation, the sources of drugs, routes of administration, and the conditions that modify the reactions of drugs. **Group 2 course.**

HDA 150 Dental Office Management ....................... 2.0 (2)
Students are acquainted with the procedures necessary for efficient dental office management. Topics include appointment book control, accounts receivable and payable, dental record keeping, third party payment, patient recall, inventory control, telephone techniques, and use of computer hardware and software unique to the dental office. This course is offered in the self-paced format. **Group 2 course.**

HDA 160 Dental Emergencies .............................. 1.0 (1)
This course acquaints the student with the types of emergencies that may arise in the dental office. The students will learn the procedures to follow when medical and dental emergencies occur, the importance and significance of obtaining accurate and complete patient histories, the proper emergency equipment necessary in a dental office and the maintenance of that equipment, the taking and recording of vital signs, basic first aid rules, and fire safety. **Group 2 course.**

HDA 170 Preventive Dentistry ............................. 2.0 (2)
This course deals with educating dental patients in proper oral hygiene and nutrition. The topics of discussion will include vitamins, minerals, fats, carbohydrates, proteins, food groups, fluoride treatments, oral examinations, pit and fissure sealants, public health dentistry, and oral hygiene instructions. Student demonstration and participation is emphasized. Fluoride treatments and a dietary analysis will be learned and demonstrated by students. Two community presentations will be designed and presented by each student. **Group 2 course.**
HDA 240  Chairside Procedures .......................... 5.0 (5)
Prerequisite(s): HDA 101, HDA 120, HAH 120
Corequisite(s): HDA 241
This course provides the foundation for dental assistant clinic
ical procedures performed in both general and specialty dental
offices. Topics include theory and application of four-handed
dentistry; application of infection control procedures; an over-
view of procedures and techniques unique to dental specialties;
and background information and technical skills performed
by the Registered Dental Assistant. In addition, local dental
specialists serve as guest speakers. Group 2 course.

HDA 241  Chairside Procedures Lab.................. 2.0 (4)
Prerequisite(s): HDA 101, HDA 120, HAH 120
Corequisite(s): HDA 240
This is the clinical component of Chairside Procedures.
Students learn and practice operative and specialty chairside
techniques in a fully equipped dental clinic. Students assist
visiting dentists during simulated dental procedures. Expanded
duties for dental assistants are also introduced in this course.
Group 2 course.

HDA 242  Dental Radiography .......................... 2.0 (2)
Corequisite(s): HAH 120, HDA 120, HDA 243
The fundamentals of radiology as applied to dentistry will
be presented. Special consideration will be given to radiation
physics, hazards, biological effects, protection and quality con-
trol methods. Basic interpretation and radiographic anatomy
will also be included. While extraoral techniques are discussed,
emphasis will be given to the proper techniques for exposing,
processing, and mounting traditional and digital intraoral
radiographs of diagnostic quality. Group 2 course.

HDA 243  Dental Radiography Lab.................... 1.5 (3)
Corequisite(s): HAH 120, HDA 120, HDA 242
Clinical component of Dental Radiography. Students will
be introduced to a variety of radiography techniques and
will learn how to expose, process and mount radiographs of
diagnostic quality. Requirements include three sets on dental
manikins and four sets on dental patients. Group 2 course.

HDA 251  Dental Assistant Internship I............. 4.0 (4)
Prerequisite(s): HDA 240, HDA 241
Students are assigned to dental offices in the community.
180 hours of hands-on experience includes chairside assist-
ing; office management; laboratory techniques and expanded
functions. May take any semester with instructor permission.
Included is a one-hour, bi-weekly seminar session.
Group 2 course.

HDA 252  Dental Assistant Internship II............. 4.0 (4)
Prerequisite(s): HDA 251
A continuation of Internship I providing an additional 180
hours of hands-on experience. In addition to placement in a
general dental practice, students observe four specialty settings:
oral surgery, orthodontics, periodontics, and endodontics.
May take any semester with instructor permission. Included is
a one hour, bi-weekly seminar session. Group 2 course.

HDA 282  CDA/RDA Written Exam Prep ............. 2.0 (2)
Prerequisite(s): HAH 120, HDA 101, HDA 120, HDA 150,
HDA 160, HDA 242, HDA 243
Co-and/or prequisite(s): HDA 112, HDA 113, HDA 140,
HDA 170, HDA 240, HDA 241
The purpose of this course is to prepare students and work-
ing dental assistants for the CDA and RDA written exams.
Included are review sessions covering General Chairside, In-
fection Control, and Radiography for both exams and additional
specific topics that relate directly to Michigan's expanded
functions for dental assistants. Group 2 course.

HDA 286  RDA Clinical Exam Prep .................. 1.0 (1)
Prerequisite(s): HAH 120, HDA 101, HDA 120, HDA 150,
HDA 160, HDA 242, HDA 243
Co-and/or prequisite(s): HDA 112, HDA 113, HDA 140,
HDA 170, HDA 240, HDA 241
This course will provide dental assisting students with study/
application sessions for the clinical portion of the state licen-
sure exam. Expanded functions of special interest are dental
amalgams, temporary crowns, and dental dams. Must be a
current dental assisting student or a graduate of a post-
secondary dental assisting program approved by the State
Board of Dentistry. Group 2 course.

HF   Health and Fitness

All Health and Fitness courses are Group 2 courses.

HF 101  Fitness Circuit I ............................. 0.5 (1)
Introduction to beginning aerobic conditioning through a
fitness circuit designed for varying fitness levels. Instruction
includes individual fitness evaluation, aerobic fitness, strength
training, flexibility, and endurance. Course meets in the NMC
Health and Fitness Center using strength training equipment,
exercise bicycles, and other aerobic equipment. Two hours per
week. Offered summers only.

HF 102  Fitness Circuit II .............................. 0.5 (1)
Prerequisite(s): HF 101
Continuing beginning aerobic conditioning through a fitness
circuit designed for varying fitness levels. Instruction includes
individual fitness evaluation, aerobic fitness, strength training,
flexibility, and endurance. Course meets in the NMC Health
and Fitness Center using strength training equipment, exercise
bicycles, and other aerobic equipment. Two hours per week.
Offered summers only.

HF 111  Fitness Circuit I .............................. 1.0 (2)
Introduction to aerobic conditioning through a fitness cir-
cuit designed for varying fitness levels. Instruction includes
individual fitness evaluation, strength training, flexibility, and
endurance with an emphasis on aerobic conditioning. Course
meets in the Health and Fitness Center using strength training
equipment, exercise bicycles, and other aerobic equipment.
HF 112  Fitness Circuit II  ............... 1.0 (2)
Prerequisite(s): HF 111
Continuation of aerobic conditioning through a fitness circuit designed for varying fitness levels. Instruction emphasizes individual strength training and flexibility. Course meets in the NMC Health and Fitness Center using strength training equipment, exercise bicycles, and other aerobic equipment.

HF 113  Fitness Circuit III  ............... 1.0 (2)
Prerequisite(s): HF 112
Continuation of aerobic conditioning through a fitness circuit designed for varying fitness levels. Instruction emphasizes individual aerobic fitness options and the reduction of stress. Course meets in the NMC Health and Fitness Center utilizing strength training equipment, exercise bicycles, and other aerobic equipment.

HF 114  Fitness Circuit IV  ............... 1.0 (2)
Prerequisite(s): HF 113
Continuation of aerobic conditioning through a fitness circuit designed for varying fitness levels. Instruction emphasizes individual fitness evaluation/workout, weight control, and nutrition. Course meets in Health and Fitness Center utilizing strength training equipment, exercise bicycles, and other aerobic equipment.

HF 116  Yoga  ......................... 1.0 (2)
Yoga is postural work emphasizing precise, careful body alignment and maximum spinal extension. Yoga works through the concreteness of the body to teach balance and integration. It is an effective way to stretch and strengthen the body. Using movement and breath, yoga brings a therapeutic calm to the body and mind, releasing stress and bringing relaxation.

HF 118  Continuing Yoga  ............... 1.0 (2)
Prerequisite(s): HF 116 or instructor permission.
Yoga techniques focus on understanding and controlling the body, the breath, and the mind through exercises (asanas), breathing techniques (pranayamas), and meditation training (quieting the mind and body). Yoga poses are designed to develop strength and give maximum flexibility to the muscular, skeletal, and nervous systems with special emphasis on building a strong, supple spine. Benefits include improved circulation, hormonal balance, poise, and a more stable emotional nature. Learning proper breathing will help you cope with stress and increase your energy level. Wear loose, comfortable, layered clothing and plan to work barefooted. Bring two blankets, a mat, and bath towel.

HF 118A  Bikram Yoga  ................. 1.0 (2)
The original Hot Yoga, 105 degrees, pure, powerful, authentic, unchanged, taught exactly as Hatha Yoga Master Bikram Choudhury intends it to be taught. Twenty-six poses, two breathing exercises, 90 minutes, plus heat.

HF 119  Aerobic Workout  ............... 0.5 (1)
Easy to follow choreographed conditioning routines are set to motivating contemporary music. Get a good workout, release tension, gain energy, and have fun. Offered summers only.

HF 120  Aerobic Workout I  ............. 1.0 (2)
Easy to follow choreographed conditioning routines are set to motivating contemporary music and taught for all fitness levels. Students will improve their fitness level through cardiovascular endurance, muscle strengthening, flexibility and coordination.

HF 121  Aerobic Dance I  ............... 1.0 (2)
Through choreographed dance movements and contemporary music, cardiovascular endurance, flexibility, strength and coordination is promoted.

HF 122  Step Aerobics I  ............... 1.0 (2)
This body sculpting and fat burning program provides a unique blend of exercise, bench and resistance training by combining Vertifirm (hips & thighs), hand held weights (upper body) and low impact, high-energy step routines.

HF 123  Step Aerobics  .................. 0.5 (1)
This body sculpting and fat burning program provides a unique blend of exercise, bench and resistance training by combining Vertifirm (hips & thighs), hand held weights (upper body) and low impact, high-energy step routines. Offered summers only.

HF 124  Aerobic Dance  ................. 0.5 (1)
Through choreographed dance movements and contemporary music, cardiovascular endurance, flexibility, strength and coordination is promoted. Offered summers only.

HF 126  Lap Swim  ...................... 1.0 (2)
Prerequisite(s): Ability to swim repeated laps across a pool.
Use of basic strokes for fitness is reviewed. Emphasis is on aerobic and muscular endurance through swimming a variety of laps.

HF 127  Lap Swim II ..................... 1.0 (2)
Prerequisite(s): HF 126
A continuation of the Lap Swim program. Emphasis is on increasing aerobic and muscular endurance through swimming a variety of laps.

HF 130  Aerobic Workout II ............ 1.0 (2)
Prerequisite(s): HF 120
A continuation of the Aerobic Workout fitness program. Easy to follow choreographed conditioning routines are set to motivating contemporary music. Students will improve their fitness level through cardiovascular endurance, muscle strengthening, flexibility and coordination.
HF 131  Aerobic Dance II ........................................ 1.0 (2)  
Prerequisite(s): HF 121  
A continuation of the Aerobic Dance fitness program.  
Through choreographed dance movements and contemporary music cardiovascular endurance, flexibility, strength, and coordination is promoted.

HF 132  Step Aerobics II ........................................ 1.0 (2)  
Prerequisite(s): HF 122  
A continuation of the Step Aerobics fitness program. This body sculpting and fat burning program provides a unique blend of exercise, bench and resistance training by combining Vertifirm (hips & thighs), hand held weights (upper body) and low impact, high-energy step routines.

HF 133  Pilates ...................................................... 1.0 (2)  
The Pilates method of body conditioning is a unique system of stretching and strengthening exercises used to develop long, lean bodies. This program uses floor exercises to strengthen and tone muscles, flatten abdominals, improve posture, flexibility, balance, agility, and coordination.

HNR 100  Introduction to Nursing .......................... 1.0 (1)  
Introduces the attitudes and behaviors desired in nurses. Discusses nursing roles and career opportunities, the health care setting, and other health care roles. Presents the history of nursing and introduces the student to legal and ethical issues related to the role and scope of practice of the licensed practical nurse and the registered nurse. Introduces basic nursing theory concepts related to perception, empathy, health, wellness, holistic healthcare, cultural considerations, and the impact of illness on the individual and his/her significant others. Covers beginning communication skills and basic teaching/learning principles. This course may be taken before admission to the nursing program. Group 2 course.

HNR 101  Fundamentals of Nursing–Lecture .............. 4.0 (4)  
Prerequisite(s): BIO 227, MTH 111 or equivalent  
Corequisite(s): HNR 100, HNR 102, HNR 106, and BIO 228  
Introduces the student to the principles and skills necessary to provide safe, basic nursing care. Presents the nursing process, beginning assessment skills, and documentation. Introduces concepts related to the environment, maintenance of safety, hygiene, asepsis, skin integrity, mobility, comfort, rest, nutrition, and elimination. Introduces concepts related to human growth and development, stress, and adaptation. Includes basic principles of perioperative care, cancer nursing, and selected medication administration skills. Group 2 course.

HNR 102  Fundamentals of Nursing–Clinical .............. 4.0 (12)  
Prerequisite(s): BIO 227  
Corequisite(s): HNR 100, 101, 106, and BIO 228, CIT 122A, HAH 100C  
Laboratory and/or hospital experience providing opportunities to practice and apply the concepts presented in HNR 100 and 101. Includes laboratory demonstration, practice, and evaluation of selected skills related to assessment, hygiene and comfort, transfer techniques, mobility, infection control, insertion and care of urinary catheters, enemas, nasogastric tube insertion, tube feedings, and wound care. Group 2 course.

HNR 107  Pharmacology II ..................................... 2.0 (2)  
Prerequisite(s): BIO 228, HNR 106 or instructor permission.  
Note: Fall 2009 is the last semester this course will be offered.  
Students must check with their nursing advisor to assure correct placement in this course. Students who fail HNR 107 will be required to repeat HNR 108.  
Emphasizes principles underlying application of the nursing process to drug therapy. Utilizes a prototype approach to discuss general characteristics of drugs, biochemical actions in the body; and usual route and dose. Provides the student with a knowledge base to make pertinent observations; recognize therapeutic, undesired and unexpected results; and to take appropriate actions. Group 2 course.

HNR 108  Pharmacology ......................................... 3.0 (3)  
Prerequisite(s): MTH 111 or equivalent.  
Corequisite(s): BIO 228  
Students learn safe and effective preparation and administration principles for selected drug categories, principles related to biochemical drug mechanisms of oral, intravenous, and parenteral drug therapy. Drug interactions, side effects and treatment of adverse drug reactions are also included. Legal statutes regulating drug administration within the scope of the licensed practical nurse and registered professional nurse are presented. Emphasis is placed on principles of the nursing process as it relates to drug therapy. This course may be taken before admission to the nursing program. Group 2 course.

HNR 125  Nrsng Across the Lifespan–Lecture .......... 5.0 (5)  
Prerequisite(s): HNR 100, 101, 102, BIO 228  
Corequisite(s): HNR 126  
Prerequisite(s): BIO 227, MTH 111 or equivalent.  
Introduces basic concepts of nursing management for adult medical and surgical patients including alterations in fluid and electrolyte balance, endocrine regulation, circulation, respiratory gas exchange, neurological sensation and perception, mobility, nutrition and elimination and the immune system. Basic concepts of uncomplicated pregnancy, birth, neonatal care and pediatric management are introduced. Group 2 course.
HNR 126  Nrsng Across the Lifespan-Clinical…….5.0 (15)
Prerequisite(s): HNR 102, HNR 108, BIO 228 and
CPR certification.
Corequisite(s): HNR 125
This course provides clinical learning experience and opportu-
nities to apply patient care principles studied in co-requisite
course HNR 125. Students spend time on medical, surgical,
and specialty units for a total of 225 hours. Group 2 course.

HNR 145  Practical Nursing Role & Issues .......... 1.0 (1)
Prerequisite(s): HNR 125
Corequisite(s): HNR 141, HNR 142
Reviews ethical/legal responsibilities of the LPN. Covers is-
issues related to LPN organizations, continuing education, and
licensure. Discusses occupational opportunities and provides
information on employment search and job-seeking skills.
Group 2 course.

HNR 200  LPN to ADN Transition..........................3.0 (3)
Prerequisite(s): Admission to ADN completion program.
Corequisite(s): HAH 100C
Presentation of the program philosophy, basic nursing theory,
and the legal and ethical issues related to the role of the regis-
tered nurse. Emphasizes the difference between LPN and RN
responsibilities, decision-making, and accountability. Reviews
the nursing process with emphasis on analysis and planning.
Prepares in communication skills, interviewing techniques, and
principles of client teaching. Clinical experience provides
opportunities to evaluate current nursing skills and to apply
principles presented in lecture. Group 2 course.

HNR 241  Adv. Maternal Child Nursing-Lec........ 3.0 (3)
Prerequisite(s): HNR 125/126
Corequisite(s): HNR 242
This family focused course introduces use of the nursing
process in wellness promotion and crisis prevention in fami-
lies. It explores low and high-risk categories of complications
within the child-bearing and child-rearing family stages. These
concepts will be discussed as they relate to prenatal, intra-
partal, and post-partal nursing care. This course also presents
complex health problems during childhood and includes a
discussion of death and dying in childhood. Several supportive
community resources will be identified for the family at risk
for crisis. Group 2 course.

HNR 242  Adv. Maternal Child Nursing-Clinical ...2.0 (6)
Prerequisite(s): HNR 125/126
Corequisite(s): HNR 241
This course provides the clinical application of the prin-
ciples presented in HNR 241. Students will be assigned to
selected community or hospital settings where they will par-
take of observing and/or directly providing care to at-risk
families coping with childbearing and/or child-rearing issues.
Risk factors could include developmental and psychosocial
factors and physical alterations or complications. Students will
also participate in a group seminar each week where various
clinical experiences will be discussed. Group 2 course.

HNR 243  Nrsng Mgmt Complex Patients I-Lec ....... 3.0 (3)
Prerequisite(s): HNR 126, HNR 125
Corequisite(s): HNR 244
Presentation of nursing interventions required for clients with
complex medical and/or surgical disorders. This course em-
phasizes advanced nursing assessment, analysis, decision mak-
ing, critical thinking, and nursing accountability. The focus
is on clients with multiple complex requirements. Geriatric
considerations are integrated and presented throughout the
course. Group 2 course.

HNR 244  Nrsng Mgmt Complex Patients I-Clinical 4.0 (12)
Prerequisite(s): HNR 125/126
Corequisite(s): HNR 243
Approximately 180 hours of clinical experience providing
opportunities to apply principles presented in HNR 243.
Emphasis is upon refinement of organization, decision-
making, and priority-setting skills in the care of multiple clients
with complex medical/surgical disorders. Group 2 course.

HNR 251  Mental Health Nursing-Lec ...............2.0 (2)
Prerequisite(s): HNR 125, HNR 126, PSY 101, BIO 228,
BIO 240
Corequisite(s): HNR 252 or instructor permission.
This course is designed to enable the student to better under-
stand behavior exhibited by persons with mental disorders.
Classifications, theories, and symptoms of mental health prob-
lems and psychiatric disorders are presented. Interventions
such as individual, group, and activity therapies are explored.
Emphasis is placed on the ways by which the nurse assesses,
develops, implements, and evaluates a therapeutic plan for
the client. Group 2 course.

HNR 252  Mental Health Nursing-Clinical..........1.0 (3)
Prerequisite(s): HNR 125/126
Corequisite(s): HNR 251
A 45 hour clinical course providing opportunities to apply
principles presented in HNR 251 in a variety of local clin-
cal agencies and mental health treatment settings. Emphasis
is placed upon understanding a broad range of mental health
diagnoses and therapeutic nursing modalities for clients expe-
riencing these issues. Group 2 course.

HNR 261  Nrsng Mgmt Complex Patients II-Lec....3.0 (3)
Prerequisite(s): HNR 243, HNR 244
Corequisite(s): HNR 262
The course introduces principles of leadership and manage-
ment as they relate to the delivery of nursing care to a group
of clients. The course discusses a variety of nursing manage-
ment concepts including delegation, team building, managing
change, and conflict resolution. It integrates the quality
improvement process, evidence based practice, legal and ethical
practice issues, and recent trends in nursing practice. Students
build on theory constructs from HNR 244 to deepen their
understanding of nursing care for complex medical and surgical
patients in addition to integrating management strategies.
Group 2 course.
HST 101  Western Civilization to 1500.............4.0 (4)
This is the first course in a year-long study of western civiliza-
ions from the birth of civilization to the Early Middle Ages.
The main instructional goal is to have students demonstrate
an understanding of the diverse societies and culture of the
western world. It’s important that students recognize that
western civilization includes many diverse cultures and has
interacted with many other diverse cultures throughout its
development. In addition, students will analyze the distinctive
characteristics of western civilizations, identify the achieve-
ments and limitations of western civilizations, and develop an
awareness of how contemporary problems were caused by past
forces. As students achieve these goals, they will develop skills
in communication and critical thinking. Group 1 course.

HST 111  U.S. History to 1865........................4.0 (4)
This is the first course in a year-long study of U.S. History
from Native American origins to the modern world. The main
instructional goal is to have students demonstrate an under-
standing of how diverse societies and cultures have contributed
to the development of the United States, identify the achieve-
ments and limitations of these developments, and develop an
awareness of how contemporary problems were caused by past
forces. As students achieve this goal, they will develop skills in
communication and critical thinking. Students will learn how
American society developed from Native American origins
through Reconstruction, and how society has impacted both
individuals and groups in America. Group 1 course.

HST 112  U.S. History Since 1865......................4.0 (4)
This is the first course in a year-long study of U.S. History
from Native American origins to the modern world. A main
instructional goal is to have students demonstrate an under-
standing of how diverse societies and cultures have contributed
to the development of the United States. In addition, students
will analyze the distinctive characteristics of the development
of the US, identify the achievements and limitations of these
developments, and develop an awareness of how contemporary
problems were caused by past forces. As students achieve these
goals, they will develop skills in communication and critical
thinking. Students will learn how American society developed
from Reconstruction to the post-Vietnam era, and how society
has impacted both individuals and groups in America.
Group 1 course.
HST 211  Native American History......................... 3.0 (3)
A history of the Native American experience from the pre-
Columbian period to the post World War II era. Major
emphasis is placed upon the social, political, and economic
role of the Native American community in American society
and its unique role as a part of that society. Students will also
demonstrate an awareness of how contemporary problems
were caused by past forces. Students will develop skills in
analysis, critical thinking, historical reasoning and writing.
Group 1 course.

HST 212  African-American History......................... 3.0 (3)
A history of the African American experience from the African
origins to the modern era. Major emphasis is placed upon the
social, political, and economic role of the African American
community in American society and its unique role as a part
of that society. Students will also demonstrate an awareness of
how contemporary problems were caused by past forces. Stu-
dents will develop skills in analysis, critical thinking, historical
reasoning and writing. Group 1 course.

HST 213  American Women's History......................... 3.0 (3)
A history of American Women's experience from Native
American origins to the Modern Era. Major emphasis is
placed upon the social, political and economic role of Ameri-
can women in American society and their unique role as a part
of that society. Students will also demonstrate an awareness of
how contemporary problems were caused by past forces. Stu-
dents will develop skills in analysis, critical thinking, historical
reasoning and writing. Group 1 course.

HST 225  American Civil War................................. 3.0 (3)
This course is a study of the American Civil War. The instruc-
tional goal is to have students demonstrate through discus-
sions and essays the causes of the Civil War in antebellum America,
how the war was waged, why the North won and the South
lost the war, how the war affected American society, and how
the war led to Reconstruction. Students will demonstrate an
awareness of how contemporary problems were caused by past forces. Students will develop skills in analysis, critical thinking, historical
reasoning and writing. Group 1 course.

HST 228  The Vietnam War................................. 3.0 (3)
This course is a study of the history of the Vietnam War. The
instructional goal of this course is to have students demon-
strate through discussions and essays how America became
involved in Vietnam, how the war was waged, the war’s effect
on American society, and how the war affected Vietnam. Stu-
dents will also demonstrate an awareness of how Vietnemese culture affected the war and how Vietnam has affected America's contemporary society. Students will develop skills in
analysis, critical thinking, historical reasoning and writing.
Group 1 course.

HST 230  A History of Michigan......................... 3.0 (3)
The instructional goal of this course is to have students
demonstrate through discussion and essays the distinctive
characteristics of Michigan history, the common characteristics
of Michigan history as compared to other states, the identi-
fication of achievements and limitations of Native American
societies within Michigan, and an awareness of how con-
temporary problems were caused by past forces. This course
covers the period from the “earliest beginnings” to the “recent
past.” Students will develop skills in analysis, critical thinking, historical reasoning and writing. Group 1 course.

HST 235  20th Century Europe................................. 3.0 (3)
This course is a study of the history of Europe in the 20th
Century with emphasis on Germany, England, France, and
Russia. The instructional goal of this course is to have students
demonstrate through discussions and essays the distinctive
characteristics of European civilizations, the common charac-
teristics of European civilizations, the identification of achieve-
ments and limitations of European civilizations, and how
Europe has affected America and America affected Europe.
Students will demonstrate an awareness of how contemporary
problems were caused by past forces. Students will develop
skills in analysis, critical thinking, historical reasoning and writing. Group 1 course.

HUM 101  Introduction to Humanities.................. 3.0 (3)
An interdisciplinary study of Western Culture focusing on
the interrelationships of art, literature, and philosophy as they
reveal the major ideas and values of Classical Greek, Roman,
Medieval, and Renaissance civilizations. Group 1 course.

HUM 102  Introduction to Humanities.................. 3.0 (3)
An interdisciplinary study of Western Civilization focusing on
the interrelationships of art, literature, and philosophy as they
reveal the major ideas and values of the Reformation, Baroque,
Neo-Classic, Romantic, 19th Century and Modern periods.
Group 1 course.

HUM 111  American Experience.............................. 4.0 (4)
A cultural history of the United States focusing on unlocking
the “whys” and “hows” of our society by using an interdisci-
plinary approach to learning culture and history. The course
highlights the arts and lifestyles of Americans from the 17th
through the mid-19th centuries, and explains how society has
impacted both individuals and groups in America. Students
will also demonstrate an awareness of how contemporary
problems were caused by past forces. As students achieve this
goal, they will develop skills in analysis, critical thinking,
historical reasoning and writing. Group 1 course.

HUM 112  American Experience.............................. 4.0 (4)
A cultural history of the United States focusing on unlocking
the “whys” and “hows” of our society by using a multicultural
approach to learning the history. The course highlights the
arts and lifestyles of Americans from the mid-19th through
the 20th century and explains how society has impacted both
individuals and groups in America. Students will also dem-
strate an awareness of how contemporary problems were
caused by past forces. As students achieve this goal, they will develop skills in analysis, critical thinking, historical reasoning and writing. **Group 1 course.**

**HUM 116  World Cultures............................... 4.0 (4)**  
This course explores the arts and culture of Asia, Africa, Oceania, and the Americas utilizing an interdisciplinary and thematic approach which focuses on painting, sculpture, architecture, textiles, body art, masks, costumes, cultural rituals and social customs of each region. **Group 1 course.**

**HVA**  **Heating, Ventilation, Air Conditioning**

**HVA 101  Introduction to HVAC/R.................. 3.0 (4)**  
Recommended competencies: COMPASS placement in MTH 111 or higher and ENG 11/111 or higher, or co-enrollment in the appropriate developmental Math and English course.  
This course provides an introduction to heating, ventilation, air conditioning, and refrigeration. Through structured classroom and hands-on skill building, the student will learn the tools of the trade, how to solder and braze copper tubing, piping skills and trade mathematics. This course, or its equivalency, is required as a pre-requisite for students enrolled in HVA 105. **Group 2 course.**

**HVA 105  Thermodynamics of HVAC/R ............ 3.0 (4)**  
**Prerequisite(s): HVA 101**  
This course provides an introduction to heating, ventilation, air conditioning and refrigeration. Through structured classroom and hands-on skill building, the student will learn the thermodynamics of refrigeration. Students will also learn proper charging procedures and a basic approach to system troubleshooting using electrical meters and refrigeration gauges. This course, or its equivalency, is required as a pre-requisite for students enrolled in the HVA 121 course. **Group 2 course.**

**HVA 121  Fundamentals of Heating ................ 3.0 (4)**  
**Prerequisite(s): HVA 105**  
Through structured classroom and hands-on skill building, the student will learn air distribution systems, how to calculate proper sizing of chimneys, vents and flues, and alternating current. This course, or its equivalency, is required as a pre-requisite for students enrolled in the HVA 125 course. **Group 2 course.**

**HVA 125  A/C Applications .......................... 3.0 (4)**  
**Prerequisite(s): HVA 121**  
Through structured classroom and hands-on skill building, the student will learn about metering devices, accessories and option equipment, compressors, heat pumps, leak detection equipment, evacuation methods, recovery requirements and how to properly charge air conditioning and refrigeration equipment. **Group 2 course.**

**HVA 131  Gas Heating Diagnostics.................. 3.0 (4)**  
**Prerequisite(s): HVA 125**  
Through structured classroom and hands-on skill building, the student will learn troubleshooting techniques with oil heat, gas heat, and electric heat. Students will also learn how to troubleshoot cooling, heat pumps, and accessories. **Group 2 course.**

**HVA 135  Commercial HVAC/R...................... 3.0 (4)**  
**Prerequisite(s): HVA 131**  
Through structured classroom and hands-on skill building, the student will learn advanced troubleshooting techniques with cooling and heat pumps. Students will also learn about hydronic heating systems and air properties and system balancing. **Group 2 course.**

**LWE  Law Enforcement**

**LWE 102  Police Operations.......................... 4.0 (4)**  
**Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.**  
The student is introduced to educational and training requirements for employment in law enforcement, police community relations, the functions and objectives of a police department and the police response and responsibilities to the community. **Group 2 course.**

**LWE 195  Police Practicum............................ 4.0 (4)**  
This course will provide Law Enforcement students with the practical experience of observing five various shifts with officers. This should insure that candidates will understand what law enforcement officers actually do. Recording the experiences will also assist the student in report writing. **Group 2 course.**

**LWE 210  Cultural Awareness/Diversity ............ 2.0 (2)**  
**Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.**  
This course will explore ethics, cultural diversity, interpersonal skills and the laws as they apply to today’s modern policing. Title VII or the 1964 Civil Rights Act, Elliot Larson Civil Rights Act, Americans with Disabilities Act, ethnic intimidation, and sexual harassment will also be addressed. **Group 2 course.**

**LWE 212  Criminal Investigation..................... 3.0 (3)**  
**Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.**  
Students will be introduced to criminal investigation procedures including theory of an investigation, conduct at crime scenes, collection and preservation of physical evidence, methods used in police science laboratory, fingerprints, ballistics, documents, serology, photography, and related forensic sciences. **Group 2 course.**
LWE 214  Firearms ................................................. 4.0  (8)
Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.
This course will assist the students in the development of safety skills and the appropriate use of firearms in completing the Michigan Commission on Law Enforcement Standards basic firearms course. Included will be an orientation to firearms, policies, procedures, and liability of firearms use and hands-on firearms range techniques. Group 2 course.

LWE 215  Defensive Driving .................................. 3.0  (6)
Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.
Defensive Driving will cover motor vehicle law, its application and jurisdiction and vehicle stops. This course will also include the teaching of driving skills needed by a law officer. Group 2 course.

LWE 216  Traffic Enforcement & Invest .................. 3.0  (3)
Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.
Traffic Enforcement and Investigation will include traffic control enforcement, the law and prosecution of operating under the influence of alcohol, accident investigation, and traffic accident evidence collection. Group 2 course.

LWE 218  Physical Training/Wellness ..................... 4.0  (5)
Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.
This course is designed to give the students a complete understanding of wellness/physical fitness. The goal of the class is to develop a mentalty that fitness is long term. Includes course lectures on the following topics: fitness and wellness, benefits and guidelines for exercise, coronary risk factors, stress management, nutrition, weight control, low back care, motivation and behavior change, and various ways to perform fitness tasks. This class also includes workouts, and testing students against Cooper Standards. Group 2 course.

LWE 225  Defensive Tactics ................................... 4.0  (5)
Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment. Students must also be in excellent physical condition.
Students learn subject control with new mandatory guidelines from MCOLES. Students will understand survival mindset, tactical communication, fear/anger management, and post force incident responsibilities. Student will demonstrate proficiency in 13 defensive tactics outcomes. Group 2 course.

LWE 226  Michigan Criminal Law .......................... 3.0  (3)
Prerequisite(s): Must be registered with LWE coordinator prior to class enrollment.
The study of substantive criminal law as a means of defining and preserving social order. Sources of criminal law; classification of crimes against persons, property and public welfare; principles of criminal liability; elements necessary to establish crime and criminal intent; specific crimes and defenses; and constitutional limitations are examined. Group 2 course.

LWE 227  Criminal Procedures ............................ 3.0  (3)
Prerequisite(s): LWE 226; must be registered with LWE coordinator prior to class enrollment.
Criminal Procedures will study the administration of criminal justice, the nature and scope of police power, the concept of exclusion, laws of arrest, search and seizure and interrogation, the acquisition of evidence, and judicial protection of the accused. Group 2 course.

LWE 228  Police Radar/PBT Operations .................... 3.0  (3)
Prerequisite(s): Must register with the LWE coordinator prior to class enrollment.
This is an optional class to the Law Enforcement Police academy. The class will teach the basic operation and provide clarification for Radar and PBT operation in the state of Michigan. Group 2 course.

MDK 100  Survival at Sea ..................................... 1.0  (2)
This course of instruction covers the following: concentrated instruction and training for the U.S. Coast Guard certification as LIFEBOATMAN; including the fundamentals of seamanship, small boat handling with power and sail; construction, equipment, and marking of the standard lifeboat; construction, equipment, and operation of inflatable life rafts; abandon ship procedures, man overboard procedures, and survival swimming; the launching and retrieval of lifeboats; sailboat nomenclature and operation. STCW '95. Group 2 course.

MDK 104  Rigging & Ship Maintenance Lab ............. 1.0  (2)
The purpose of this course is to provide the cadet an opportunity to acquire practical experience in general seamanship: including marlinespike seamanship, line handling; splicing line, splicing wire rope; rigging, block and tackle nomenclature and use; vessel maintenance, the practical application of the procedures and equipment used in vessel upkeep. Group 2 course.

MDK 106  Watchstanding I ................................... 1.0  (2)
Prerequisite(s): MDK 100
The purpose of this course is to provide an opportunity for the cadet to acquire practical experience in shiphandling with vessels sufficiently large to duplicate shiphandling problems encountered with much larger vessels. Topics covered include the general principles of ship control for both single and twin propeller vessels. Cadets are exercised in line handling, towing, anchoring techniques, landing techniques, and shipboard safety. Cadets will then advance through the use of simulation to shiphandling exercises dealing with the general principles of vessel control and the problems of handling a vessel in narrow channels. STCW '95. Group 2 course.

MDK 111  Marine Communications ........................ 2.0  (2)
This course is designed to acquaint the student with the Global Maritime and Distress Safety System. It includes the basic layout of the GMDSS, communication equipment re-
requirements, licensing requirements, principles and procedures for marine communications, the characteristics of radio wave propagation, frequencies, and modulation. Included also is the Morse Code, Flashing Light and general Distress Signals. STCW '95. Group 2 course.

MDK 112 Rules of the Nautical Road ......................... 2.0 (2)
Prerequisite(s): MDK 100 or instructor permission.
Comprehensive study of the international rules of the road-COLREGS-including their origin, purpose, history, technical provisions, and application. Included is a comparative study of both international and inland rules, their interpretation and practical application as well as a study of case histories and legal interpretations resulting from collisions at sea. STCW '95. Group 2 course.

MDK 121 Navigation I ........................................... 3.0 (3)
Prerequisite(s): MATH 122 (FSU)
Corequisite(s): MDK 122
An introduction to principles of piloting and marine navigation. Includes chart projection, the magnetic compass, chart usage, buoyage systems, aids to navigation, fixes and running fixes, and the use of standard tables. STCW '95. Group 2 course.

MDK 122 Navigation I Lab ...................................... 1.0 (2)
Prerequisite(s): MATH 122 (FSU)
Corequisite(s): MDK 121
This lab is taken concurrently with MDK 121 and concentrates on applying the principles of piloting to plotting on the chart. Chart projection and use will be introduced. Dead reckoning, terrestrial fixes, set and drift, lines of position, and the use of navigational instruments will be covered. STCW '95. Group 2 course.

MDK 149 Damage Control & Safety .......................... 2.0 (2)
Prerequisite(s): MDK 100 or instructor permission.
This course is designed to give the cadet a comprehensive knowledge of shipboard safety with particular emphasis on fire fighting and damage control. Subject areas include: personal safety, pollution, U.S. Coast Guard rules and regulations, temporary damage repair, shoring principles, and practical shoring problems. STCW '95. Group 2 course.

MDK 200 Ship Business & Labor Relations ............ 3.0 (3)
This course provides instruction in the organization, administrative functions, and management of a merchant vessel as well as the systems of operation of ship's business. It includes the study of union contracts, grievance procedures and labor management relations. Group 2 course.

MDK 204 Marine Supervisory Lab ............................. 1.0 (2)
This course will provide senior cadets with the experience of supervising subordinate cadets. This experience will include job planning, sequencing of tasks, tools and equipment needed, and personnel required to complete the job. The student will experience what it will be like to be responsible for the crew both in terms of safety and output. Group 2 course.

MDK 206 Watchstanding II .................................... 1.0 (2)
Prerequisite(s): MDK 210 or instructor permission.
The purpose of this course is to begin to develop a cadet's piloting and watch management skills. The use of the Shiphandling Simulator/Academy Vessels will allow the development of the Bridge Team Concept through piloting exercises. Group 2 course.

MDK 210 Sea Project Deck .................................... 6.0 (6)
Prerequisite(s): Must complete first academic year with a 2.0 or better in all required courses.
During this course the cadet is on board a Great Lakes commercial vessel, an ocean vessel or the Academy training ship. The cadet follows a prescribed course of study of vessel operations, safety and navigation equipment and techniques. In addition, the cadet spends a minimum of eight hours per day under supervision of licensed officers gaining experience in various duties and responsibilities. Group 2 course.

MDK 221 Lakes Piloting ....................................... 2.0 (2)
Prerequisite(s): MDK 121, MDK 210
Study of the Great Lakes and principal ports; this includes currents, depths, aids to navigation, prevailing winds and their effects, recommended courses, shoals, reefs and high traffic areas. Historic analysis will explain current practices. Group 2 course.

MDK 222 River Piloting ....................................... 3.0 (3)
Prerequisite(s): MDK 121, MDK 210
An in-depth study of the rivers, channels, and aids to navigation in these rivers and channels. The focus will be on the rivers that make up the Great Lakes connecting bodies, such as the St. Mary's, St. Clair, Detroit Rivers and the Welland Canal. Group 2 course.

MDK 224 Navigation III ....................................... 3.0 (3)
Prerequisite(s): MDK 221, MATH 122 (FSU)
An introduction to nautical astronomy concerned with the practical application of celestial navigation, the solving of the spherical triangle, star identification, measurement of time and use of instruments. This course will cover plane, mid-latitude, and mercator sailings and how to apply them to navigational problems through the various time zones. Sunrise, sunset, twilight, moonrise, and moonset calculations for a moving vessel will be covered. STCW '95. Group 2 course.

MDK 231 Electronic Navigation ............................... 3.0 (3)
Prerequisite(s): MDK 210
Corequisite(s): MDK 232
An in-depth study of various electronic navigation systems with emphasis on radar and covering the theory, operation, use and general maintenance of each system. Required course, must be successfully completed before student may receive Radar Observer Certificate. STCW '95. Group 2 course.
MDK 232  Electronic Navigation Lab .......................... 1.0  (2)
Prerequisite(s): MDK 210
Corequisite(s): MDK 231
A practical course to understand the use and operation of a Marine Radar, how to avoid collision situations (Rapid Radar Plotting), use and operation of Automatic Collision Avoidance System, Gyrocompass theory, Loran “C” theory and operation, GPS theory and operation, depth sounder theory and operation. Required course, must be successfully completed before student may receive Radar Observer Certificate. STCW ’95. Group 2 course.

MDK 233  Automatic Radar Plotting Aids .................. 1.0  (2)
Corequisite(s): MDK 231, MDK 232
This course presents the principles and operation of automatic radar plotting aids. It includes the legal aspects of ARPA including IMO and USCG standards, the theory of input and processing characteristics of ARPA, the theory of operation, control functions and adjustments, the acquisition and tracking of contacts, the limitations and potential errors of ARPA, and special ARPA related features. The cadet will demonstrate the setup and practical use of two actual automatic collision avoidance radars. STCW ’95. Group 2 course.

MDK 241  Ship Construction ................................. 2.0  (2)
Prerequisite(s): MATH 122 (FSU), MNG 311; completion of first academic year with a 2.0 or higher in all required courses. A study of the principles of hull construction as applied to all types of vessels. Includes construction nomenclature, criteria of design, methods of construction, materials used in construction, and the forces acting on the hull. STCW ’95. Group 2 course.

MDK 242  Ship Stability ...................................... 3.0  (3)
Prerequisite(s): MDK 210, MATH 122 (FSU)
A study of the principles of stability; righting moment and righting arm; calculation of metacentric height; inclining experiment; stability computers and tables; practical stability and trim considerations. STCW ’95. Group 2 course.

MDK 244  Dry Cargo Stowage ............................... 3.0  (3)
Prerequisite(s): MDK 210, MDK 242
Principles and problems of the stowage and carriage of cargo: bulk cargo, container cargo, refrigerated cargo, grain cargo and dangerous cargo; cargo handling operations, both loading and unloading equipment. Cargo stowage plans will be developed and reviewed. Students will critique loads they were involved with during their time aboard ship. STCW ’95. Group 2 course.

MDK 245  Liquid Cargo Stowage ............................ 2.0  (2)
Prerequisite(s): MDK 210, MDK 242
A study of the tanker industry, and the operational aspects of the tank vessel; pollution prevention, precautions and procedures; layouts of different types of tankers; operations sequence and oil tanker construction and terminology. USCG and OPA ’90 regulations will be covered. STCW ’95. Group 2 course.

MDK 250  Stability for the Engineer ....................... 1.0  (1)
Prerequisite(s): MATH 122 (FSU), MNG 100, 104, 106
Principles, terms and procedures used in the determination of transverse, longitudinal, and damage stability of ships. Investigation of the physical laws affecting a floating body. Effects of cargo operation, free surface, fuel consumption, and flooding on vessel stability. Scrutiny of case studies involving both partial or total loss of stability. Group 2 course.

MDK 311  Sea Project Deck ................................. 6.0  (6)
Prerequisite(s): Completion of second academic year with a 2.0 or higher in all required courses. This course is a continuation of MDK 210 and is designed to provide the cadet with advanced knowledge and sailing time to meet the licensing requirements prescribed by the U.S. Coast Guard and the criteria established by the Maritime Administration. STCW ’95. Group 2 course.

MDK 312  Sea Project Deck ................................. 6.0  (6)
Prerequisite(s): MDK 311
This course is a continuation of MDK 311 and is designed to further enhance the cadet’s professional knowledge and sailing time to meet licensing requirements of the U.S. Coast Guard and the criteria established by the Maritime Administration. STCW ’95. Group 2 course.

MDK 330  STCW Elementary First Aid .................... 2.0  (2)
A study of the ship’s officer responsibilities to the owner, personnel, vessel, public and governmental agencies. Group 2 course.

MDK 340  Maritime Law ...................................... 2.0  (2)
This course meets the mandatory minimum requirements specified under STCW as related to medical first aid and basic safety training for all merchant mariners. This course is part of the STCW certification process. Cadets will learn to take immediate action upon encountering an accident or other medical emergency. STCW ’95. Group 2 course.

MDK 344  Cargo Systems ................................. 2.0  (2)
Prerequisite(s): MDK 210, MDK 242
An in-depth study of the Great Lakes self-unloading vessel, container vessels, tankers, passenger vessels, regulations concerning hazardous materials, government regulations and the relationship between vessel and shore side operations. Group 2 course.

MDK 346  Bridge Team Management ..................... 2.0  (3)
Prerequisite(s): MDK 206
The purpose of this course is to further develop through the use of the Shiphandling Simulator, the cadet’s watch management and watch standing skills, bridge team problem solving, and piloting procedures for various confined waterways on the Great Lakes and other waterways. The cadet will be required to operate the normal pilot house equipment, manage bridge personnel, and be familiar with the paperwork required in the operation of a vessel. STCW ’95. Group 2 course.
MDK 348 Pilot/Mate License Prep .................... 2.0 (2)
Prerequisite(s): MDK 312 or instructor permission.
A complete review of all professional subjects studied in the Maritime program pragmatically developed to reflect the essentials of the U.S. Coast Guard examinations. The final grade for this course is dependent on taking the U.S. Coast Guard exam. Cadets must complete all MDK courses with a 2.0 or better. (This class is for GLMA cadets only.) Group 2 course.

MFG  Manufacturing Technology

MFG 111 Math for Manufacturing .................... 3.0 (3)
Prerequisite(s): MTH 23 or COMPASS placement into MTH 111.
This course will apply principles of mathematics, geometry, and basic trigonometry to applications in manufacturing. Topics will include proportions, calculation of machine speed and feed and geometric relationships of triangles and circles. Problem solving will require the use of the Pythagorean Theorem and the sine, cosine, and tangent functions to solve right triangles. The Law of Sines and Law of Cosines will be used to solve oblique triangle applications. Group 2 course.

MFG 113 Machining I ............................... 3.0 (5)
The student will be introduced to measurement and the safe use of layout and bench tools, drill press operations, and basic lathe facing and turning operations. Basic vertical milling operations will also be included. Group 2 course.

MFG 114 Machining II ............................... 3.0 (6)
Prerequisite(s): MFG 113
This course will introduce students to machining procedures beyond the basic operations. The student should have previously acquired basic machining knowledge and skills. Lathe procedures will include threading, boring, and cutting tapers. Milling operations will include the offset boring head, indexing, and key seats. Students will perform precision grinding of parallel and angular surfaces using gauge blocks and a sine bar. Electrical discharge machining (EDM) will be introduced. Students will study the processes and perform hands on operations. Group 2 course.

MFG 212 Computer-Aided Machining (CAM) ......... 3.0 (4)
Prerequisite(s): MFG 211 or instructor permission.
This course introduces the student to the concepts of computer aided machining (CAM). Students will use CAM software to generate programs for the CNC lathe and milling machine. The programs will be created using drawings produced in the CAM system as well as drawings produced in the CAM system as well as drawings imported from第三人party CAD or solid modeling software. The tool path is verified using the CAM software graphic simulation prior to running selected programs on the CNC machines. Group 2 course.

MFG 215 Machining III, Lathe ....................... 3.0 (6)
Prerequisite(s): MFG 114
This course offers machining lab experience for students who want to enhance skills obtained in previous courses. The assignments will focus on lathe work which will include threads, tapers, boring, the use of carbide tooling and the four-jaw chuck. The student will continue to develop efficient methods and work to closer tolerances. Group 2 course.

MFG 216 Machining IV, Mill and Grind ............. 3.0 (6)
Prerequisite(s): MFG 114
This course offers milling and precision grinding lab experience for students who want to enhance the skills obtained in previous courses. The assignments will include milling operations, rotary table, OD grinding, and precision surface grinding. The student will continue to develop efficient methods and work to closer tolerances. Group 2 course.

For course availability, refer to www.nmc.edu/schedule or the Schedule of Classes.
MGT  Management

MGT 241  Principles of Management  ..................... 3.0  (3)
Prerequisite(s): BUS 101 is strongly recommended.
What do managers actually do? This applications-oriented course will teach you the basics of day-to-day managerial work-planning, organization, leading, and controlling. Special emphasis with realistic scenarios are explored in leadership, communication, planning, conflict, change, strategy, problem solving, teams and work groups. Group 2 course.

MGT 245  Principles of Entrepreneurship  .......... 3.0  (3)
Prerequisite(s): BUS 101 is strongly recommended.
This course provides practical knowledge needed for entrepreneurs with special attention focusing on creativity, opportunity, and feasibility of a new start up. Sources of funding and resources for small ventures are addressed in depth in this course to prepare the learner for practical application. This course primarily focuses on idea generation and start-up of the business including risk, funding sources, cash-flow, and awareness of external environmental factors that impact the business. The course project is the development of a feasibility study or related project. Feasibility studies include the extent to which an idea is viable, realistic and the extent to which the entrepreneur is aware of internal and external forces that could affect the business. Group 2 course.

MGT 251  Human Resources Management .......... 3.0  (3)
Prerequisite(s): BUS 101 is strongly recommended.
Human Resource managers are especially challenged today navigating employment waters that require expertise in employment legislation, recruitment, selection, training and development, compensation, employee appraisal, labor relations, safety and health. Theory and practice of these topics are explored with special emphasis on day-to-day applications in the workplace. Group 2 course.

MKT  Marketing

MKT 201  Principles of Marketing ......................... 3.0  (3)
Prerequisite(s): BUS 101 is strongly recommended.
This course surveys the wide scope of marketing as it influences both profit and nonprofit firms with emphasis on the marketing concept as a business philosophy. Ethics in marketing will be discussed. Elements of the marketing mix and the elements of the promotional mix will be studied and incorporated into a marketing plan or a related project. Target marketing and segmentation of consumer markets along with consumer buying behavior will be studied. Group 2 course.

MKT 210  Principles of Selling  ......................... 3.0  (3)
Prerequisite(s): MKT 201 is strongly recommended.
This course will prepare the learner with an understanding of consumer buying behavior and the role of personal selling as a relationship marketing tool and the importance of the sales function to the organization's success. Ethical and legal issues in selling, psychological influences of consumer buying, and the relationship selling process will be discussed in this course. Students will give selling presentations to the class. Students will also learn about technology automation used in selling, servicing prospects, and gain an understanding of selling in the global environment. Group 2 course.

MKT 241  Principles of Advertising ...................... 3.0  (3)
Prerequisite(s): MKT 201 is strongly recommended.
This course will prepare the learner with an understanding of the real economic, social and cultural role of advertising and conversely, the impact of society’s values on advertising. The strategic function of advertising within the broader context of business and marketing will be discussed in this course. The creative aspects of advertising will be studied, and students will develop an advertising campaign or related project. The global effect of marketing and advertising on business and national economics will be addressed along with ethical issues related to truth in advertising in today’s society. Group 2 course.

MLA  Modern Language - American Sign Language

MLA 161  American Sign Language I .............. 4.0  (4)
A comprehensive introduction to American Sign Language (ASL), used by members of the Deaf community in the United States and parts of Canada. Focuses on conversation in signs, basic rules of grammar, and cultural aspects of the Deaf community with emphasis on use of signing space; use of non-manual components, including facial expressions and body language/posture and an introduction to finger-spelling. Through acquisition of basic vocabulary and knowledge of basic syntax, this first course will lay the foundation for students to go on to achieve a more thorough knowledge of American Sign Language. (No previous knowledge of the topic or fluency in ASL is required.) Group 2 course.

MLA 162  American Sign Language II .............. 4.0  (4)
Prerequisite(s): MLA 161, or instructor permission.
Continuation of basic American Sign Language (ASL) and cultural study, with emphasis on further development of receptive and expressive skills, fingerspelling, vocabulary building, and grammatical structures. Introduces sign variations (regional and ethnic) and encourages more creative use of expression, descriptive adjectives, body language/postures, and the signing space. Group 2 course.

MLA 163  Conversational Sign Language .......... 4.0  (4)
Note: Minimum enrollment of ten (10) students is required.
Prerequisite(s): MLA 161 and MLA 162, or instructor permission.
A skills class designed to further increase the student’s expressive and receptive “ASL” skills. The technical aspects of this course include proper voicing, Code of Ethics, the analysis of transliteration vs. interpreting, as well as the accurate translation of idiomatic phrases from English to American Sign Language, and American Sign Language to English. Group 2 course.
MLA 166  Intermediate Fingerspelling .................. 3.0 (3)
Note: Minimum enrollment of ten (10) students is required.
A skills class providing concentrated instruction and practice in both expressive and receptive fingerspelling. The student will develop a better understanding of the manual alphabet and number system used in American Sign Language. Group 2 course.

MLF  Modern Language - French

MLF 101  Elementary French I ......................... 4.0 (4)
Note: Minimum enrollment of ten (10) students is required.
A comprehensive introduction to the French language through development of the four skills of listening, speaking, reading and writing, while acquiring cultural knowledge and understanding of French-speaking peoples of the world. Students will learn communicative strategies to help them speak and write in French and interpretive strategies to help them comprehend spoken and written language, all within the context of cultural concepts and themes. Course is designed as an entry point for students approaching the formal study of French for the first time. Group 2 course.

MLF 102  Elementary French II ....................... 4.0 (4)
Note: Minimum enrollment of ten (10) students is required.
Prerequisite(s): MLF 101, one year of high school French, or instructor permission.
See course description for MLF 101. Group 2 course.

MLF 201  Intermediate French I ....................... 4.0 (4)
Note: Minimum enrollment of ten (10) students is required.
Prerequisite(s): Entry requires MLF 102, or two years high school French, or instructor permission.
Review of language skills and cultural knowledge already acquired in the elementary level coursework. Further development of language proficiency with expansion of oral and written communication skills and reading and listening skills. Continuation and deepening of cultural studies through exposure to and study of a variety of cultural expressions such as literature, film, music, art, online newspapers and other foreign language websites. Group 1 course.

MLF 202  Intermediate French II ...................... 4.0 (4)
Note: Minimum enrollment of ten (10) students is required.
Prerequisite(s): MLF 201, or instructor permission.
See course description for MLF 201. Group 1 course.

MLS Modern Language - Spanish

MLS 121  Elementary Spanish I ....................... 4.0 (4)
A comprehensive introduction to the Spanish language through development of the four skills of listening, speaking, reading and writing, while acquiring cultural knowledge and understanding of Spanish-speaking peoples of the world. Students will learn communicative strategies to help them speak and write in Spanish and interpretive strategies to help them comprehend spoken and written language, all within the context of cultural concepts and themes. Course is designed as an entry point for students approaching the formal study of Spanish for the first time. Group 2 course.

MLS 122  Elementary Spanish II ....................... 4.0 (4)
Prerequisite(s): MLS 121, one year of high school Spanish, or instructor permission.
This is a continuation of MLS 121 and focuses on the expansion of vocabulary and the further comprehension and application of grammar and idiomatic usage. Group 2 course.

MLS 221  Intermediate Spanish I ..................... 4.0 (4)
Prerequisite(s): MLS 122, two years high school Spanish, or instructor permission.
Review of language skills and cultural knowledge already acquired in the elementary level coursework. Further development of language proficiency with expansion of oral and written communication skills and reading and listening skills. Continuation and deepening of cultural studies through exposure to and study of a variety of cultural expressions such as literature, film, music, art, online newspapers and other foreign language websites. Group 1 course.

MLS 222  Intermediate Spanish II .................... 4.0 (4)
Prerequisite(s): MLS 221 or instructor permission.
See course description for MLS 221. Group 1 course.
MNG  Maritime Engineering

MNG 100  Intro to Marine Engineering .................. 1.0 (2)
This course is a general introduction to the shipboard Engine Room. The duties and responsibilities of the engine room personnel will be covered. The course will include an introduction to the engine room propulsion systems (Diesel and Steam), and a study of the operation of the ship’s steering gear and deck machinery. This course provides a foundation for the deck and engineering cadet to build upon in his/her program of study. Group 2 course.

MNG 104  Engine Systems Graphics .................. 2.0 (3)
Prerequisite(s): MNG 100
Corequisite(s): MNG 110
The course will introduce the student to the proper use of measuring systems and drafting equipment. The course will develop the correct techniques used in the production of multview projection, orthographic representation, auxiliary views, section views, and dimensioning. The student will be familiar with the correct (ANSI) symbols used in piping, electrical, and fluid power schematics. The student will be instructed in the use of AutoCAD LT to produce the listed topics. STCW ’95. Group 2 course.

MNG 105  Shipboard Information Systems ............ 3.0 (3)
Prerequisite(s): MNG 104, MNG 105, MNG 110, MTH 111
This course is designed to cover the construction, operation, and maintenance of equipment. Sub systems such as fuel handling and combustion chemistry; air handling; water preparation and chemistry; automated combustion systems; and water regulation systems are covered in detail. Special emphasis is placed on USCG regulations and STCW competencies. STCW ’95. Group 2 course.

MNG 110  Engineering Mechanics ..................... 3.0 (4)
Prerequisite(s): MNG 100
Corequisite(s): MNG 104
Survey of the construction, operation, and maintenance of shipboard systems. The major emphasis will be on piping, valves, control valves, and pumps. Practical application of the above items will be supported in the lab portion of this course. STCW ’95. Group 2 course.

MNG 175  Refrigeration .................................. 3.0 (3)
Prerequisite(s): MNG 110, PHY 121
This course provides instruction in the operation and maintenance of refrigeration and air conditioning equipment used on merchant vessels. It covers the theory of refrigeration and the practical operation of refrigeration plants. Lecture is reinforced with the use of hands-on labs. STCW ’95. Group 2 course.

MNG 210  Diesel Engineering .............................. 7.0 (10)
Prerequisite(s): MNG 110, MTH 111
A comprehensive course dealing with the development of the diesel engine as it applies to marine propulsion. This course is designed to cover the construction, operation, and maintenance of the marine diesel engine and its support systems. Lecture is reinforced with extensive use of hands on labs and computerized simulations. STCW ’95. Group 2 course.

MNG 221  Marine Boilers .................................. 3.5 (5)
Prerequisite(s): MNG 104, MNG 105, MNG 110, MTH 111
This is an intensive study of marine boilers and covers all types of water tube boilers. Emphasis is placed on construction, operation and maintenance of equipment. Sub systems such as fuel handling and combustion chemistry; air handling; water preparation and chemistry; automated combustion systems; and water regulation systems are covered in detail. Special emphasis is placed on USCG regulations and STCW competencies. STCW ’95. Group 2 course.

MNG 222  Marine Turbines ................................ 2.5 (3)
Prerequisite(s): MNG 104, MNG 105, MNG 110, MTH 111
This course is an in-depth study of marine turbine propulsion plants. It covers theory, construction, operation, maintenance and inspection procedures typically associated with marine use. Associated systems such as lubrication, exhaust and condensate systems are also covered. Drive trains, reduction gear, stern tubes shafting and propellers are also discussed. STCW ’95. Group 2 course.

MNG 223  Steam Lab ................................. 1.0 (2)
Prerequisite(s): MNG 104, MNG 105, MNG 110, MTH 111
This is a hands-on course intended to reinforce MNG 221 and MNG 222. Students will disassemble, inspect, and reassemble machinery typical of what is found aboard ship. Machinery condition will be noted and recommendations made and machinery records will be updated. STCW ’95. Group 2 course.

MNG 234  Electronic Fundamentals ..................... 4.0 (4)
Prerequisite(s): MNG 104, MTH 111
This course bridges the gap between theoretical physics and practical hands-on technology. Industrial electrical safety, shock hazards, and emergency procedures are stressed. The cadet receives practical hands-on practice with both digital, analog meters and oscilloscopes. Digital and analog circuits are constructed and examined both in the lab and with computer simulations. Practical considerations of circuit construction in the field are discussed in terms of ABS, USCG, and IEEE regulations and requirements. The cadet is also introduced to concepts of logic, with emphasis being placed on the understanding and construction of ladder diagrams and the use of truth tables for troubleshooting electronic circuits. STCW ’95. Group 2 course.
MNG 235 Electric Machines and Controls .......... 4.0 (4)
Prerequisite(s): MNG 234
Corequisite(s): MNG 236
This course covers the theory, application, operation, and maintenance of rotating machines as typically found aboard U.S. Merchant Ships and related industrial applications. Generators (DC and AC) motors (DC, multiple and single phase AC) transformers and related equipment are covered. Special attention is given to magnet relay and electronic logic control circuits. Regulations specific to CFR title 46 and IEEE are reviewed. STCW '95. Group 2 course.

MNG 236 Electric Machines & Controls Lab .......... 2.0 (4)
Prerequisite(s): MNG 235
This course is a companion class to MNG 235. Course material is reinforced with practical hands-on experience with universal electrical lab machinery. The operating characteristics of typical rotating machines are studied. Special attention is given to problems associated with multiple generator AC distribution. Safe and effective troubleshooting techniques are practiced on live 110/208 volt electrical control systems. STCW '95. Group 2 course.

MNG 250 Unloading Systems ............................ 3.0 (4)
Prerequisite(s): MNG 110, MTH 111
This course will introduce the cadet to the shipboard Unloading Systems used aboard Great Lakes Bulk Carriers. The cadet will study the operation and maintenance of this unloading equipment. This instruction is supported by work in the lab. A review of Pollution Regulations will also be covered. STCW '95. Group 2 course.

MNG 315 Engineering Sea Project I ................ 6.0 (6)
Prerequisite(s): Completion of first academic year with a 2.0 or higher in all required courses.
During this course the cadet is on board a Great Lakes commercial vessel. The cadet follows a prescribed course of study of vessel operations with particular emphasis on the engine room and auxiliary equipment, including safety requirements. In addition, the cadet spends a minimum of eight hours a day under the supervision of a licensed officer gaining experience in various engineering duties and responsibilities. STCW '95. Group 2 course.

MNG 316 Engineering Sea Project II ............... 9.0 (9)
Prerequisite(s): Completion of second academic year with a 2.0 or higher in all required courses.
During this course, the cadet is on board a Great Lakes commercial vessel. The cadet follows a prescribed course of study of vessel operations with particular emphasis on the engine room and auxiliary equipment, including safety requirements. In addition, the cadet spends a minimum of eight hours a day under the supervision of a licensed officer gaining experience in the various engineering duties and responsibilities. This course is a continuation of MNG 315 and is designed to enhance the cadet’s professional knowledge and sailing time to meet the licensing requirements of the U.S. Coast Guard, STCW and the criteria established by the Maritime Administration. STCW '95. Group 2 course.

MNG 355 Watchstanding .................................. 2.0 (2)
Prerequisite(s): MNG 210, MNG 220, MNG 235, MNG 312
Engineering simulators are used to strengthen the watchstanding skills of the engineering cadet. The cadet will be required to operate shipboard systems, manage engine room personnel, and become familiar with the paper work required in the operation of a modern engine room. Group 2 course.

MNG 366 Engine Room Business .................... 2.0 (2)
Prerequisite(s): MNG 210, 220, 235, 311, 312
Cadets are introduced to the every day management and administrative activities confronting the Marine Engineer. The cadet will be introduced to management and personnel skills necessary to deal with people problems peculiar to the marine environment. General issues of alcohol, drug abuse, and sexual harassment in the marine environment will be discussed and placed in perspective with USCG & STCW protocols. Other necessary skills such as program planning, flow-charting, recordkeeping, etc., will be introduced and practiced in scenarios. Legal considerations for the ship’s officer such as log books, union contracts, certificates, evaluations, inspections, regulations, etc., will be introduced and discussed. Group 2 course.

MNG 396 License Preparation Engine .............. 2.0 (2)
Prerequisite(s): MNG 210, 220, 235, 311, 312
A complete review of all professional subjects studied in the Maritime Engineering Program. This course is designed to cover the essentials of the Third Assistant Engineer’s examination administered by the U.S. Coast Guard. The final grade for this course is dependent on taking the U.S. Coast Guard license exam. Group 2 course.

MNS Naval Science

MNS 100 Naval Science .................................. 2.0 (2)
This course is required of all Maritime Academy cadets and is an introduction to Naval Science specifically oriented toward Merchant Marine officers. It is intended to familiarize students with the role of the Merchant Marine in national defense and policy and with the various concepts of cooperation between the Navy and the Merchant Marine industry. Group 2 course.

MNS 200 Naval Science II ............................ 2.0 (2)
Prerequisite(s): MNS 100
This course is required of all Maritime Academy cadets who are Midshipmen in the Merchant Marine Reserve/U.S. Naval Reserve program. It familiarizes the student with the naval missions and heritage and assists the Merchant Marine officer in making the transition from civilian to sailor. Group 2 course.
MTH  Mathematics

Students are REQUIRED to have and learn to use a TI-84 graphing calculator for ALL math classes.

MTH 06 Basic Numerical Skills ..... 2.0 (non-credit) (2)
Prerequisite(s): COMPASS placement.
This course is taken along with MTH 08. This course is designed to emphasize the thorough development of arithmetic concepts and basic numerical skill mastery. Hands-on activities applied and real-world applications will be stressed.

MTH 08 Pre-Algebra .................... 4.0 (non-credit) (4)
Prerequisite(s): COMPASS placement.
Small study groups work in write-in texts in guided discovery format, along with short lectures. Significant use and instruction of TI-84 calculator. This course covers all basic operations with fractions and decimal fractions. There is good coverage of special denominator fractions such as percent, ppm, and ppb. Proportions and ratios are used to introduce rational numbers. There is a survey of metric and English measurement systems with thorough treatment of dimensional analysis in each. Conversion factors and proportions are both used for expanding fractions and for dimensional analysis. Other topics integrated throughout the course include: scientific notation and large number nomenclature, prime number theory and prime factorization, integers, basic geometry of angles, area and perimeter of rectangles, triangles and circles, volume and surface area of cubes and rectangular prisms. Metric and English mass units are introduced as are related topics such as density. Variables are used in order to introduce algebraic concepts. An algebraic approach is used for solving proportions and other equations. The function concept is used in each course unit using the graph and table utilities of graphing calculator.

MTH 10 Pre-Beginning .................... 2.0 (non-credit) (2)
Algebra Skills
Corequisite(s): MTH 23
The course is taken along with MTH 23 and is designed to emphasize the thorough development of the arithmetic of fractions and integers along with fraction thinking and problem solving. Other topics that are integrated throughout the course include: rational numbers, the properties of integral exponents, addition, subtraction, and multiplication of polynomials and factoring of polynomials. Solving linear equations, quadratic equations, and proportions are also covered. Function notation is introduced and used throughout the course and basic graphing of linear functions is covered, including slope, x- and y-intercepts. Problem solving is stressed, including unit conversions and mixture problems.

MTH 11 Pre-Intermediate ............... 2.0 (non-credit) (2)
Algebra Skills
Corequisite(s): MTH 111
This course is taken along with MTH 111 and is designed to review fraction thinking and problem solving. Other topics that are integrated throughout the course include: elementary set notation, a description of the Real number system and its major subsets, and an introduction to the Complex number system. Solving linear, quadratic and rational equations and inequalities, as well as radical equations and systems of equations are also covered. The course includes an investigation of graphical, numerical, and symbolic representations and manipulations of various functions including linear, rational and quadratic. Matrices are introduced; properties of integral exponents are reviewed and extended to rational exponents. Pre-Intermediate Algebra also covers simplifying, adding, subtracting and multiplying radicals. Problem solving and the function concept are integrated throughout.

MTH 23 Beginning Algebra ............ 4.0 (non-credit) (4)
Prerequisite(s): 2.0 or better in MTH 08 or placement by COMPASS.
The course covers the arithmetic of integers and rational numbers, the properties of integral exponents, addition, subtraction, and multiplication of polynomials and factoring of polynomials. Solving linear equations, quadratic equations, and proportions is also covered. Function notation is introduced and used throughout the course and basic graphing of linear functions is covered, including slope, x and y-intercepts. Problem solving is stressed, including unit conversions.

MTH 106 Math for Elementary Teachers ............. 4.0 (4)
Prerequisite(s): MTH 111 or COMPASS equivalent or Math ACT score of 24 or greater.
This course places an emphasis on the structure of elementary mathematics. Content includes problem solving and critical thinking using Polya’s four-step process, sets and set operations, relations, whole numbers, integers, rational numbers, irrational numbers, arithmetic algorithms in base ten and in other bases, properties of numbers, least common multiples, greatest common factors, fractions, ratios and proportions, percents, and elementary number theory. The course also includes the use of manipulatives, like Cuisenaire Rods, base pieces and Pattern Blocks, to investigate arithmetic concepts. Calculator labs are incorporated into the course to give students calculator experience. Group 2 course.

MTH 111 Intermediate Algebra ........... 4.0 (4)
Prerequisite(s): 2.0 or better in MTH 23 and college level reading skills or COMPASS equivalent.
Intermediate Algebra covers elementary set notation, a description of the real number system and its major subsets, and an introduction to the Complex number system. Solving linear, quadratic and rational equations and inequalities, and radical equations and systems of equations are also covered. An investigation of graphical, numerical, and symbolic representations and manipulations of various functions including linear, rational and quadratic are included. Matrices are introduced; properties of integral exponents are reviewed and extended to rational exponents. Also covers simplifying, adding, subtracting, and multiplying radicals. Problem solving and the function concept are integrated throughout. Consult an advisor before enrolling. Group 2 course.
MTH 116 Intro. to Computer Science............... 4.0 (4)  
Prerequisite(s): MTH 111 or COMPASS equivalent or Math ACT score of 24 or greater.  
A high level computer language (currently Java) will be used to provide a thorough introduction to computer science, object-oriented programming, problem solving, and algorithm and data structure development. Illustrative applications and programming assignments will be given. Group 1 course.

MTH 121 College Algebra.............................. 4.0 (4)  
Prerequisite(s): MTH 111 or COMPASS placement or Math ACT score of 24 or greater.  
This course continues the development of algebraic skills begun in MTH 111. Topics include: functions, mathematical models, solving equations algebraically and graphically, polynomial, logarithmic, exponential functions, inverse functions, linear and nonlinear systems of equations. Group 1 course.

MTH 122 Trigonometry .............................. 3.0 (3)  
Prerequisite(s): MTH 121 or COMPASS placement.  
This course covers the definition and graphic representation of the trigonometric functions. Triangles, angle measure, equations, identities, and inverse functions are discussed in detail. Law of Sines, Law of Cosines, and equations of the conic sections will also be covered. Group 1 course.

MTH 131 Intro to Probability and Statistics ............. 3.0 (3)  
Prerequisite(s): MTH 111 or COMPASS placement or Math ACT score of 24 or greater.  
Descriptive statistics, experimental design, an introduction to probability concepts and inferential statistics are all included in this course. Descriptive statistics includes graphical representations such as histograms, bar charts, pie charts, boxplots, stemplots, scatterplots and the normal curve. Measures of central tendency such as the mean and median, and measures of variation such as the standard deviation and quartiles are studied. The normal density function and linear regression are included. One and two sample problems involving confidence intervals and significance tests are studied for the sample mean and the sample proportion. Consult an advisor before enrolling. Group 1 course.

MTH 140 College Algebra & Trigonometry ............ 5.0 (5)  
Prerequisite(s): COMPASS placement and a high school trigonometry class. Students receiving credit for MTH 121 and/or MTH 122 will not receive credit for MTH 140.  
This course is designed to provide the student with the necessary maturity and skills to begin the calculus sequence. The topics covered include elementary set theory, equations of the conic sections, polynomial, logarithmic, exponential, trigonometric functions, inverse functions, linear and nonlinear systems of equations. Group 1 course.

MTH 141 Calculus I .................................. 5.0 (5)  
Prerequisite(s): MTH 140 or MTH 122 or COMPASS placement.  
This is the first course in a traditional calculus sequence, emphasizing the development of the mathematical thought process. The topics covered include limits (definitions and limit proofs), continuity, derivatives of algebraic and trigonometric functions, applications of the derivative, the indefinite and definite integral, the fundamental theorem of calculus, and applications of integration. Group 1 course.

MTH 142 Calculus II ................................. 5.0 (5)  
Prerequisite(s): MTH 141  
This course is a continuation of Calculus I. The topics include differentiation and integration involving exponential, logarithmic and inverse trigonometric function. There is an introduction of various integration methods. L'Hospital's Rule, improper integrals, parametric equations, polar coordinates, and infinite sequences and series are also investigated. Group 1 course.

MTH 206 Math for Elem. Teachers II .................. 4.0 (4)  
Prerequisite(s): MTH 106 and MTH 111 or COMPASS equivalent.  
MTH 106  Math for Elem. Teachers I  3.0 (3)  
This course covers topics in algebra, number theory, geometry, and data and probability. Group 1 course.

MTH 241 Calculus III ................................ 4.0 (4)  
Prerequisite(s): MTH 142  
The course covers multivariable calculus including three-dimensional analytical geometry, vector valued functions, partial differentiation, and multiple integration (with applications of each). Also an introduction to linear algebra will be covered. Group 1 course.

MTH 251 Differential Equations ...................... 4.0 (4)  
Prerequisite(s): MTH 241  
Introduces the concepts of differential equations and of linear algebra. Topics include: solving linear and systems of linear differential equations, Laplace transformations and their physical applications. Solutions are found using analytical, numerical, or graphical techniques relating to quantitative modeling and Laplace transforms. Linear algebraic topics include: vector spaces, subspaces, spanning sets, linear dependence and independence, basis and dimensions, eigenvalues, eigenvectors, and linear transformations. Group 1 course.

Visit www.nmc.edu/science-math for more detailed information.
MUS 90  Applied Music-Remedial ……………. 1.0-2.0 (1-2)
Instruction
MUS 90 is remedial instruction for students wanting to take 100 level applied instruction in voice, piano, organ, guitar, or any of the traditional wind, percussion or string instruments, but lack either music reading, technical skills, artistic skills or tone production skills. An audition and interview, or, if no music is prepared, only an interview will take place to determine the competency levels of a student. Goals will be established to address those competencies required for 100-level instruction. This course does not apply toward graduation. MUS 90 level instruction can be repeated until remediation is complete. Students will meet with an assigned faculty member for weekly instruction at a pre-arranged time and place. Materials specific to the students needs will be assigned. The Applied Faculty will recommend to the acting Department chair when the competencies have been met.

MUS 101  Theory of Music…………………………… 3.0 (3)
Prerequisite(s): An understanding of music fundamentals.
Corequisite(s): MUS 103
Theory of Music course work is designed for students who are pursuing music as an academic major or minor. The first year includes the basic materials of music: the structures of tonality, harmonic progression, and the technique of harmonization. Students are required to complete and analyze music using practices listed above. Group 2 course.

MUS 102  Theory of Music……………………………. 3.0 (3)
Prerequisite(s): MUS 101
Corequisite(s): MUS 104
This course in Theory of Music is the second semester of a two-semester/one-year sequence of coursework designed for students who are pursuing music as an academic major or minor. This course includes the basic materials of music: the structures of tonality, harmonic progression, and the technique of harmonization. Students are required to complete and analyze music using practices listed above. Group 2 course.

MUS 103  Sight Singing and Ear Training…………… 1.0 (2)
Prerequisite(s): An understanding of music fundamentals
Corequisite(s): MUS 101, MUS 106 or Applied Piano Instruction.
This course work is designed for students who are pursuing music as an academic major or minor. The content of this course is the building of skills in reading music, and developing aural competency in interval relationships, scales, and triads, through a variety of musical practices, principally the voice. Group 2 course.

MUS 104  Sight Singing and Ear Training…………… 1.0 (2)
Prerequisite(s): MUS 103 or equivalent competency
Corequisite(s): MUS 102
This is the second of a two-semester/one-year sequence of coursework designed for students who are pursuing music as an academic major or minor. The content of this course is a continued building of skills as listed in MUS 103 through a variety of musical practices, principally the voice. Group 2 course.

MUS 106  Class Piano I………………………………… 2.0 (2)
Piano study for the beginning or near-beginning student. Cultivation of technical-musical awareness and keyboard playing ability, individually and in ensemble. Group 2 course.

MUS 107  Class Piano II………………………………… 2.0 (2)
Prerequisite(s): MUS 106 or instructor permission.
This course is the second of a four-semester, two-year sequence of the study of piano. Objectives are the cultivation of technical-musical awareness and keyboard playing ability. Group 2 course.

MUS 110  Music Appreciation Stand. Lit……………. 3.0 (3)
This course is a survey of the history of Western music from Middle Ages to the present. The music of world cultures will be examined as an introduction to the study of composers, compositions, and period compositional conventions of music of our Western Culture. Group 1 course.

MUS 111  Music Appreciation Jazz………………… 3.0 (3)
This course will cover an historical survey of jazz styles from its earliest beginnings and influences through contemporary. Group 1 course.

MUS 112  Class Guitar I……………………………… 2.0 (2)
This course is designed for the student who wishes to acquire basic knowledge and techniques for guitar playing. The instruction introduces the basic information of music notation, as well as mechanical skills for the development of individual playing ability. The format is a structured approach covering hand position, fundamentals of reading music and chord knowledge. Repertoire will include Folk music, popular music and the Blues, and will utilize both strumming and picking techniques. Group 2 course.

MUS 113  Class Guitar II…………………………… 2.0 (2)
Prerequisite(s): MUS 112
This course is a continuation of MUS 112. Emphasis is placed on developing music reading skills for the guitar, along with further development of Folk picking techniques and understanding of the Blues. An introduction to Jazz chords along with fundamentals of music theory will also be presented. Group 2 course.

MUS 114  NMC Grand Traverse Chorale…………… 1.0 (2)
Prerequisite(s): Choral experience or instructor permission.
Performances are presented on campus and in the community. The choir provides its members with the educational experience and personal enrichment made possible through the singing of choral literature. Music to be performed is from all periods from the Early Masters to the 20th Century. Group 2 course.
MUS 115  NMC Grand Traverse Chorale........................................ 1.0 (2)
Prerequisite(s): MUS 114 or instructor permission.
Open to all students with past choral experience or with instructor permission. MUS 115 is a continuation of rehearsal and performance program as begun in MUS 114. Performances are presented on campus and in the community. The choir provides its members with an educational experience and personal enrichment made possible through the singing of quality choral literature. Music to be performed is selected from all periods from the Early Masters to the 20th century. **Group 2 course.**

MUS 116  NMC Chamber Singers........................................ 1.0 (3)
Prerequisite(s): Audition by instructor.
Open by audition to all students. Performances are presented on campus and in the community. Music to be performed ranges from the Renaissance to 20th century contemporary literature. **Group 2 course.**

MUS 117  NMC Chamber Singers........................................ 1.0 (3)
Prerequisite(s): MUS 116 or equivalent or audition by instructor.
A continuation of skills begun in MUS 116. **Group 2 course.**

MUS 118  NMC Concert Band........................................ 1.0 (2)
Prerequisite(s): A high school level competency on a wind or percussion instrument. Passing an initial competency/chair placement performance audition on a wind or percussion instrument.
This course will provide a survey of significant concert and symphonic band repertoire. Students will learn performance techniques on their instrument as are relevant to the concert band medium. Students will also learn the role that their instrument plays within the context of a concert band. Generally, two to four concerts will be performed each semester. **Group 2 course.**

MUS 119  NMC Concert Band........................................ 1.0 (2)
Prerequisite(s): MUS 118 or instructor permission.
This course will provide a survey of significant concert and symphonic band repertoire. Students will continue to learn performance techniques on their instrument as relevant to the concert band medium. Students will continue to learn the role that their instrument plays within the context of a concert band. Generally, two to four concerts will be performed each semester. **Group 2 course.**

MUS 120  NMC Jazz Band............................................... 1.0 (2)
A course for the performer with a focus on big band jazz ensemble techniques and styles. A wide range of jazz styles are covered including swing, be-bop, ballads, rock/fusion and Latin. Some improvisation is briefly explored and always encouraged, although it is not the main focus of this course. Two to four performances may be given each semester and all members are required to attend and participate in all performances. **Group 2 course.**

MUS 121  NMC Jazz Band............................................... 1.0 (2)
Prerequisite(s): MUS 120
A course for the performer with a focus on big band jazz ensemble techniques and styles. A wide range of jazz styles are covered including swing, be-bop, ballads, rock/fusion and Latin. Some improvisation is briefly explored and always encouraged, although it is not the main focus of this course. Two to four performances may be given each semester and all members are required to attend and participate in all performances. **Group 2 course.**

MUS 127  Traverse Symphony Orchestra ....................... 1.0 (2)
The study and performance of orchestral literature, both standard and contemporary. Performance is required for credit. Course is designed to give students basic knowledge of music fundamentals, styles and performance history. The TSO is open by audition in the late summer and early fall of the year, and gives 8-10 public concerts per year. Audition, rehearsal, and performance information is available through the music department. **Group 2 course.**

MUS 128  Traverse Symphony Orchestra ....................... 1.0 (2)
Prerequisite(s): MUS 127
The study and performance of orchestral literature, both standard and contemporary. Performance is required for credit. Course is designed to give students basic knowledge of music fundamentals, styles and performance history. The TSO is open by audition in the late summer and early fall of the year, and gives 8-10 public concerts per year. Audition, rehearsal, and performance information is available through the music department. **Group 2 course.**

MUS 130A Ensemble-Sound Recording Tech.............. 2.0 (2)
Students will learn the correct use of analog and digital recording equipment, the theory of sound and sound waves, the use of recording software, how to create different types of sound files, which is best for a given application, and how to create a sound file from a live recording session. **Group 2 course.**

MUS 130B Ensemble-Sound Recording II........... 2.0 (2)
Prerequisite(s): MUS 130A or instructor permission.
Students will learn the application of dynamic processing to raw audio channels, demonstrating a mastery of editing and mixing. The capstone project from MUS 130A will be utilized. **Group 2 course.**

MUS 131-139 A,B,C Ensembles in ...................... 1.0 (2)
**Applied Music I**
Prerequisite(s): Instructor permission.
This course prepares students for public performance and develops abilities in ensemble techniques. Students study in small ensembles (duets, trios, quartets, quintets, and octets) under faculty direction. Students are to keep 12:30-1:30 on Wednesdays clear from scheduling conflict to be able to perform in Convocation, a performance venue at Milliken Auditorium. Students are expected to perform at least one Convocation each semester. **Group 2 course.**
MUS 140-166  A,B,C Applied Music- ................. 1-2 (1-2)
Private Lesson
Note: 100 and 200 level courses may be taken three times.
Private lessons in guitar, classical guitar, organ, piano, voice, percussion, traditional string, and wind instruments are offered. A pre-arranged lesson time with the assigned instructor is arranged and studies/compositions, as appropriate are prepared for continuing musical development. A jury examination will be given at the conclusion of each semester of 100-level instruction. Students are to keep 12:30-1:30 on Wednesdays clear to participate as audience and soloists in Convocation. Group 2 course.

MUS 206  Class Piano III...................................... 2.0 (2)
Prerequisite(s): MUS 107 or instructor permission.
This is the third of a four-semester, two-year sequence of the study of piano. Objectives are the cultivation of technical-musical awareness and keyboard playing ability. Group 2 course.

MUS 207  Class Piano IV...................................... 2.0 (2)
Prerequisite(s): MUS 206 or instructor permission.
This is the fourth of a four semester, two year sequence of the study of piano. Objectives are the cultivation of technical-musical awareness and keyboard playing ability. A continuation of MUS 206. Group 2 course.

MUS 214  NMC Grand Traverse Chorale............... 1.0 (2)
Prerequisite(s): MUS 115 or instructor permission.
A continuation of study from MUS 115, the Grand Traverse Chorale is a mixed (SATB) choral ensemble that presents concerts on the College campus and off campus when performing choral/orchestral compositions. A minimum of two concerts are given each semester. The GT Chorale provides its members with educational experience and personal enrichment made possible through the singing of quality choral literature. Emphasis is made on tonal and ensemble artistry. Group 2 course.

MUS 215  NMC Grand Traverse Chorale............... 1.0 (2)
Prerequisite(s): MUS 214 or instructor permission.
A continuation of study from MUS 214, the Grand Traverse Chorale is a mixed (SATB) choral ensemble that presents concerts on the College campus and off campus when performing choral/orchestral compositions. A minimum of two concerts are given each semester. The GT Chorale provides its members with an educational experience and personal enrichment made possible through the singing of quality choral literature. Choral literature is selected from the commonly accepted historical periods from Antiquity through the 20th Century. Emphasis is placed on tonal and ensemble artistry. Group 2 course.

MUS 216  NMC Chamber Singers....................... 1.0 (3)
Prerequisite(s): MUS 117 or instructor permission.
A continuation of study from MUS 117, the NMC Chamber Singers is a mixed (SATB) choral ensemble that presents concerts on the College campus and off campus when performing choral/orchestral compositions. Membership is comprised of music majors, college students representing the various disciplines across campus and community members serious about choral performance and continued vocal study. A minimum of two concerts are given each semester. The Chamber Singers provides its members with an educational experience and personal enrichment made possible through singing of quality choral literature selected from the commonly accepted historical periods from Antiquity through the 20th Century. Performance excellence is principal to the purpose of the ensemble. Group 2 course.

MUS 217  NMC Chamber Singers.......................... 1.0 (3)
Prerequisite(s): MUS 216 or instructor permission.
A continuation of study from MUS 216, the NMC Chamber Singers is a mixed (SATB) choral ensemble that presents concerts on the College campus and off campus when performing choral/orchestral compositions. Membership is comprised of music majors, college students representing the various disciplines across campus and community members serious about choral performance and continued vocal study. A minimum of two concerts are given each semester. The Chamber Singers provides its members with an educational experience and personal enrichment made possible through singing of quality choral literature selected from the commonly accepted historical periods from Antiquity through the 20th Century. Performance excellence is principal to the purpose of the ensemble. Group 2 course.

MUS 218  NMC Concert Band............................. 1.0 (2)
Prerequisite(s): MUS 119 or instructor permission.
Open to students who have completed a year of Concert Band. See MUS 118 for course description. Group 2 course.

MUS 219  NMC Concert Band............................. 1.0 (2)
Prerequisite(s): MUS 218 or instructor permission.
Open to students who have completed a year of Concert Band. See MUS 119 for course description. Group 2 course.

MUS 220  NMC Jazz Band................................. 1.0 (2)
Prerequisite(s): MUS 121 or MUS 120 or instructor permission.
A course for the performer with a focus on big band jazz ensemble techniques and styles. A wide range of jazz styles are covered including: swing, be-bop, ballads, rock/fusion and Latin. Some improvisation is briefly explored and always encouraged, although it is not the main focus of this course. Two to four performances may be given each semester and all members are required to attend and participate in all performances. Group 2 course.

MUS 221  NMC Jazz Band................................. 1.0 (2)
Prerequisite(s): MUS 220 or instructor permission.
A course for the performer with a continued focus on big band jazz ensemble techniques and styles. A wide range of jazz styles are covered including swing, be-bop, ballads, rock/fusion and Latin. Some improvisation is briefly explored and always encouraged, although it is not the main focus of this course. Two to four performances may be given each semester and all members are required to attend and participate in all performances. Group 2 course.
MUS 227  Traverse Symphony Orchestra .......... 1.0 (2)
Prerequisite(s): MUS 128
Open to students by audition who have completed one year of orchestra or collegiate equivalent as a transfer student. The study and performance of orchestral literature, both standard and contemporary. Performance is required for credit. Course is designed to give students basic knowledge of music fundamentals, styles and performance history. The TSO is open by audition in the late summer and early fall of the year, and gives 8-10 concerts per year. Audition, rehearsal, and performance information is available through the music department.

Group 2 course.

MUS 228  Traverse Symphony Orchestra .......... 1.0 (2)
Prerequisite(s): MUS 227
Continuation of MUS 227. Group 2 course.

MUS 230A Ensembles-Midi Processing .......... 2.0 (2)
Prerequisite(s): MUS 130B or instructor permission.
This course is designed to develop competencies in the theory and use of “music sequencing” and “virtual Midi instrument” software through their application to music composition created by the student in notation software. Group 2 course.

MUS 230B Ensembles-Recording Practicum .......... 2.0 (2)
Prerequisite(s): MUS 230A or instructor permission.
This course applies all previous audio course work to a client-based need for a music track for application to blogs, websites, film/video, or audio based advertising. Group 2 course.

MUS 231-239 A,B,C Ensembles ............... 1.0 (2) Applied Music II
Prerequisite(s): Instructor permission.
These courses prepare students for public performance and develop abilities in ensemble techniques. Students study in small ensembles (duets, trios, quartets, quintets, and octets) under faculty direction. Students are to keep 12:30-1:30 on Wednesdays clear from scheduling conflicts to be able to perform in Convocation, a performance venue at the Milliken Auditorium. Students are expected to perform in at least one Convocation each semester. Group 2 course.

MUS 240-266 A, B, C Applied Music .......... 1.0-2.0 (1-2) Private Lessons
Prerequisite(s): A minimum of two semesters of 100 level applied instruction or instructor permission.
Private lessons in guitar, classical guitar, organ, piano, voice, percussion, traditional string and wind instruments are offered. A pre-arranged lesson time with the assigned instructor is arranged and studies/compositions, as appropriate are prepared for continuing musical development. A jury examination will be given at the conclusion of the Fall semester of 200-level instruction. Students are to keep 12:30-1:30 on Wednesdays clear to be able to participate as audience and soloists in Convocation. Group 2 course.

OUT 112  Winter Travel and Camping .......... 1.0 (2)
This course introduces the three-season backcountry traveler to safe and enjoyable winter outings. The focus is on winter safety, travel techniques (primarily Nordic skiing), camping, menu planning, clothing and gear selection, navigation, and shelter building.

OUT 125  Backpacking I ............... 1.0 (2)
The course is for novice backpackers. Information discussed and practiced includes basic backpacking skills, selecting of equipment, food planning and preparation, map and compass navigation, backcountry first aid and minimal impact camping.

OUT 126  Backpacking II ............ 1.0 (2)
Prerequisite(s): OUT 125 or three-day backpacking experience.
This course is for backpackers with prior experience. Its purpose is to broaden the student’s knowledge of backpacking techniques with special attention given to lightweight equipment, menu planning, itinerary planning, map and compass navigation, site selection, and other minimal impact considerations.

OUT 130  Caving I .......... 1.0 (2)
An introduction to the geology of cave formation and cave ecology. Additionally, by exploring non-commercial cave systems, students are introduced to the equipment, techniques, and safety systems associated with the sport of caving.

OUT 131  Caving II .......... 1.0 (2)
Prerequisite(s): OUT 130 or instructor permission.
This course focuses on safe and appropriate techniques for exploring caves, with an emphasis on selecting and using equipment, as well as implementing climbing/rappelling safety systems for cave exploration.

OUT 132  Rock Climbing I .......... 1.0 (2)
This course is a beginning rock climbing course to introduce students to climbing techniques, belaying, and safety practices related to class five climbing.

OUT 133  Rock Climbing II .......... 1.0 (2)
Prerequisite(s): OUT 132 or instructor permission.
Students will learn anchor selection, active and passive gear placement, and advanced belaying techniques, with an introduction to lead climbing.

For course availability, refer to www.nmc.edu/schedule or the Schedule of Classes.
OUT 140  Snowshoeing ............................. 1.0  (2)
Students will learn how to dress for winter activities, orienteer, winter camp, adjust for emergency situations and explore a variety of locations off campus. Participants will become educated snowshoe consumers and best of all, HAVE FUN! Snowshoes provided.

OUT 160  Canoeing I ............................. 1.0  (2)
Instruction in various techniques of canoeing are introduced in flat water (lake) and moving water (river). Two one-day trips are planned.

OUT 161  Canoeing II ............................. 1.0  (2)
Prerequisite(s): OUT 160 or instructor permission. 
This course is for canoers with prior experience in river canoeing. Wilderness travel by canoe with an over-night camping trip is planned.

OUT 162  Kayaking .......................... 1.0  (2)
An introduction to the sport of kayaking. This course is designed to teach students the basic skills and adventure of recreational kayaking. Focus will include paddling techniques, safety, and forms of rescue. Care, construction, and selection will be reviewed. Field trips are planned.

PAR  Legal Assistant

PAR 101  Intro to Legal Assisting .............. 3.0  (3)
This is a survey course that explores various facets of legal assisting and identifies areas of specialization within the law. Emphasis will be placed on the ethical obligations of legal assistants and attorneys and on the Michigan Rules of Professional Conduct. Group 2 course.

PAR 102  Legal Research & Writing I .......... 3.0  (3)
Prerequisite(s): ENG 111
Pre- or Corequisite(s): PAR 101
This course instructs students in the fundamentals of effective legal research and writing. Students are taught how to use a law library and analyze the relevant laws. Students will learn about the primary sources of law, including judicial decisions, statutes, and administrative regulations. Students will also learn about secondary resources, such as legal encyclopedias and digests. There will be various legal research assignments and students will be required to prepare a legal memorandum. This is a fall semester offering. Group 2 course.

PAR 103  Legal Research & Writing II .......... 3.0  (3)
Prerequisite(s): PAR 102
This advanced course enhances the skills that students learned in Legal Research and Writing I, with particular emphasis being placed upon the improvement of legal writing skills. There will be various legal research assignments and each student will be required to prepare a brief. This is a spring semester offering. Group 2 course.

PAR 106  Litigation ............................ 2.0  (2)
Pre- or Corequisite(s): PAR 101
This course presents an introduction to the legal system, with an emphasis being placed on civil litigation procedure. It includes a study of pleadings, pre-trial procedures, discovery, court rules, and the law of evidence. This is a fall semester offering. Group 2 course.

PAR 112  Torts .................................. 2.0  (2)
Pre- or Corequisite(s): PAR 101
This course provides a detailed study of the law of torts. Topics include negligence, strict liability, misrepresentation, defamation, and trespass. This is a spring semester offering. Group 2 course.

PAR 201  Probate ............................. 2.0  (2)
Pre- or Corequisite(s): PAR 101
The course familiarizes students with probate procedures and the administration of estates. This course will also cover the preparation and interpretation of wills and trusts. This is a fall semester offering. Group 2 course.

PAR 200  Family Law ......................... 2.0  (2)
Pre- or Corequisite(s): PAR 101
This course covers the basics of family law. Topics will include antenuptial agreements, dissolution of marriage, child custody, and child support. This is a spring semester offering. Group 2 course.

PAR 211  Real Estate Law ..................... 2.0  (2)
Pre- or Corequisite(s): PAR 101
This course covers the basics of real estate law. Topics will include deeds, land contracts, mortgages, easements, types of ownership, title insurance, and real estate closings. This is a fall semester offering. Group 2 course.

PAR 210  Probate ............................. 2.0  (2)
Pre- or Corequisite(s): PAR 101
This course presents an introduction to the legal system, with an emphasis being placed on civil litigation procedure. It includes a study of pleadings, pre-trial procedures, discovery, court rules, and the law of evidence. This is a fall semester offering. Group 2 course.

PAR 221  Law Office Management ............. 2.0  (2)
Pre- or Corequisite(s): PAR 101
This course focuses on the management of a law office as a business. Students will examine forms of business structure, and office equipment and library needs. This course will also cover computer software commonly used in law offices. Various employment issues will also be discussed. This is a spring semester offering. Group 2 course.

PAR 222  Legal Drafting ...................... 2.0  (2)
Pre- or Corequisite(s): PAR 101
This course focuses on the drafting of contracts and litigation documents. Students will learn about the steps in drafting, the architecture of legal documents, the avoidance of ambiguities, the importance of “plain English,” and the general factors affecting readability. This is a fall semester offering. Group 2 course.
PAR 230  Legal Assistant Internship .................. 2.0 (2)
Note: Permission of instructor and a minimum of 2.0 GPA in PAR courses is required. This course is to be taken at the end of the Legal Assistant Program.
This course provides an opportunity for students to receive practical, hands-on experience working for 150 hours in one of the area's law firms or government offices. Progress is monitored and the experiences of the student are discussed.
Samples of work assignments are submitted and the student's performance is evaluated. This is a spring semester offering.
Group 2 course.

PE 101  Swing, Latin & Slow Dancing .................. 1.0 (2)
This course will introduce students to a fun form of exercise and recreation you can do for the rest of your life through swing and social dancing. Many styles of dancing will be covered including swing, jitterbug, tango, cha cha, waltz, slow dancing, two-step, Latin dancing, salsa, lambada, and many swing moves that can be incorporated into any dance situation. Please wear slippery-soled shoes.

PE 102  Hip-Hop Dance ................................. 1.0 (2)
Learn dance combinations used in the Hip-Hop dance style. Develops the strength, flexibility, rhythm, balance, and safe body mechanics to dance confidently in a social atmosphere to popular Hip-Hop music. A great way to exercise and have fun at the same time. Please wear clean, dry gym shoes.

PE 105  Volleyball I ...................................... 1.0 (2)
Introduction to volleyball with emphasis on developing individual ball-handling skills. Team play, basic strategy, and rules of play will also be covered.

PE 106  Volleyball II ...................................... 1.0 (2)
Prerequisite(s): PE 105
A continuation for students who already have good basic skills and understand the game. Emphasis is on team play, offensive and defensive alignments, and advanced volleyball skills.

PE 107  Basketball I ....................................... 1.0 (2)
Introduction to the fundamental skills, rules, offensive and defensive team strategies of basketball. Designed for beginners through advanced levels. Drill practice and team play.

PE 108  Basketball II ...................................... 1.0 (2)
Prerequisite(s): PE 107
A continuation for students who already have good basic skills and understand the game. Emphasis is on advanced offensive and defensive strategies as applied to a practical team play experience.

PE 109  Softball ........................................... 1.0 (2)
Designed for students of all ability levels. Emphasis is on individual skills, team play, and strategy as well as rules of the game. The style is slow pitch.

PE 111  Soccer ............................................. 1.0 (2)
Introduction to fundamental skills, rules, offensive and defensive strategies of soccer. Drill practice, team play, and indoor/outdoor application.

PE 135  Weightlifting I ................................... 1.0 (2)
Prerequisite(s): PE 135
Designed for students interested in building and maintaining muscular strength, size, tone, and trimming. Instruction in use of free weights as related to strength training and a total conditioning program. An individualized instructional approach will be used.

PE 136A  Weightlifting II ................................ 1.0 (2)
Prerequisite(s): PE 135
Designed for students who wish to continue to build body size and muscular strength. Instruction will be given in the use of free weights as related to an advanced strength training and conditioning program.

PE 138  Weightlifting With Machines ................. 1.0 (2)
This on-campus weightlifting course enables the student to expand knowledge and use of weight machines. Course includes cardiovascular and strength training, with opportunity for questions and answers.

PE 141  Aikido ............................................ 1.0 (2)
Aikido is Budo - an art based on the philosophy and fighting techniques of the Japanese samurai. “The way of harmony with the forces of nature,” Aikido is excellent physical training and effective self defense. This course introduces Yoshokai-style Aikido warmup exercises, basic movements, back breakfall, and 8th kyu level techniques. The emphasis is on improving balance and focus, learning to fall safely, and performing basic techniques with a partner, while learning about Aikido history, principles, and terminology in a setting of traditional etiquette and discipline.

PE 142  Intermediate Aikido ......................... 1.0 (2)
Prerequisite(s): PE 141
Refinement of Yoshokai-style Beginning Aikido skills with emphasis on mastering techniques and the introduction of bukiwaza, techniques using wooden sword, staff, knife.

PE 143  Continuing Aikido .............................. 1.0 (2)
Prerequisite(s): PE 142
Training at this level emulates regular Aikido practice in a private dojo (training facility). Focus is on mastery of advanced techniques, weapons, and Aikido philosophy.

PE 144  Tae Kwon Do (Karate) I ...................... 1.0 (2)
Introduction to the proper etiquette and philosophy of the Korean art of Tae Kwon Do (Karate). Training includes basic blocks, punches, kicks, stances, self-defense and the four-directional punch, the first pattern of Tae Kwon Do.
PE 145  Tae Kwon Do (Karate) II .............................. 1.0 (2)
Prerequisite(s): PE 144 or instructor permission.
Refinement of basic skills and techniques of Tae Kwon Do. Training includes introduction of intermediate skills of blocking, kicking, punching, and Chon-ji, the second pattern of Tae Kwon Do.

PE 146 Tae Kwon Do (Karate) III ......................... 1.0 (2)
Prerequisite(s): PE 145 or instructor permission.
Continuing refinement of basic and intermediate skills and techniques. Introduction to advanced foot techniques, semi-free sparring, and the methods of attack and defense against opponents. Training includes the patterns of Dan-Gun, Do-San and Won-Hyo.

PE 147  Tae Kwon Do (Karate) IV .......................... 1.0 (2)
Prerequisite(s): PE 146 or instructor permission.
Introduction to jumping kicks and refinement of basic, intermediate and semi-advanced skills and techniques. Introduction to jumping kicks and the patterns of Yul-Guk, Joong-Gun, Hwa-Rang, and Choong-Moo. Advanced flying kicks and additional patterns are introduced to those prepared to obtain Kick Belt ranks and to instruct lower rank students.

PE 148  Kuntaw I .................................................. 1.0 (2)
Introduction to the history and philosophy of the Filipino martial art form Maharlika Kuntaw. Kuntaw emphasizes flexibility and agility rather than power or strength and is based on the use of flowing circular strike/counter defense. Training includes use of arnis (sticks), basic strikes, blocks, kicks, anyos (forms) and self-defense.

PE 149  Kuntaw II .................................................. 1.0 (2)
Prerequisite(s): PE 148 or instructor permission.
This course provides the student with the continuation of beginning I. The student will learn the application of the six anyos (forms), stick drills, hand techniques, basic blocks, kicks, stalls and traps.

PE 150  Kuntaw III .................................................. 1.0 (2)
Prerequisite(s): PE 149
Continuation of beginning course work with the addition of advanced blocks, parries, kicks, stalls, traps, take downs, stick/weapon drills, and self-defense. Training includes the five H-forms, the six stick anyos (forms) and the applications.

PE 151  Kuntaw IV .................................................. 1.0 (2)
Prerequisite(s): PE 150
Refinement of intermediate skills and techniques with additional advanced blocks, parries, traps, take downs, ground fighting, two-on-one fighting, and stick/weapon drills. Includes applications of advanced skills/techniques and the six saiawans and five combats (forms.)

PE 164 Judo ......................................................... 1.0 (2)
This class will introduce the basics of the sport of Judo as well as Jujutsu based self defense. Judo is recognized as one of the best forms of exercise. Actual combat (randori) is a big part of Judo though safety is not compromised. Please wear loose, comfortable clothing and come to have fun!

PE 169 Continuing Judo ................................. 1.0 (2)
Prerequisite(s): PE 164
A continuation of Judo for intermediate and advanced levels. Students will continue to improve skills and abilities and advance through belt testing.

PHL 101  Introduction to Philosophy ....................... 3.0 (3)
This course is an introduction to some of the major areas, ideas, and thinkers of philosophy. Students will read a number of major philosophers in Western Philosophy, such as Socrates, Plato, Aquinas, Descartes, Berkeley, James, Russell, and Sartre, as well as from texts representing non-traditional or non-Western sources, such as Native American and Asian thought. Students will also be introduced to some of the main problems and concepts in the areas of Epistemology, Metaphysics, Ethics, and Aesthetics, as well as investigate other issues or movements, such as Existentialism or Feminism, in more depth. Group 1 course.

PHL 105  Critical Thinking .................................... 3.0 (3)
This course is about listening and reading and writing more effectively. Students learn ways to assess information and to form sound evaluative judgments about what is seen, heard, and read. Critical questions provide a structure for critical thinking that supports a continuing search for better opinions, decisions, or judgments. Exercises in understanding and composing logically-sound arguments are emphasized as well as knowing what is fair and reasonable in the argument’s structure. Examples are taken from professional situations such as law, medicine, and politics, as well as everyday life. Fallacies in rhetoric, such as name calling and begging the question, are identified and understood. Group 1 course.

PHL 121  Western Religions ................................. 4.0 (4)
A study of the historical development, main religious teachings, leading personalities, ethical values and worship practices of the major religious traditions of the Western world: Judaism, Christianity, and Islam. Group 1 course.

PHL 122  Eastern Religions ................................. 4.0 (4)
A study of the historical development, main religious teachings, leading personalities, ethical values and worship practices of the major religious traditions of India, China, and Japan: Hinduism, Buddhism, Confucianism, Taoism. Group 1 course.
PHL 181 Old Testament.......................... 4.0 (4)
An introduction to the history, literature, and religious ideas of Ancient Israel conducted through a critical examination of the Hebrew Bible and relevant non-canonical materials from the time of the Patriarchs to the Babylonian Exile set in the cultural context in which ancient Israel developed. Group 1 course.

PHL 182 New Testament.......................... 4.0 (4)
An introduction to the history, literature, and religious ideas of first century Christianity conducted through a critical examination of the New Testament and relevant non-canonical materials set in the cultural and historical context in which early Christianity developed. Group 1 course.

PHL 201 Ethics........................................ 3.0 (3)
Ethics is a thoughtful analysis of a variety of value systems found in societies today. It explores the nature and meaning of good and evil and how these concepts relate to concepts of right and wrong. It considers how the good is known and how it is promoted in societies. The course combines primary source readings of philosophers and religious writers with explanatory secondary source material and it encourages student discussion of the issues. Through the use of critical judgement and philosophical thought, the course explores ethical theories from classical to modern times and includes consideration of ethics that are part of Eastern philosophical traditions, as well as streams from Native American, African, African American, Feminist, and other non-traditional frameworks and paradigms. Group 1 course.

PHL 202 Contemporary Ethical Dilemmas........ 3.0 (3)
This course examines the moral and ethical issues confronting modern societies locally and globally. It examines issues regarding the natural environment, the ethical treatment of animals, biomedical ethics; abortion and issues of human reproduction such as stem-cell research and cloning; business ethics; criminal justice and capital punishment; racism, sexism, and other forms of discrimination, welfare and economic distribution. This course relies on the discipline of philosophy for its methods of inquiry. Incorporated throughout the course is the examination of several approaches to ethics as developed Aristotle, Kant, Mill, and contemporary philosophies of gender and race. Approaches of Eastern/Asian and Native American philosophy are also considered for contrast with standard western approaches to ethical and social issues. The course considers various topics and specific cases in order to provide an overall view of how ethical reasoning might be applied to current issues. Group 1 course.

PHL 222 The World of Jesus.................... 4.0 (4)
Using historical, social scientific, and literary critical methods, this course introduces the socio-economic, political, religious and cultural world in which Jesus of Nazareth lived through a study of the surviving religious and secular texts of Second Temple Judaism and the Greco-Roman culture in which it existed. This course covers events and literature from the Babylonian Exile to the Jewish War. Group 1 course.

PHL 205 Physics of the World Around Us....... 4.0 (3)
PHL 205L Physics of the World Around Us Lab .. 0.0 (2)
Prerequisite(s): MTH 23 or COMPASS equivalent. Students scoring below ENG 111 levels on the COMPASS placement test should plan on additional study time.
Corequisite(s): PHL 105 and PHL 105L
Studies of the Laws of Physics and their application to the world around us. Covers and provides laboratory experience in areas of mechanics, heat, electricity, waves, magnetism, and optics. Computers are used for data collection and analysis. This course is offered in multiple formats such as online or traditional. Consult an advisor before enrolling. Group 1 lab course.

PHL 121 General Physics I....................... 4.0 (4)
PHL 121L General Physics I Lab.................. 0.0 (2)
Prerequisite(s): MTH 140 or MTH 122 or COMPASS equivalent.
Corequisite(s): PHL 121 and PHL 121L
This is the first in a two-semester sequential course intended to meet the needs of the prospective pre-medical, pre-dental, technical, maritime, architecture, or any other student who has a keen interest in examining some of the basic laws and applications of physics using college algebra and trigonometry. This course deals with mechanics, sound, thermodynamics, and fluids. The lab portion is designed to illustrate and reinforce the basic concepts of physics while familiarizing the student with laboratory hardware and the experimental nature of physics. Group 1 lab course.

PHL 122 General Physics II...................... 4.0 (4)
PHL 122L General Physics II Lab................ 0.0 (2)
Prerequisite(s): PHL 121
Corequisite(s): PHL 122 and PHL 122L
As a continuation of PHL 121, studies in electricity, magnetism, optics and modern physics are included and reinforced in lecture as well as the laboratory setting. Group 1 lab course.

PHL 221 Probs. & Principles of Physics I........ 4.0 (3)
PHL 221L Probs. & Principles of Physics I Lab .... 0.0 (2)
Prerequisite(s): ENG 111, MTH 141 or COMPASS equivalent.
Corequisite(s): PHL 221, PHL 221L and PHL 221R
This course is the first semester of a two-semester course sequence primarily intended for those students preparing for engineering, science, or math careers. Topics include linear motion, Newton’s Laws, conservation of momentum, conservation of energy, rotational motion, oscillations, fluids, waves, and thermodynamics. The laboratory covers the preceding topics in parallel with the lecture whenever possible. A recitation accompanies the lecture and lab. Group 1 lab course.
PHY 222  Probs. & Principles of Physics II ........... 4.0 (3)
PHY 222L Probs. & Principles of Physics II Lab ... 0.0 (2)
PHY 222R Probs. & Prin. of Physics II Rec .......... 1.0 (2)

Prerequisite(s): ENG 111, PHY 221, PHY 221R
Corequisite(s): PHY 222, PHY 222L and PHY 222R

This course is a continuation of PHY 221. Topics include electricity and magnetism, electric circuits, and optics. The laboratory covers the preceding topics in parallel with the lecture whenever possible. A recitation accompanies the lecture and lab. Group 1 lab course.

Visit www.nmc.edu/schedule for more detailed information.

PLS  Political Science

PLS 101  Intro to American Politics..................... 3.0 (3)
This course is an introduction to the study of politics and political institutions in America. Emphasis is given to the constitutional framework, federalism, political participation, the electoral system, the presidency, Congress, the Supreme Court, and the bureaucracy. Civil rights and civil liberties are a theme throughout. This course includes an examination of the politics of race, and ethnic and cultural diversity in America. Group 1 course.

PLS 132  Comparative Politics .............................. 3.0 (3)
This course provides a comparative analysis of political systems in developed and developing countries. Students learn about different forms of political organization as instituted and practiced in various countries. Students examine different methods of comparing political systems and learn to apply these methods in causal theories of political change. This course combines a focus on the basic structures of political systems with a thought-provoking analysis of the causes that give birth to those systems - thereby giving shape to the world in which we find ourselves today. Issues related to democracy, civil liberties, political rights, human rights, and economic development are analyzed throughout the course. Group 1 course.

PLS 211  International Relations ......................... 3.0 (3)
Students analyze the nature of international relations in the world today. This course offers a broad overview of political and economic issues in the international arena. Course includes an analysis of American foreign policy since World War II. Other topics include such things as conflict in the Middle East, ethnic conflict and nationalism the world over, and the increasing importance of organizations such as the United Nations and the World Trade Organization. Students assess the dynamics of conflict and cooperation on the international scene. Course includes an examination of the basic analytical approaches to the study of international relations. Group 1 course.

PLS 222  Intro to Political Theory ............................. 3.0 (3)
This course examines basic questions of normative political theory as developed by political philosophers of the ancient through contemporary periods. This course focuses on a wide array of political issues. Topics of consideration include: individual rights v. community rights; analysis of the equality of individuals; different conceptions of justice put forth by various philosophers; and questions of what it means to achieve freedom in one's social and political life. Students can expect to read almost exclusively from primary sources. Examples of thinkers often studied in this course include Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Kant, Marx, Mill, Nietzsche, and Berlin. Group 1 course.

PLS 291A Model United Nations I......................... 2.0 (2)
This is an introductory course (first in a sequence of two and a pre-requisite for PLS 291B: Model United Nations II) familiarizing students with the United Nations (UN) system encompassing its history, structure, procedures and policies. The role of the UN, especially in the current international political arena - whether peaceful or conflicting, will particularly be addressed. Group 2 course.

PLS 291B Model United Nations II....................... 2.0 (2)
This is the second course in a two-sequence course regarding the United Nations. The majority of this course will be used to prepare students for their attendance at the National Model United Nations in New York City in March. This will occur through researching the country that the NMC delegation has been assigned to represent; researching the students’ assigned committees; continued position paper writing and simulation. Group 2 course.
### PLU  Plumbing Technology

- **PLU 101 Introduction to Plumbing**...3.0 (4)
  - Recommended competencies: COMPASS placement into MTH 23 and ENG 111/111 or co-enrollment in the recommended developmental Math and English course.
  - This course provides an introduction to plumbing. Through structured classroom and hands-on skill building, the student will learn the tools of the trade, plumbing safety, how to solder and braze copper tubing, piping skills and trade mathematics. **Group 2 course.**

- **PLU 105 Plumbing Components**...3.0 (4)
  - **Prerequisite(s): PLU 101**
  - Through structured classroom and hands-on skill building, the student will learn to work with copper pipe and fittings, cast-iron pipe and fittings, carbon steel pipe and fittings, corrugated stainless steel tubing, fixtures and faucets, drain waste and vent systems and water distribution systems. **Group 2 course.**

- **PLU 121 Commercial Plumbing**...3.0 (4)
  - **Prerequisite(s): PLU 105**
  - Through structured classroom and hands-on skill building, the student will learn to read commercial drawings, hangers, supports, structural penetrations, and fire stopping, installation and testing DWV piping. **Group 2 course.**

- **PLU 125 Plumbing Installation**...3.0 (4)
  - **Prerequisite(s): PLU 121**
  - Through structured classroom and hands-on skill building, the student will learn to work with roof, floor, and drain areas, types of valves, installing and testing water supply piping, installing fixtures, valves, and faucets, basic electricity, installing water heaters, fuel gas systems and servicing plumbing fixtures. **Group 2 course.**

- **PLU 131 Advanced Plumbing Practices**...3.0 (4)
  - **Prerequisite(s): PLU 125**
  - Through structured classroom and hands-on skill building, the student will learn to use applied math, size water supply piping, potable water treatment, backflow preventers and types of venting. **Group 2 course.**

- **PLU 135 Plumbing Systems and Pumps**...3.0 (4)
  - **Prerequisite(s): PLU 131**
  - Through structured classroom and hands-on skill building, the student will learn sizing DWV and storm systems, sewage pumps and sump pumps, corrosive-resistant waste piping and compressed air. **Group 2 course.**

### PSY  Psychology

- **PSY 100 Career Exploration & Planning**...1.0 (1)
  - Planning a career can be challenging because of the unknown. This course is designed to introduce the student to the tools of career and life planning theories and concepts and assist in applying these principles to their own lives. A variety of techniques will be used to accomplish this including activities on self-assessment of skills, values, interests, personality, and preferences; small group discussions; and written assignments. Development of goal-setting and decision-making skills will be included to enable the student to take charge of their career direction with known information. **Group 2 course.**

- **PSY 101 Introduction to Psychology**...3.0 (3)
  - **Prerequisite(s): PSY 101**
  - This course provides a broad, general introduction to psychology, its basic subject matter, and its approaches to gathering and evaluating evidence about the causes and correlates of behavior. It includes: a) awareness of major psychological approaches to the study of the behavior of organisms; b) knowledge of its important contributors; c) knowledge of research findings, and concepts; and d) understanding of its methodology and limitations. **Group 1 course.**

- **PSY 211 Developmental Psychology**...3.0 (3)
  - **Prerequisite(s): PSY 101**
  - This course presents human development from conception to death including the historical and anthropological bases for studying development. The course includes hereditary factors as well as physical, social and emotional, linguistic, intellectual, and personality development. **Group 1 course.**

- **PSY 212 Psychology/Exceptional Child**...3.0 (3)
  - **Prerequisite(s): CD 202 or PSY 101**
  - This course will provide an examination of the atypical child and his or her developmental needs, including the family. Areas covered will include characteristics, identification processes, methods for contributing to the child’s healthy development and educational needs, community resources and referral procedures. The course will include the child with sensory, physical and speech impairments. The gifted child’s development will also be explored. **Group 1 course.**

- **PSY 221 Psychology of Personality**...3.0 (3)
  - **Prerequisite(s): PSY 101**
  - This course provides a presentation of the concepts, perspectives and terminology of major theorists in the field of personality psychology, as students explore the many psychological, physiological, social and cultural factors that affect personality development. Students are encouraged to evaluate personality theories in relation to current research and application. **Group 1 course.**
PSY 223  Intro to Social Psychology .................. 3.0 (3)
Prerequisite(s): PSY 101 or SOC 101
This course is an introduction to social psychology theory and research. It covers the individual in the social context including how we perceive, judge, and are influenced by others. Topics such as conformity, attraction, liking, prejudice, attitudes, aggression, helping behavior, and interpersonal power are covered from a social psychological perspective. Group 1 course.

PSY 225  Human Sexuality .............................. 3.0 (3)
Prerequisite(s): PSY 101
Human Sexuality offers an introduction to all facets of the field, and involves discussions of theory, research, and practical information. The purpose of the course will be to develop a critical awareness of the dominant issues in the field and to refine the student’s sense of sexual responsibility and integrity. This will be accomplished by exploring the biological, social, cultural, psychological, and personal elements of sexuality. Group 1 course.

PSY 231  Psychology of Adjustment .................... 3.0 (3)
Prerequisite(s): PSY 101
First, this course will provide the student with a broad introduction to the psychology of adjustment which investigates the processes involved in the dynamic interactions of the individual with his or her environment. Second, this course is designed to present procedures by which the student can harness the principles of learning and rational self-counseling in order to achieve personal goals. Group 1 course.

PSY 250  Abnormal Psychology ............................ 3.0 (3)
Prerequisite(s): PSY 101
This course is designed to give students a working vocabulary of the basic concepts of psychopathology, to help them critically evaluate theories and therapies in psychopathology, to develop an awareness of their own attitudes toward abnormal behavior, and acquire knowledge of the variety of techniques for overcoming interpersonal problems and living emotionally healthy lives. Group 1 course.

SOC 101  Introduction to Sociology ....................... 3.0 (3)
This course is an introduction to the study of human group behavior through social interaction with special emphasis on culture, the socialization process, social stratification, collective behavior, social institutions, and social change. Group 1 course.

SOC 113  Intro. to Cultural Anthropology .................. 3.0 (3)
The study of the role of society and culture in human adaptation to a variety of environments. A variety of cultures is studied, primarily non-Western, utilizing cross-cultural comparisons. Among other topics considered are field methods, theories of cultural evolution, the family, kinship, economics, religion, political organization and language. Group 1 course.

SOC 201  Modern Social Problems .......................... 3.0 (3)
This course presents an introductory sociological analysis of causes, changes in, and attempts to effectively treat some of the major problems in contemporary American society. These include: hunger, environmental problems, poverty, crime and delinquency, family problems, and homelessness. Community involvement projects are encouraged. Group 1 course.

SOC 211  Marriage & the Family ............................ 3.0 (3)
Prerequisite(s): SOC 101
This course covers topics such as traditional and non-traditional families, love and intimacy, sexuality, marriage, parenting, family problems and aging. The concept of healthy human relationships in a partnership, and how to build and maintain them, is stressed. Group 1 course.

SOC 220  Gender & Society .................................. 3.0 (3)
Prerequisite(s): PSY 101 or SOC 101
This course examines gender as a system of stratification. It approaches issues of gender in society from both a social, structural, and a social psychological perspective. Issues related to gender inequality in selected institutions such as economy, family, media, education, and politics are studied. Group 1 course.

SOC 221  Deviance & Criminal Behavior .................... 3.0 (3)
Prerequisite(s): SOC 101
This course examines the sociology of crime and criminal law; the social psychology of criminal behavior; the sociology of punishment and correction. Social, economic, political and biological factors are considered while exploring classical, contemporary, and critical thought. Prevention and intervention of criminal behavior are emphasized as well as punishment and correction. Group 1 course.
**SOC 291B Intro. to Underwater Archaeology** ........ 3.0 (3)
This course will provide students with an introduction to theory, method, technologies, and practice in underwater archaeology, with a focus on prehistoric and historical sites, worldwide and in the Great Lakes, inland lakes, and streams of the State of Michigan. Course content will draw primarily from anthropology and the applied social or behavioral sciences. A Ph.D. instructor of record and knowledgeable guest lecturers will present the curriculum in the classroom. The course will be offered as an intensive week-long session during the summer semester. **Group 2 course.**

**SWK**

**SWK 121 Introduction to Social Work** ................. 2.0 (2)
Corequisite(s): SWK 170
This course provides the student with an overview of programs and institutions in social work. This would include private and public agencies, public school services, community development agencies and specific organizations working with specialized persons or age groupings. The students will also explore varying types of job opportunities within these services as well as personal dimensions of people who are intending to enter the social work field. **Group 2 course.**

**SWK 170 Service Internship Orientation** ............. 1.0 (1)
Orientation and preparation for introductory internship experiences in social work areas. For example, introduction to use of supervision, supervisory evaluation, self-evaluation and varying agency structures and functions. Opportunities for internships will also be introduced. This course is done in class and seminar format, meeting one hour a week for five sessions, plus one eight hour seminar. **Group 2 course.**

**SWK 211 Social Interviewing Skills** ................. 3.0 (3)
Prerequisite(s): PSY 101 or SOC 101 or SWK 121
Introduction to types, purposes and stages of interviewing. Basic empathy training. Skill development for observation, listening, non-verbal communication rapport building, information giving and information gathering. Beginning training in recording and documentation. Emphases on self-monitoring and working with culturally diverse, oppressed or psychologically maladaptive clients. **Group 2 course.**

**SWK 221 Introduction to Social Welfare** ............ 3.0 (3)
Prerequisite(s): PSY 101 or SOC 101 or SWK 121
This course reviews the historical perspectives of social welfare, how these translate into services and the implications of these on society today. It then moves into modern social work systems and the existing attitudes, philosophies and the implications of economic, political, and cultural conditions. Varying major theories of behavior are also explored as they relate to social work and the clients in need of services. **Group 2 course.**

**SWK 290 Service Learning Internship** ............... 1.0-4.0 (1)
Prerequisite(s): SWK 121, 211, 170 and an overall GPA of a 2.0 or above.
Human service agency placement of 120 clock hours. This placement will provide an opportunity to observe social workers while they work, as well as assisting in general service delivery under very close supervision. These credits may be divided into more than one semester. Each credit must have 40 clock hours completed in one semester. **Group 2 course.**

**THR**

**THR 151 Basic Acting** ............................................ 4.0 (4)
An introduction to acting technique and craftsmanship, this course emphasizes theory and practice in modern realistic theater. **Group 2 course.**

**THR 152 Acting II** ................................................ 4.0 (4)
This course allows students to learn a variety of performance styles. Period style acting is a primary focus, beginning with Greek tragedy and comedy and working up through Shakespearean acting and ending with Restoration comedy. **Group 2 course.**

**THR 211 Play Production** ................................. 4.0 (4)
This course emphasizes theory and practice of dramatic production demonstrated through the public presentation of a play. It explores basic stagecraft. Students may repeat Play Production three additional times under the course numbers 212, 213 and 214. To assure proper credit is received, please verify the 200-level theater course for which you are registering. **Group 2 course.**
VCA Communications/Art

VCA 100 Materials and Techniques .................. 3.0 (4)
Prerequisite(s): ART 121 or instructor permission.
This course introduces students to commercial drawing techniques, with an emphasis on perspective, pen and ink, and color techniques in marker and pencil when illustrating a variety of different products and illustration formats. Creative media experimentation is encouraged. Group 2 course.

VCA 123 Photoshop I .................................. 2.0 (2)
Prerequisite(s): VCA 123 or instructor permission.
In this course you will learn and practice the basics of Adobe Photoshop, a rasterized image manipulation tool used to create and modify images for both print and the web. You will learn basic selection techniques, color and blending modes, type creation and effects, how to use layers, masks and filters, how to create animated gifs and roll overs and more. Digital cameras and scanner skills are also learned. Group 2 course.

VCA 124 Photoshop II ................................ 2.0 (2)
Prerequisite(s): VCA 123 or instructor permission.
In this course you will learn advanced features of Adobe Photoshop, a rasterized image manipulation tool used to create images for both print and interactive environments. You will learn more complex color management, how to restore damaged images, how to manipulate type, automate tasks, prepare files for print and more. Students will apply their composition and layout skills to projects using Adobe Photoshop. Group 2 course.

VCA 125 Typography I .............................. 3.0 (4)
Prerequisite(s): VCA 123, VCA 150
This class serves as an introduction to typographic history, letterforms, mechanics, terminology, and usage. Students will complete projects that lead them to an understanding of the fundamental and technical aspects of this abstract art as it relates to the field of visual communications as well as print and electronic media. Group 2 course.

VCA 126 Typography II ............................. 3.0 (4)
Prerequisite(s): VCA 125
This class serves as continuation to typographic history, trends, display faces and grids with an emphasis on book typography, binding and structuring methods. Students will complete projects that lead them to an understanding of intermediate typography, current typographic trends and comparative analysis of typefaces that relate to the field of Visual Communications as well as print and electronic media. Group 2 course.

VCA 146 Interactive Animation ..................... 3.0 (4)
Prerequisite(s): VCA 123, VCA 150, or instructor permission.
This course will focus on the exploration of interactive navigation, animation and storytelling that are created for and exist on the web. Programming skills, design theory, rendering, file management, organization, animation history and the introduction of Adobe Flash, Soundtrack and Fireworks software will emphasize creative and narrative web language using Action Script 2.0. Group 2 course.

VCA 147 Web Design I ............................... 3.0 (4)
Prerequisite(s): VCA 123 and VCA 150 or instructor permission.
This course will focus on creative website development and design. Site planning, interactive navigation, design theory, file management, organization and the introduction of Macromedia Dreamweaver and Fireworks software will emphasize creative and utilitarian website construction. Group 2 course.

VCA 150 Digital Graphic Design I .................. 4.0 (4)
In this course you will learn and practice the basics of Adobe InDesign, a desktop publishing tool used to create layouts for print. You will learn how to create, format, manipulate and link text, use style sheets, create single and multipage documents, use frames, color management, import and create graphics, use tables and prepare files for production. In this course you will also learn the basics of Adobe Illustrator, a vector based tool used to create images and layouts for both print and interactive environments. You will learn how to create and manipulate basic shapes with the pen and pencil tools, create gradients, work with type, use layers, create shapes, use fill and stroke, use transform tools, use text tools, use the pen tool, print and choose appropriate color tools for correlating applications. Group 2 course.

VCA 160 Digital Graphic Design II .................. 4.0 (4)
Prerequisite(s): VCA 150
Students will learn advanced techniques of Adobe InDesign, a desktop publishing tool used to create layouts for print and Adobe Illustrator, a vector-based tool used to create images and layouts for both print and interactive environments. Transparencies, effects, layers, hyperlinks, .pdf files, and print using appropriate formats will be taught. Also covered: how to create and manipulate complex shapes with the pen and pencil tools, using paintbrush and path tools, mask, blend and mesh, make appropriate use of symbols, apply filters, effects and graphic styles, illustrate 3D objects, tem-place and actions, and prepare Illustrator artwork for the web print. Group 2 course.

VCA 200 Visual Communications II .................. 3.0 (4)
Prerequisite(s): ART 122, ART 132, VCA 100, VCA 123, VCA 125, VCA 150
Corequisite(s): VCA 220
Through this course you will gain insight and an introduction to the theory of graphic design through practice in researching, brainstorming, creative problem solving, composing and production of two and three dimensional graphic designs, logo marks, and three dimensional packaging while embracing traditional and digital techniques and receiving constructive criticism of your work and practice. Group 2 course.

For course availability, refer to www.nmc.edu/schedule or the Schedule of Classes.
VCA 220 Visual Communications III ................. 3.0 (4)  
Prerequisite(s): ART 122, ART 132, VCA 100, VCA 125  
Corequisite(s): VCA 200  
Through this course, students will gain insight and introduction to the theory of advertising design and art direction through practice in researching, brainstorming, creative problem solving, comping and production of print advertising, advertising campaigns, television, and print advertising, while embracing traditional and digital techniques and receiving constructive criticism of work and practice.  
Group 2 course.

VCA 225 Visual Communications Studio ........ 3.0 (4)  
Prerequisite(s): VCA 200, VCA 220, or instructor permission.  
Corequisite(s): VCA 230, VCA 235  
By the end of this course, students will participate in two hands-on “real world” design projects in which you will act as writer, art director, designer, photographer or illustrator. Projects are for various local not-for-profit clients. You will learn all aspects of pre-press work, production and printing via field trips while also learning to work with clients and the self-driven responsibilities of independent work.  
Group 2 course.

VCA 230 Visual Communications V .................. 3.0 (4)  
Prerequisite(s): ART 112, ART 221, VCA 100, VCA 200, VCA 220 or instructor permission.  
Corequisite(s): VCA 225, VCA 235  
In this course students will excel in setting occupational/educational aspirations and offering and receiving constructive criticism of work. Students will design and produce a body of work for their portfolio, tailored to their individual goals, be it in Illustration, Graphic Design, Motion Graphics, or Art Direction. Progressive visual communications theory and practice will also be studied.  
Group 2 course.

VCA 235 Visual Communications Portfolio .......... 3.0 (4)  
Prerequisite(s): ENG 112, VCA 200, VCA 220  
Corequisite(s): VCA 225, VCA 230  
Students explore various methods of preparing professional portfolios, as well as the packaging and marketing of their portfolio works in preparation for further education and/or job interviews related to their career goals in visual communications. Along with the portfolio, each student prepares a resume, digital portfolio and considers other self-promotional pieces to complete the portfolio package. The emphasis of this course is that each student compiles a professional looking and complete portfolio package based on his/her occupational and educational goals.  
Group 2 course.

VCA 246 Interactive Animation II ..................... 3.0 (4)  
Prerequisite(s): VCA 146  
This course will focus on the advanced exploration of interactive navigation, animation and storytelling that is created for and exists on the web. Advanced Design theory, greater interactivity, file architecture, web loading, hosting and uploading for Flash and more exposure to Adobe Flash software focusing and learning Action Script 3.0 will emphasize creative and narrative language, leading into web site building and basic game development. Students should be self-motivated since this advanced section involves independent projects.  
Group 2 course.

VCA 247 Web Design II ............................... 3.0 (4)  
Prerequisite(s): VCA 147  
This course will focus on advanced creative website development and design. Site planning, interactive navigation, design theory, file management, organization, uploading, server connection, hosting, and continuing work in Macromedia Dreamweaver and Fireworks software will emphasize creative and utilitarian website construction. Students should be self-motivated since this advanced section involves independent projects.  
Group 2 course.

VCA 250 Time Based Media I ........................ 3.0 (4)  
Prerequisite(s): VCA 123, VCA 150  
Strongly Recommended: ART 171 or instructor permission.  
This is a multisensory, theory driven exploration of time-based visual communication environments in individual and team projects. The role of typography, image, sound, space, luminosity, nonlinear concepts and narrative are assessed and used to create sequences of film and moving image. Students are exposed to tools, theories, history of the medium, aesthetics and techniques used in time-base with Final Cut Pro 6, Motion 3, LiveType 2, Soundtrack Pro 2, Compressor 3, Color and DVD Studio Pro 4.  
Group 2 course.

VCA 252 Time Based Media II .......................... 3.0 (4)  
Prerequisite(s): VCA 250  
Strongly recommended: ART 171 or instructor permission.  
This is a multisensory, theory driven continuation and exploration of time-based visual communication environments in individual and team projects. The role of typography, image, sound, space, luminosity, nonlinear structure and narrative are assessed and used to create sequences of moving image. Students are exposed to tools, theories, history of the medium, aesthetics and techniques used in time-based at a more advanced level using all the programs of Final Cut Studio 2. Students should be self-motivated since this advanced section involves independent projects.  
Group 2 course.

VCA 290 Visual Communications Internship ........ 3.0 (4)  
Prerequisite(s): VCA 146, VCA 147, VCA 250, Completed VCA AAS with a minimum 3.0 GPA in VCA courses and departmental approval.  
This course is required for the Associate of Applied Science degree in Creative Management in Art Direction. The purpose of the internship is to provide on-the-job experience for the student who wished to pursue a career in visual communications. The internship will be customized to meet the learning needs of the student and the job requirements of the sponsoring firms. Students spend 12 hours per week in this paid or non-paid, supervised on-the-job training experience. In addition to the required 180 hours in a graphic design business site, students participate in bi-weekly reports and critiques with instructor. Students must apply one month prior to the summer semester in which they will complete the internship.
WPT  Welding Process Technology

WPT 100  Combined Welding (GAS) .................. 2.0 (3)
This course provides the student with the opportunity to learn the theory and application of safe oxy-acetylene welding and cutting techniques in the flat and horizontal positions on mild steel. Group 2 course.

WPT 102  Combined Welding (ARC) .................. 2.0 (3)
This course provides the student an opportunity to learn theory and application of safe Shielded Metal Arc Welding (SMAW) techniques in the flat and horizontal positions using “fast freeze” electrodes. Group 2 course.

WPT 110  Oxy-Fuel Process ......................... 3.0 (5)
This course is designed for Welding students pursuing job skills or transferring into a Welding degree program. Topics include oxyacetylene welding in the flat, horizontal and vertical positions; oxyacetylene cutting, and oxyacetylene brazing. Students learn safety and theory as well as develop their proficiency in these operations. Group 2 course.

WPT 120 GTAW (TIG) Welding I .................. 2.0 (3)
Prerequisite(s): WPT 100 or WPT 110
This course provides the student with the opportunity to learn and apply the theory of basic Gas Tungsten Arc Welding (GTAW) welding techniques on ferrous and non-ferrous metals in the flat and horizontal positions. Group 2 course.

WPT 121 GTAW (TIG) Welding II .................. 2.0 (3)
Prerequisite(s): WPT 120
This course provides students the opportunity to learn and apply welding techniques using the Gas Tungsten Arc Welding (GTAW) process on ferrous and non-ferrous metals on advanced joint designs and in the vertical position. Group 2 course.

WPT 130 SMAW (Arc) Welding I .................. 3.0 (5)
This course is designed for students pursuing job skills or transfer into a Welding degree program. Students learn theory and application of safe Shielded Metal Arc Welding (SMAW) in the flat and horizontal positions. They develop skills with “fast freeze” and “low hydrogen” type electrodes. Topics include welding terminology, electrical theory as it relates to SMAW, weld defects and quality, and the American Welding Society SMAW filter material numbering system. Group 2 course.

WPT 131 SMAW (Arc) Welding II .................. 2.0 (3)
Prerequisite(s): WPT 130
This course provides the student with advanced theory and application of Shielded Metal Arc Welding (SMAW) techniques in the flat, horizontal and vertical positions using “fast freeze” and “low hydrogen” electrodes. Topics include weld quality, inspection, power sources, and trouble shooting. Group 2 course.

WPT 140 GMAW (MIG) Welding I ................. 2.0 (3)
This course provides the student an opportunity to learn the theory and application of basic Gas Metal Arc Welding (GMAW) techniques on ferrous metals. Group 2 course.

WPT 141 GMAW (MIG) Welding II ................. 2.0 (3)
Prerequisite(s): WPT 140
This course provides students the opportunity to learn and apply safe welding techniques using the Gas Metal Arc Welding (GMAW) process on ferrous and non-ferrous metals on advanced joint designs and welding positions. Group 2 course.

WPT 142  Flux Cored Arc Welding .................. 2.0 (3)
Prerequisite(s): WPT 140
This course provides students the opportunity to learn and apply safe welding techniques using the Flux Cored Arc Welding (FCAW) process. Group 2 course.

WPT 160  Welding Qualification Prep ................ 2.0 (3)
Prerequisite(s): WPT 121, or WPT 131, or WPT 141
This course provides experienced welders/students the opportunity to take the AWS welder qualification tests in specified processes on specified materials in specified positions. Group 2 course.
Student Rights & Responsibilities – Process

1. General Statement of Student Rights and Responsibilities
   a. The purpose of the Student Rights and Responsibilities statement is to define a student’s basic rights within the college community, state what actions students may expect from the college to protect those rights, and explain the college’s expectations of its student members, including the standards by which student behavior are measured. This statement describes unacceptable student behavior and outlines the procedures by which students are disciplined if they engage in unacceptable conduct.
   b. Students have the right to be treated fairly by the college and to be informed of college policies and/or regulations affecting them. Any student accused of violating college policies and/or regulations is entitled to fair and balanced procedural protection.

2. General Jurisdiction
   Application to Academic Students: A person must be officially admitted and/or currently registered for an academic credit course to be considered a student under this policy.

3. Student Code of Conduct
   a. Jurisdiction
      i. The jurisdiction of the college shall extend to personal behavior and conduct which occurs on Northwestern Michigan College property, or at any official college function or activity whether those activities are social, professional, or academic.
      ii. The Dean for Student Services shall have original jurisdiction over all complaints involving Section 3. b. (Prohibited Behavior). The College Review Board shall have exclusive jurisdiction over all appeals under Section 3.
   b. Prohibited Behavior: The following behavior and conduct is prohibited. This list is not intended to be exhaustive and the college reserves the right to impose discipline for personal behavior and conduct that may not be expressly identified in Section 3. b. if the student knew or should have known that the conduct was inappropriate under the circumstances.
      i. Interference with the teaching and learning process, including the use of profanity toward another student or faculty/staff member.
      ii. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion, and/or other conduct which threatens or endangers the health or safety of any person, including sexual assault against any student, faculty, staff, or guest of the college.
      iii. Discrimination based on age, color, disability/handicap, height, marital status, national origin, political affiliation, race, religion, gender, sexual orientation, veteran's status, or weight.
      iv. Interference by force, threat, harassment, or duress with an individual's personal safety, academic efforts, employment, or participation in college-sponsored activities and/or creating a reasonable apprehension that such interference is about to occur. This includes stalking.
      v. Disruption of college activities and college business, including, but not limited to, classes, convocations, and student services.
      vi. Continued occupation of a college facility after being requested to leave by any person acting as an authorized agent of the college.
      vii. Defacement, damage to, or theft of college property and/or that of another student, faculty, staff, or guest of the college.
      viii. Tampering with fire alarms, safety systems, or the unauthorized setting of fires.
      ix. Dishonesty, including, but not limited to, cheating, furnishing false information to the college, forgery, misuse or alteration of any college document, or misuse of the college computer system. Academic dishonesty is covered in the Academic Code of Behavior as set forth in Section 5.
      x. Making a false report concerning a fire, bomb, or other alleged emergency.
      xi. Use, possession, manufacture, or distribution of drug paraphernalia, controlled substances, and look-alike drugs. The use of alcoholic beverages as prohibited by NMC policies and/or state law.
      xii. Possession, while on campus or at a college-sponsored function, of any weapons, or look-alike weapons, including, but not limited to firearms, explosives, dangerous chemicals, knives, brass knuckles, licensed weapons, or objects or instruments possessed for use as a weapon or for direct or indirect delivery to another person for use as a weapon.
   xiii. Willful disobedience of college officials or authorized agents acting in the performance of their duties.
   xiv. Willful violation of college rules, regulations, procedures, and policies as promulgated in college policy statements.
   xv. Any violation of a local ordinance, or state or federal law.
   xvi. Unauthorized possession, duplication, or use of keys to any college premises, unauthorized entry to or use of college premises, or tampering with any door or door locking mechanism.
   xvii. Bringing animals into the classrooms or buildings, with the exception of Seeing Eye dogs, or dogs trained to assist persons with a disability recognized under state or federal law.
   xviii. To maintain classroom integrity, only those students registered for an NMC class may attend that class, except for authorized guests.
   xix. Conduct which is disorderly, lewd, or indecent; which includes the use of electronic/digital recording and/or imaging devices used to take images and/or recordings of persons without their knowledge and/or consent; breach of the peace; aiding, abetting, or procuring another person to breach the peace on college premises or at functions sponsored by the college, or participated in by the college.
   xx. Theft or other abuse of computer time, as described in the Computer and Network Acceptable Use Policy including, but not limited to:
      (a) Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
      (b) Unauthorized transfer of files.
      (c) Unauthorized use of another individual's identification or password.
      (d) Use of computer facilities to interfere with the work of another student, faculty/staff member, or college official.
      (e) Use of computer facilities to send or publish threatening, obscene, or abusive messages.
      (f) Use of computer facilities to view and/or print obscene or offensive images.
      (g) Use of computer facilities to interfere with normal operations of the college computer system.
   xxi. Abuse of the disciplinary process, including, but not limited to:
      (a) Failure to obey the summons of a disciplinary body or college official.
      (b) Falsification, distortion, or misrepresentation of information before a disciplinary body.
      (c) Disruption or interference with the orderly conduct of a disciplinary proceeding.
      (d) Interruption of a disciplinary proceeding.
      (e) Attempting to discourage an individual's proper participation in, or use of, the disciplinary system.
      (f) Attempting to influence the impartiality of a member of a disciplinary body prior to, and/or during the course of, the disciplinary proceeding.
      (g) Verbal or physical harassment and/or intimidation of a member of a disciplinary body prior to, during, and/or after a disciplinary proceeding.
      (h) Failure to comply with the sanction(s) imposed under the Student Code of Conduct.
      (i) Influencing or attempting to influence another person to commit an abuse of the disciplinary system.
   c. Report of Violations – Initial Inquiry
      i. Any person may report that a student has allegedly violated the Student Code of Conduct to the Dean for Student Services, or his/her designee.
      ii. Upon receiving such a report, the Dean for Student Services or his/her designee may conduct an informal inquiry to determine:
         (a) If there is jurisdiction over the alleged violation;
         (b) Whether the accused is a student, as defined in Section 2;
         (c) Whether the alleged conduct is prohibited; and
         (d) Whether a sanction is probable, if the allegation is proven.
d. **Procedures:** Following an informal inquiry, if the Dean for Student Services or his/her designee determines that the alleged violation, if proven, would result in a written warning, the procedures as set forth in Section 3. d. i. of the Student Code of Conduct shall apply. If the Dean for Student Services or his/her designee determines that the alleged violation, if proven, could result in the imposition of a sanction or sanctions more severe than a warning, the procedures as set forth in Section 3. d. ii. of the Student Code of Conduct will apply.

i. If the Dean for Student Services or his/her designee determines after discussing with the student that a violation has occurred and the sanction for the violation should be a written warning, the following procedures shall be used:

(a) A written warning shall be administered and presented to the student by the Dean for Student Services, or by his/her designee, or any other authorized employee of the College.

(b) Written notice of the conduct constituting the violation and the nature of the warning shall be filed by the Dean for Student Services or his/her designee or any other authorized employee with the Office of Student Services.

(ii) If the Dean for Student Services, or his/her designee, has a reasonable basis to believe a sanction more severe than a warning could be imposed, then the following procedures will be used:

(a) **Complaint.** All proceedings other than the administration of a warning shall commence with the filing of a written complaint with the Dean for Student Services as soon as reasonable following the date of the alleged violation. A complaint may be filed only when there is a good faith belief that there has been a violation of prohibited behavior.

(b) **Form of Complaint.** The complaint shall include (1) facts alleged to constitute a violation; (2) the provision(s) of the Student Code of Conduct alleged to have been violated; and (3) the name of the student alleged to have committed the violation.

(c) **Who May File.** The complaint may be filed by (1) a college administrator or staff person; (2) faculty member; (3) student; (4) resident hall staff; or (5) other individual as designated or confirmed by the Dean for Student Services.

(d) **Service.** The student against whom the complaint is made shall be personally notified and provided a copy of the complaint and the probable sanctions by the Dean for Student Services or his/her designee, as soon after the complaint is filed as possible.

(e) **Response.** A student served with a complaint shall elect one of the following options within three (3) college business days after service of the complaint by completing, signing, and returning the Student Response form to the Dean for Student Services.

(i) The student may admit the alleged violation and be sanctioned accordingly.

(ii) The student may request mediation, if the Dean for Student Services and other affected parties agree to mediation. If mediation fails or is not agreed to by the Dean for Student Services or any of the other parties, the individual shall proceed under options (i) or (iii) of this section.

(iii) The student may deny the alleged violation. If the Student Response Form is not completed and returned within three (3) college business days after service, the Dean for Student Services may treat such action as an admission of the violation and administer a sanction.

(f) **Investigation.** If the student denies the allegations, the Dean for Student Services will, within a reasonable period of time, but not more than fifteen (15) college business days, begin the investigation process. The Dean for Student Services shall take the following action:

(i) Meet with the student and other relevant parties.

(ii) If necessary, assign an impartial investigator to conduct further investigation pursuant to the College’s “Investigation Guidelines.”

(iii) Present the student with all of the evidence upon which a decision will be made and an opportunity for the student to refute the evidence.

(g) **Findings.** Following completion of the Investigation provided under ii. (f) above, the Dean for Student Services shall take the following action:

(i) Evaluate all evidence presented and, either:

- Dismiss the complaint for lack of clear and convincing evidence that a violation of the Student Code of Conduct occurred or that the accused did not commit the act that resulted in a violation, or
- Based on a finding of clear and convincing evidence, determine that a violation of the Student Code of Conduct was committed by the accused and impose an appropriate sanction.

h. **Notice.** As soon as the Dean for Student Services makes a finding, the Dean shall notify the student in writing.

e. **Sanctions:** A sanction is an action taken when the Student Code of Conduct has been violated. One or more of the following sanctions may be applied. If the student expressly waives his/her right to be sanctioned under this section, the college may impose a different sanction than those listed.

i. **Warning.** Notice, orally or in writing, that continuation or repetition of conduct in violation of Section 3. b. may be cause for more severe disciplinary action.

ii. **Censure.** A written reprimand, including the possibility of more severe disciplinary sanctions in the event of a subsequent violation of a college regulation within a stated period of time.

iii. **Letter of Apology.** The student will prepare and send a letter of apology to the victim(s) of the misconduct.

iv. **Probation.** Exclusion from participation in privileges or extra-curricular college activities for a period not to exceed one academic year from date of offense or infraction.

v. **Restitution.** Reimbursement for damages, or misappropriation of property, or personal injury expenses.

vi. **Community Service.** The performance of an appropriate amount of public service that is both beneficial to the community and which will likely assist the individual in understanding the harm caused by his or her conduct.

vii. **Attendance.** Enrollment and completion of a class that helps the person understand the harm caused by his or her conduct. This sanction may be required for alcohol, substance abuse, or psychological assessments.

viii. **Restricted Student Status.** The student will be allowed to go to and from classes only and will not be allowed to participate freely in any other campus activity. Campus security services may be required, if deemed appropriate. This sanction may remain in effect until completion of the disciplinary process.

ix. **Disciplinary Suspension.** Exclusion from classes and other privileges or activities as set forth in the notice for a definite period of time. A disciplinary suspension will be held in abeyance during an appeal.

x. **Emergency Suspension.**

(a) Exclusion from campus and/or classes and/or other privileges or activities for purposes of investigation, and/or relieving the tension of the student body or class due to a serious infraction of campus rules; or removing a threat to the well-being of the students, or removing for the good of the order of the college a student or students whose presence would prevent the continued normal conduct of the academic community.

(b) Emergency Suspension may be imposed immediately by the Dean for Student Services or by his/her designee without the filing of a complaint. Emergency Suspension will continue until reviewed by the Dean for Student Services. If the Emergency Suspension is continued for more than three (3) college business days, the student shall have the right to appeal to the College Review Board.
semester, tuition, and fees paid for that semester may be applied toward future enrollments or refunded.

x. **Expulsion.** Termination of student status. Re-admission may not be sought before the expiration of one academic year from the date of expulsion.

xi. **Permanent Expulsion.** Permanent expulsion is for the most severe cases, with no rights for future re-admission considered.

f. **Appeal:** An appeal of the Dean for Student Services’ finding that a violation occurred and/or the imposed sanction or sanctions may be taken to the College Review Board. (See Section 7). A notice of appeal must be filed with the office of the Dean for Student Services within ten (10) college business days after the student has received notice of the decision of the Dean for Student Services.

4. **Residence Hall Code of Conduct**

a. **Jurisdiction**

i. The Coordinator of Housing and Residence Life and the Dean for Student Services shall have jurisdiction, respectively, in all cases involving code violations under the Residence Hall Code of Conduct as set forth in Section 4. b.

ii. Personal actions on NMC Residence Hall property, adjacent areas, or at official Residence Hall sponsored functions, as proscribed in Section 4. b., are governed by the Residence Hall Code of Conduct.

b. **Prohibitive Behavior:** The following behavior and conduct is prohibited. This list is not intended to be exhaustive and incorporates by reference all prohibited personal behavior included in Section 3. b. of this publication for purposes of a warning. The College reserves the right to impose discipline for personal actions that may not be expressly identified in Section 4. b. if the student knew or should have known that the conduct was not appropriate under the circumstances.

i. The manufacture, use, or sale of alcohol, inhalants, and other drugs are prohibited. Alcohol containers and drug paraphernalia are also prohibited.

ii. Knowingly being present in a residence hall room where a prohibited substance is being used, but not using it or consuming it yourself.

iii. Any violation of a local ordinance, or state or federal law.

iv. Violation of posted quiet hours or making continued noise during other hours when requested by another resident to limit your noisemaking. These other hours are commonly referred to as **courtesy hours.**

v. Burning of items such as incense, candles, embers, natural fuel, oil, kerosene, propane, and charcoal.

vi. Keeping of fireworks, gasoline, and all other combustibles.

vii. Keeping or using any item which displays an open heating element, such as hot plates and hot pots.

viii. Keeping of motorcycles or other fuel-driven engines in your room.

ix. Keeping of natural cut trees, leaves, or greens in your room other than potted plants.

x. Keeping of firearms, weapons, including, but not limited to, hunting knives, swords, brass knuckles, and martial arts weapons.

xi. Keeping of look-alike weapons, including, but not limited to, pellet guns.

xii. Keeping of paintball guns and paintball pellets.

xiii. Allowing a guest to stay in your room or other resident’s rooms for more than three nights per semester.

xiv. Allowing a guest of the opposite sex to stay in your room without the written and verbal permission of your roommate and suite-mate(s), filed a minimum of 24 hours prior to the visit with your resident assistant.

xv. Allowing a guest to enter the living areas of the Residence Hall without signing in at the Front Desk during the hours of 10:00 p.m. and 8:00 a.m.

xvi. Allowing guests in your room who are under the age of 18 years. The only exceptions are those guests who are NMC students or family members.

xvii. Smoking inside any areas of the Residence Halls including individual rooms.

xviii. Instigating offensive odors in any areas of the Residence Halls including individual rooms. Offensive odors may be defined as, but not limited to, clove cigarettes, pipes, potpourri, or use of fragrant sprays.

xix. The throwing of any material (including liquids) from windows.

xx. Entering a room through a window.

xxi. Unauthorized access to, and on the roof of either Residence Hall building, and the glass skylight area of the Student Center in West Hall.

xxii. Keeping your Residence Hall room in an unsafe or condition that hinders the health of yourself and others.

xxiii. Use of nails, tape, putty, glue, or any adhesive material as decorations in your room, which may cause damage.

xxiv. Writing directly on furniture, walls, doors, floors, and windows in your Residence Hall room.

xxv. Failure to remove your garbage to the dumpsters located behind West Hall.

xxvi. Disposing of garbage, including cigarette butts, on the ground.

xxvii. Entering the cafeteria without a shirt or shoes or in a swimsuit.

xxviii. Transferring use of your meal card to another person.

xxix. Decorating your room with alcohol bottles, cans, or boxes.

xxx. For your safety and the safety of others, all sports are banned inside the Residence Hall buildings. This includes bike riding, rollerblading, and any kind of ball play.

xxxi. Not evacuating during a fire alarm.

xxxii. Failure to comply with sanction(s) imposed under the Residence Hall Code of Conduct.

c. **Report of Violations – Initial Inquiry**

i. Any person may report that a student has allegedly violated the Resident Hall Code of Conduct to the Coordinator of Housing and Residence Life.

ii. Upon receiving such a report, the Coordinator of Housing and Residence Life, or his/her designee, may conduct an informal inquiry to determine:

   (a) If there is jurisdiction over the alleged violation;

   (b) Whether the accused is a student, as defined in Section 2.

   (c) Whether the alleged conduct is prohibited; and

   (d) Whether a sanction is probable, if the allegation is proven.

d. **Procedures:** Following an informal inquiry, if the Coordinator of Housing and Residence Life, or his/her designee, determines that the alleged violation, if proven, would result in a written warning, then the procedures as set forth in Section 4. d. i. of the Residence Hall Code of Conduct will apply. If the Coordinator of Student Life or his/her designee determines that the alleged violation, if proven, could result in the imposition of a sanction more severe than a warning, the procedures as set forth in Section 4. d. ii. of the Residence Hall Code of Conduct will apply.

i. Upon completion of an investigation, if the Coordinator of Housing and Residence Life, or his/her designee, determines after discussing with the student that a violation has occurred and the appropriate sanction for the violation should be a written warning with appropriate counseling, the following procedures will be used:

   (a) A written warning shall be administered and presented to the student by a Residence Life Supervisor, or the Coordinator of Housing and Residence Life, or any other authorized employee of the College.

   (b) Written notice of the conduct constituting the violation and the nature of the warning shall be filed by the appropriate staff member with the Office of Residence Life.

   (c) There shall be no appeal from this written warning.

   (d) All written warnings and notices will be securely stored in the office of the Dean for Student Services. This material will be held for a minimum of three years.

ii. If the Coordinator of Housing and Residence Life has a reasonable basis to believe a sanction other than a warning could be imposed for the alleged violation of the Residence Hall Code of Conduct, the following procedures shall be used:

   (a) **Complaint.** A complaint shall be filed with the Coordinator of Student Life as soon as reasonable following the date of the
alleged violation. A complaint may be filed only where there is a good faith belief that there has been a violation of the prohibited conduct.

(b) Form of Complaint. The complaint shall include (1) facts alleged to constitute a violation; (2) the provision(s) of the Residence Hall Code of Conduct believed to have been violated; (3) the name of the student(s) alleged to have committed the violation.

(c) Who May File. The complaint can be filed by (1) a college administrator or staff person; (2) faculty member; (3) student; (4) resident hall staff; or (5) another individual as designated or confirmed by the Coordinator of Housing and Residence Life.

(d) Service. The student against whom the complaint is made shall be personally notified and provided a copy of the complaint, and the probable sanction by the Coordinator of Housing and Residence Life as his/her designee as soon after the complaint is filed as possible.

(e) Response. A student served with a complaint shall elect one of the following options within three (3) college business days after service of the complaint by completing, signing, and returning the Student Response form to the Coordinator of Housing and Residence Life.

(i) The student may admit the alleged violation and be sanctioned accordingly.

(ii) The student may request mediation, if the Coordinator of Housing and Residence Life and other affected parties agree to mediation. If mediation fails or is not acceptable to the Coordinator of Housing and Residence Life or any of the other parties, the individual shall proceed under options (i) or (iii) of this section.

(iii) The student may deny the alleged violation. If the Student Response form is not completed and returned within the seven (7) college business days, the Coordinator of Housing and Residence Life may treat such action as an admission of a violation, and administer a sanction.

(f) Investigation. If the student denies the allegation, the Coordinator of Housing and Residence Life shall, within a reasonable period of time, but not more than fifteen (15) college business days, begin the investigation process. The Coordinator of Housing and Residence Life shall take the following action:

(i) Meet with the student and other appropriate parties.

(ii) If necessary, assign an impartial investigator to conduct further investigations pursuant to the College’s “Investigation Guidelines.”

(iii) Present the student with all of the evidence upon which a decision will be made and provide the student with an opportunity to refute the evidence.

(g) Findings. Following completion of the Investigation provided under (ii)(f) above, the Dean for Student Services shall take the following action:

(i) Evaluate all evidence presented and, either:

(ii) Dismiss the complaint for lack of clear and convincing evidence that a violation of the Residence Hall Code of Conduct occurred or that the accused did not commit the act that resulted in a violation, or

(iii) Based on a finding of clear and convincing evidence, determine that the accused violated the Residence Hall Code of Conduct and impose an appropriate sanction.

e. Sanctions: A sanction is an action taken when the Residence Hall Student Code of Conduct has been violated. Sanctions are meant to assist in creating a community which upholds the educational mission of the Residence Halls. If the student expressly waives his/her right to be sanctioned under this section, the College may impose a different sanction.

i. Warning. Notice, orally, or in writing, that continuation or repetition of student conduct in violation of prohibited conduct as set forth in Section 3. b., and Section, 4. b., may be cause for more severe disciplinary action.

ii. Censure. A written reprimand, including the possibility of more severe disciplinary sanctions in the event of a subsequent violation of a Residence Hall violation within a stated period of time.

iii. Letter of Apology. The student will prepare and send a letter of apology to the victim(s) of the misconduct.

iv. Restitution. Reimbursement for defacement, damage to, or misappropriation of property, or personal injury expenses.

v. Fines. Differing from reimbursement in that the monetary amount required is a pre-set designation and is not tied to cost of defacement or damage:

(a) Smoking violation; $25 fine per offense

(b) Throwing items from room window; $50 fine per object

(c) Unauthorized or overextended guest; $50 fine per night

(d) Garbage or personal belongings placed in unauthorized areas; $25 fine per bag or $15 fine per item

(e) Non-evacuation during fire alarm; $100 fine per offense

(f) Tampering with fire safety equipment; $500 fine per offense

(g) Unauthorized access on the roof; $50 fine per offense

(h) Failure to comply with health and safety violation correction; $25 fine per day

vi. Educational Design. The individual enrolls in and completes a class or completes a study or paper that helps the person understand the harm caused by his or her conduct. Required for alcohol, substance abuse, and may be required in psychological assessments.

vii. Community Service. The individual completes work projects assigned by the Coordinator of Housing and Residence Life. The work will be directly related to the prohibited action the student engaged.

viii. Disciplinary Housing Suspension. Removal from the Residence Hall living areas and possibly public areas, such as cafeteria. The individual may be responsible for all remaining housing and meal charges. The individual forfeits his/her deposit. This sanction is in full effect during the appeals process if it is invoked. Re-admission may not be sought before the expiration of one academic year from the date of suspension.

ix. Permanent Housing Eviction. Removal from the Residence Hall living areas and public areas. The individual may be responsible for all remaining housing and meal charges. The individual forfeits his/her deposit. This sanction is in full effect during the appeals process if it is invoked. No rights for future re-admission considered.

x. Emergency Suspension.

a. From housing privileges or activities for purposes of investigation and/or relieving the tension of the student body or class due to a serious infraction of housing or campus rules; or removing a threat to the well-being of the students, or removing for the good of the order of the college, a student or students whose presence would prevent the continued normal conduct of the academic or residential community.

b. Emergency Suspension may be imposed immediately by the Coordinator of Housing and Residence Life or by his/her designee without the filing of a complaint. Emergency Housing Suspension will continue until reviewed by the Coordinator of Housing and Residence Life. If the Emergency Suspension is continued for more than three (3) college business days, the student shall have the right to appeal to the Dean for Student Services within three (3) college business days following the emergency suspension. A student may not appeal the decision of the Dean for Student Services. The decision of the Dean for Student Services is final.

f. Appeal

i. An appeal of the Coordinator of Housing and Residence Life decision may be taken to the Dean for Student Services. All appeals must be filed, in writing, within ten (10) college business days after the student has received notice of the decision. All appeals must be based on the following reasons and pursuant to the following procedures:

(a) New evidence that is available that was not available during the investigation.

(b) The evidence upon which the decision was made was insufficient or failed to meet the burden of proof.

(c) The sanction was too severe for the offense.
ii. The Dean for Student Services will decide the individual’s appeal after a careful review of the evidence. The Dean’s findings shall be in writing and submitted to the student within twenty (20) college business days after the appeal was filed. The Dean for Student Services may:
(a) Uphold the original decision.
(b) Reverse the original decision and dismiss all sanctions because the evidence did not meet the standard of proof.
(c) Replace the original sanction with one that is less severe.

iii. A student may not appeal the decision of the Dean for Student Services. The decision of the Dean for Student Services is final.

5. Academic Code of Behavior

a. Cheating or Plagiarism: Cheating or plagiarism on written or oral examinations, quizzes, papers, or other academic work is prohibited. Cheating is defined as falsifying data on a report, exam, summary, or paper; the giving or receiving of aid in an examination situation; and/or the use of unauthorized materials as an aid during an examination. Plagiarism consists of offering as one’s own work; the words, ideas, or arguments of another person, without appropriate attribution by quotation, reference, or footnote. Plagiarism occurs both when the words of another are reproduced without acknowledgment, and when the ideas or arguments of another are paraphrased in such a way as to lead the reader to believe that they originated with the writer.

b. Procedures and Sanctions

i. If the faculty member has substantial evidence that a student has cheated or plagiarized academic work in violation of Section 5. a., the faculty member, after a good faith effort to contact the student, may impose the following sanctions:
   (a) Warning. Written notice that continuation or repetition of wrongful conduct may result in further disciplinary action.
   (b) Censure. A written reprimand for breach of the Academic Code of Behavior, including the possibility of more severe disciplinary sanctions if there is further violation of any part of the code.
   (c) Course-level Sanctions. Repeat relevant course requirements or lower grade on relevant course requirements by deducting the value of the examination paper or other evaluation instruments in which the violation occurred in part or in its entirety in the determination of the final grade for the course. Sanctions may also include but not be limited to failure for the assignment or exam where the dishonesty occurred and /or failure for the course.

ii. The act of academic dishonesty also will be reported to the Dean for Student Services who may do one or more of the following:
   (a) Conduct conferences with the student, the faculty member, and the Academic Discipline Chair to try and resolve the matter.
   (b) If the Dean for Student Services determines that the act of academic dishonesty is egregious, then the Dean for Student Services may impose an appropriate sanction pursuant to Section 5. b. iii.

iii. If the Dean for Student Services finds a violation of Section 5. a. of the Academic Code of Behavior, based on substantial evidence, he/she may impose one of the following sanctions:
   (a) Suspension from the College, which constitutes ineligibility to continue at the College for a specified period of time not to exceed one calendar year.
   (b) Dismissal from the College, which constitutes ineligibility to continue in the college, normally with no opportunity for readmission.

c. Appeal: If the Dean for Student Services finds that a student has violated the Academic Code of Behavior, the student may appeal the decision to the Academic Review Board pursuant to Section 8. Notice of appeal must be submitted to the office of the Dean for Student Services, in writing, within ten (10) college business days after receiving notice of the decision.

d. Unfair Grading

i. Unfair grading practices by faculty members are prohibited. Unfair grading practices are defined as the assignment of a particular grade to a student because of the student’s age, color, disability/handicap, height, marital status, national origin, political affiliation, race, religion, gender, sexual orientation, veteran status, or weight; and/or the failure to apply equal standards of academic evaluation to all students in a course; and/or the assignment of a grade on the bases of standards other than those announced in the syllabus or by the instructor. It is recognized that in college-level instruction, some reasonable non-quantifiable judgments must be made in determining grades.

ii. Students who wish to protest a faculty grading decision must do so in writing within twenty (20) college business days after assignment of the grade to the faculty member involved, with a copy delivered to the Dean for Student Services.

iii. The student complaint of unfair grading will be addressed through a series of informal conference(s) until the complaint is resolved. The order of the conferences is as follows: (1) the student and the faculty member; (2) the student, the faculty member, and the Department Head or Academic Chair; (3) the student, the faculty member, and the Dean for Student Services. The conferences shall be held expeditiously.

iv. If the conferences fail to resolve the dispute, the Dean for Student Services shall uphold the grade unless there is compelling evidence that warrants overturning the faculty member's decision. If a decision is made to overturn a grade, the Dean for Student Services shall be mindful of the following:
   (a) Under no circumstances shall the Dean review the quality of an instructor’s teaching methods, the course content, the appropriateness of the standards established for the course, or the right of the instructor to establish standards for the course.
   (b) The due process system does not deny that the right and responsibility to assign grades rests with the faculty member. The responsibility to apply disciplinary rules related to the classroom and programs of instruction rests with the faculty member and, as appropriate, with administrators charged with program responsibility.

v. Either the faculty member or the student may appeal the decision of the Dean for Student Services to the Academic Review Board pursuant to Section 8. Notice of appeal must be submitted to the office of the Dean for Student Services in writing within ten (10) college business days after receiving notice of the decision.

6. Miscellaneous Codes

a. Professional Standards for Occupational Programs: Any conflict between the Professional Standards for Occupational Programs and the Student Rights and Responsibilities will be resolved in favor of the Professional Standards.

i. Cadet Discipline, Great Lakes Maritime Academy. These rules and regulation are described in the GLMA Cadet Rules and Regulations.

ii. Health Occupational Students. These rules and regulations are described in the Student Policies for each Health Occupation program.

iii. Law Enforcement Students. These rules and regulations are described in the NMC Law Enforcement Program Requirements.

iv. Career Pilot Students. These rules and regulations are described in the NMC Student Pilot Training Program Requirements.

b. Apartment Rules and Regulations: The rules and regulations that apply to living in an NMC apartment can be found in the Northwestern Michigan College Apartment Living Handbook.

c. Motor Vehicle Rules and Sanctions

i. Violations of the Uniform Traffic Code of Traverse City are within the jurisdiction of the City of Traverse City. Laws, rules, and regulations affecting the operation and use of vehicles on College property are found in the Uniform Traffic Code of Traverse City and in the College Rules and Regulations.
ii. Violations of the motor vehicle rules and regulations not covered under the Uniform Traffic Code of Traverse City are subject to College disciplinary action by the Coordinator of Security, or his/her designee.

d. Off-Campus Misconduct
i. The College may take action regarding off-campus misconduct that does not occur at any official college function when that conduct constitutes a flagrant disregard for any person’s health, safety, and/or property, and there is probable cause to believe that it is a violation of law.

ii. The Dean for Student Services will provide written notice to the student of any disciplinary action and the evidence upon which the college relied to impose the discipline. The student shall have ten (10) college business days to refute the evidence and request a rehearing in front of the Dean for Student Services.

7. College Review Board
a. Jurisdiction: Appellant jurisdiction over a student’s appeal from a disciplinary decision made by the Dean for Student Services under Section 3. (Student Code of Conduct) shall be vested in the College Review Board.

b. Parameters
i. The College Review Board is not a court of law. Its procedures are informal and its reviews shall not be perceived as an adversary process. The College Review Board shall have the right to make appropriate judgments about procedural questions as they arise. These judgments shall be made in light of the need for a fair, expeditious, and orderly review.

ii. In its deliberations, the College Review Board shall not consider the appropriateness of College rules and regulations or the right of faculty and administrators to enforce College rules and regulations. The right to define and establish appropriate standards, rules, and regulations, which govern various college functions and activities shall be reserved to the administrators and faculty members charged with the implementation and supervision of those functions and activities.

c. Membership: The College Review Board shall be composed of the Faculty Council Chair, a staff person appointed by the Vice President for Educational Services, and the President of the Student Government Association. If any of the College Review Board members is involved in Board proceedings or has a conflict of interest, or cannot be present for the hearing, the appropriate body shall provide a substitute. The Faculty Council Chair, or the Chair’s substitute, shall serve as Chair and shall call the meetings.

d. Procedures
i. The aggrieved student, within ten (10) college business days, must file a notice of appeal with the Dean for Student Services. The Dean for Student Services will notify the Chair of the College Review Board that a notice of appeal has been filed and that the Chair shall set a date for a hearing within twenty (20) college business days of the filing of the notice unless all parties agree to an extension.

ii. Not less than ten (10) college business days prior to the hearing, the student and the College Review Board shall be provided with a copy of (1) the complaint; (2) the investigation file; and (3) the Dean’s decision, including the sanction.

iii. The student shall be allowed to review and supplement the file with his/her statement, any witness statements, or any other relevant evidence, within five (5) college business days before the hearing.

iv. The College Review Board’s proceedings shall be closed to the public to maintain confidentiality. The Board may request the presence of the accused student or any other person to clarify evidence on the record.

e. College Review Board Decisions
i. Decisions of the College Review Board shall be based upon the record of all material required to be furnished to the Board as set forth in Section 7. d. ii-iv.

ii. The College Review Board shall decide cases by a majority vote. After following the procedures described in this section, the Board may:

(a) Accept the decision of the Dean for Student Services and support the penalty imposed.

(b) Reverse the decision of the Dean for Student Services and dismiss the case because the evidence did not meet the standard of proof or there was a flagrant abuse of the process.

(c) Accept the decision of the Dean for Student Services, but reduce the sanction because it is too severe.

iii. The student shall be provided with written explanation of the reasons for any decisions rendered against him/her.

8. Academic Review Board
a. Jurisdiction: Appellant jurisdiction over a decision made by the Dean for Student Services pursuant to Section 5. shall be vested in the Academic Review Board.

b. Parameters: The Academic Review Board is not a court of law. The purpose of the Board shall be the discovery of the truth and the rendering of a just and fair decision. The Chair shall have the right to make appropriate judgments about procedural questions as they arise. These judgments shall be made in light of the need for fair, expeditious, and orderly reviews or hearings.

c. Membership: The Academic Review Board shall be composed of the Academic Chair of the area within which the dispute arises; one member chosen from within the area which the dispute arises selected by the Vice President for Educational Services; two faculty members (not from the area in question) selected by the Vice President for Educational Services; and one student chosen by the Student Government Association. If the Academic Chair is the instructor involved in the complaint, the Vice President for Educational Services shall appoint an alternate for the Academic Chair.

d. Procedures:

i. The aggrieved party, within ten (10) college business days, must file a notice of appeal stating the reasons for an appeal and any evidence supporting his/her position with the Dean for Student Services. The Dean for Student Services will notify the Academic Chair of the decision within which the dispute arose and he/she will serve as the Chair of the Academic Review Board and shall set a date for a meeting of the Board within twenty (20) college business days of the filing of the notice.

ii. Not less than ten (10) college business days prior to the hearing, the Board shall receive (1) the complaint, (2) any material used by the Dean for Student Services upon which his/her decision was based, and (3) the notice of appeal along with any evidence supplied by the aggrieved party.

iii. The decision of the Academic Review Board shall be based upon the record of all material required to be furnished to the Board as set forth in Section 8. d. The decision will be by majority vote based on substantial evidence.

e. Academic Review Board Decision

i. This Academic Review Board may uphold the findings of the Dean for Student Services.

ii. The Academic Review Board may reverse the decision of the Dean for Student Services and dismiss the original complaint.

iii. The Academic Review Board may find a violation, but reduce the sanctions and impose a less severe sanction as listed in Section 5.

f. Notice

i. A written explanation shall be given to the aggrieved party of the reasons for any decisions rendered and/or any sanctions that have changed.

ii. The records of the proceedings are regarded as confidential. They are to be kept for a minimum of three years in the office of the Dean for Student Services and are available only to those approved by the Dean for Student Services and in accordance with applicable policies and laws.
9. Student Complaints
   a. Complaints: Students with complaints regarding College operations not otherwise covered in the prior sections should report their concerns to the Dean for Student Services Office. The following procedures shall apply.

   b. Procedures
      i. The Dean for Student Services will receive a student's verbal or written complaint. The Dean for Student Services will consider the merit of the complaint and will take any action considered appropriate or necessary. At this level, the student has the right to remain anonymous.
      ii. If the student's verbal or written complaint is not resolved to the student's satisfaction and the student wishes to continue to pursue the complaint, the student must submit a request in writing to the Dean for Student Services requesting further resolution. The written request must include the specific nature of the complaint, reasons for filing the complaint, and specific remedy requested. At this level, the student may no longer remain anonymous. The Dean for Student Services will seek a resolution by using the following means:
         Contact the appropriate college employee who is responsible for the College operation complained about and arrange a meeting between the parties involved to discuss a possible resolution. The written complaint will be forwarded to all appropriate parties involved in the conflict prior to the meeting. Should resolution not be reached, the Dean for Student Services will review the complaint and all supporting material and render a decision regarding the complaint.

   c. Limitations
      i. Student complaints shall not be the basis for any discipline against a supervisor, staff member, or faculty member so long as there is no evidence of unfair treatment of the student or discriminatory practice against the student.
      ii. A student may not appeal the decision of the Dean for Student Services. All decisions of the Dean for Student Services shall be in writing with rationale and are final. No further appeal will be considered.

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Right to Know

In 1990, Congress passed into law the Student Right-to-Know and Campus Security Act. The legislation is designed to provide better consumer information to students and their families by requiring institutions of higher education to compile and report completion or graduation rates, job placement statistics, crime statistics, as well as general information about the college. Job placement statistics, crime statistics, and general information about the college is available in the schedule of classes and the student newspaper, or may be obtained in the Admissions Office, Tanis Building, (231) 995-1058. For completion or graduation rates contact the NMC Registrar at (231) 995-1058. All Board of Trustee and Student Government meetings are open to students.

Non-Discrimination Policy

NMC does not discriminate in admission, campus activities, education, employment, housing, public accommodation, or public service on the basis of age, color, disability, handicap, height, marital status, national origin, political affiliation, race, religion, gender, sexual orientation, veteran's status, or weight. No act of retaliation shall occur to any person making a charge, filing a complaint, testifying or participating in any discrimination investigation or proceeding.

Harassment Policy

Harassment of students and employees at NMC is unacceptable and will not be tolerated. Sexual harassment means unwelcome sexual advances and/or requests for sexual favors, and/or other verbal or physical conduct or communication of a sexual nature that creates an intimidating, hostile, or offensive environment for the student.

Upon receipt of any report or complaint of alleged harassment, NMC will promptly investigate. NMC will take reasonable measures to treat complaints discreetly and respect the personal privacy rights of the person making the complaint and any accused party. Upon conclusion of the investigation, appropriate action will be taken. For additional information, students may contact the Dean for Student Services in the Admissions Office, Tanis Building, (231) 995-1039. Employees may contact Human Resources, Tanis Building, (231) 995-1025. Go to www.nmc.edu/policies to view these and other NMC policies in PDF format.
**Campus Security & Safety Policy**

The safety of students, faculty, staff and visitors is of vital concern to Northwestern Michigan College. Everyone in the campus community is involved in creating a safe environment and is encouraged to report all safety concerns by calling campus security, (231) 883-9099. Emergency outdoor phones are identified by a blue light; all incidents will be documented and investigated. NMC has a staff of campus security personnel who work closely with the Traverse City Police Department. On a regular basis, information and presentations are made available to students and employees on issues of importance to campus safety. The campus safety report is published with the class schedule each semester and is in compliance with the Student Right-to-Know and Campus Security Act. A daily crime log is available at www.nmc.edu/security. Click on crime log.

**Campus Safety Report**

Mission: to establish a system of communication and response to provide for the safety of students and employees.

A. Report Procedures: To report criminal actions, emergencies, or suspicious situations, call:

<table>
<thead>
<tr>
<th>Emergencies</th>
<th>Campus Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>911</td>
<td>(231) 883-9099</td>
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</tbody>
</table>

Emergency outdoor phones are identified by a blue light and can be used to make on-campus calls. To make an emergency call, press the red button, state your location and the situation. Police personnel will respond.

B. Access to Campus Facilities: All campus buildings are open from 7 a.m. to 10 p.m., Monday through Friday, and at other times on weekends depending on need. Residence halls are open from 7 a.m. to 12 midnight every day. Residents have keys and guests are required to register with the residence hall staff after midnight. All guests must be escorted by the resident they are visiting.

C. Authority of Institutional Security Personnel: The NMC Campus Security personnel have the authority to confront the individuals related to an incident, require identification, and when necessary, contact the Traverse City Police Department. Officers keep a daily record of activities and all incidents are promptly reported to the Campus Liaison Officer.

D. Information Programs: On a regular basis students and employees receive information on campus security and crime prevention and are invited to attend presentations on such subjects as sexual assault and rape; fire prevention; crime prevention; bomb threats; and alcohol and drug abuse prevention.

E. Occurrence Statistics: The NMC Campus Security and Safety Department has compiled these statistics for incidents on NMC’s four campuses from January 1, 2008 to December 31, 2008. Go to www.nmc.edu/security to view statistics for the past three years.

### Offenses On Campus

<table>
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<tr>
<th></th>
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<th>R</th>
<th>P</th>
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<tbody>
<tr>
<td>Aggravated Assault</td>
<td>2</td>
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<tr>
<td>Arson</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Burglary</td>
<td>13</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Drug Law Violations/Disciplinary</td>
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<td>5</td>
<td>0</td>
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<tr>
<td>Drug Law Violations/Arrests</td>
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<tr>
<td>Hate Crime (vandalism)</td>
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<td>0</td>
</tr>
<tr>
<td>Illegal Weapons Violations</td>
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<tr>
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<td>0</td>
</tr>
<tr>
<td>Liquor Law Violations/Arrests</td>
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<tr>
<td>Motor Vehicle Theft</td>
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<td>0</td>
</tr>
<tr>
<td>Murder</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>Negligent Manslaughter</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Robbery</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sex Offenses (including forcible rape)</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

The Michigan State Police make available the list of registered sex offenders at www.michigan.gov/msp select “Michigan Sex Offender Registry.”

Drug-Free Learning Environment Policy
It is the intent of Northwestern Michigan College to provide a drug-free workplace and learning environment for students, faculty and staff. Furthermore, NMC intends to comply with the provisions of the Drug-Free Schools and Communities Act of 1989. All students, employees, and visitors are expected to observe all federal, state and local laws and college regulations governing the use and possession of alcohol and illicit drugs. All students, employees and visitors are specifically forbidden to use or possess alcoholic beverages, or to be under the influence of any controlled substance while on college property (except as provided by policy for use of alcohol on campus) or violate conditions of Controlled Substance Act.

Smoke-Free Environment Policy
In the interest of providing a safe and clean environment for students, employees and visitors, NMC has prohibited smoking in all campus facilities and vehicles unless areas are specifically designated through college procedures.

Student Sexual Assault Policy
I. Legal and Behavioral Definition of Sexual Assault
Sexual assault is any unwanted sexual contact resulting from force, threat, or coercion, or when the victim is mentally incapacitated or physically helpless. State of Michigan statutes will be the guide in defining sexual assault and are available in the office of the Coordinator of Campus Security.

II. Reporting Sexual Assault
The following campus offices may be contacted to report a sexual assault:
Dean for Student Services ......................... (231) 995-1039
Housing Office .................................. (231) 995-1408
Counseling Center ............................... (231) 995-1040
Student Health Services ....................... (231) 995-1256
Local law enforcement .................................. 911
Campus Security ............................... (231) 883-9099

The option of reporting to a supervisor in any discipline or department is also available.

Family Educational Rights & Privacy Act
The Family Educational Rights and Privacy Act (FERPA) helps protect the privacy of student records. The Act provides for the right to inspect and review educational records, the right to seek to amend those records and to limit disclosure of information from the records. Institutions may disclose information on a student without violating FERPA through what is known as “directory information.” Directory information includes the student’s name, address, telephone number, e-mail address, date and place of birth, major field of study, participation in officially recognized activities, enrollment status, dates of attendance, degrees and awards received. Questions about student records may be directed to the Registrar. Go to www.nmc.edu/records for more information.

Privacy Statement
In order to improve the instruction offered at Northwestern Michigan College and to meet the requirements of the Carl D. Perkins Vocational and Technical Education Act, Section 113 and the Workforce Investment Act of 1998, Section 122, we will be using your Social Security Number in order to compile summary reports. Section 113 of the Carl D. Perkins and Technical Education Act, 20 USC 2323, and section 122 of the Workforce Investment Act of 1998, 29 USC 2842, requires Northwestern Michigan College and the State of Michigan to assess the effectiveness of vocational and technical education programs aimed at training, placement, and retention of students in employment. Although these laws require that performance reports be compiled based on wage record information, neither law requires students to give their social security numbers (SSN) to the college.

Northwestern Michigan College reports currently enrolled student status to the National Student Clearinghouse each semester. This information is provided to assist students to defer repayment of student loans during the time a student is enrolled. Information is also provided to verify degrees earned and may be used by potential employers who contact the National Student Clearinghouse. Students may access the Clearinghouse website through NMC’s secure website to obtain verification of their student status to be used for insurance purposes.
NMC Student Government Association Constitution

PREAMBLE
The purpose of the Student Government Association of Northwestern Michigan College is to create a student based government that encourages initiative, cooperation, and responsibility among students. The Student Government Association will promote common interests and general welfare of the student body to maintain and perpetuate high ideals at Northwestern Michigan College. The Student Government Association will serve as a liaison between the student body and the administration of the college. In order to do this the Student Government Association of Northwestern Michigan College will adopt and establish this constitution.

For the purposes of the constitution the Student Government Association will define the student body as ANYONE taking a course at Northwestern Michigan College.

ARTICLE I: MEMBERSHIP QUALIFICATIONS
Section 1: On or before the third Friday of the fall semester the Student Government Association must have their first meeting. This constitution will be given to each student at the first meeting and to anyone who requests a copy.

Section 2: Membership of the Student Government Association shall be open to any person, regardless of race, age, gender, sexual orientation or ability who turns in the required petition or has been chosen to represent an educational department. There will only be 15 voting members on the Student Government Association board.

Section 3: Members must be Northwestern Michigan College student with a cumulative GPA of 2.5 and can gain membership by being appointed by an academic department relevant to their area of study or have petitions completed with the required amount of signatures: 50 for full time students (12+ credits), 60 for part time students (6-11 credits), and 70 signatures for other students (1-5 credits).

Section 4: Members appointed by an academic department must have the required letter of recommendation by the fourth Friday of the fall semester. All petitions for membership must be completed and handed to the faculty advisor by the fifth Friday of the fall semester.

Section 5: Petitions are available at the Student Activities Office and signatures must be obtained from the student body only.

ARTICLE II: OFFICER ELECTIONS
Section 1: The electoral commission will administer ballots and make sure the elections are legitimate and fair.
   a. The electoral commission will be comprised of two members not running for office and the faculty advisor.

Section 2: Elections must be held no later than the fifth Friday of the semester. At this time the Student Government Association will elect a president, vice president, secretary, treasurer, and webmaster.

Section 3: Should there be a tie in the elections the chairperson will recount the ballots and if there is still a tie the top two candidates will present a two minute speech explaining why they would be the better officer with a second round of balloting to follow these speeches.

ARTICLE III: RECALLS AND VACANCIES
Section 1: 200 of the Northwestern Michigan College student body can petition to recall a Student Government Association member. If such petition is presented to the Student Government Association the member must vacate his or her seat. If the recalled member wants to remain in the Student Government Association they must collect 250 signatures from the student body to return to the Student Government Association as a member. If the recalled member held an office position his or her position will have been terminated upon the recall. The recalled member cannot be reelected to any officer position. Department appointed members cannot be reappointed by any department.

Section 2: If a department appointed member vacates his or her position then that department can choose to appoint another student. If the department doesn’t appoint another student within three weeks then the position will be an open chair that can be filled by any student fulfilling the membership requirements.

Section 3: If an open chair member vacates their position it can be filled by any student who fulfills the membership requirements.

Section 4: If an officer vacates their position, a current non-officer will be appointed by the remaining officers to temporarily fill the position. Three meetings later an election must be held to officially fill the officer position.

Section 5: If the president vacates his or her position the vice president will fill that position. The vice president position will be filled as per Section 4 above.

Section 6: In the event of the resignation of the entire Student Government Association, or failure of the general election to provide qualified candidates for the Student Government Association, the Vice President for Educational Services shall appoint an interim council of five members until the next general election.

ARTICLE IV: OFFICERS AND THEIR DUTIES
Section 1: All members shall have equal standing in the Student Government Association.

Section 2: The term of office for the members shall be one college academic year. Members may be re-elected or re-appointed in the next term and any subsequent terms.

Section 3: No wages will be allotted to Student Government Association members at any time.

Section 4: If an officer is unable to follow through with his or her duties outlined below then he or she will be subject for a motion for removal from office by the Student Government Association, at which time he or she will appeal to the board.
and there will be a vote. If the officer is removed from his or her officer position he or she will be a general member of the Student Government Association and unable to run for any officer position for the rest of the term.

Section 5: The Student Government Association will have a President, Vice President, Secretary, Webmaster, and Treasurer whose duties are outlined as such:

a. The president will mediate and run the meetings each week and follow Roberts Rules of Order, and speak at the graduation ceremony for both fall and spring semester.

b. It is the vice presidents duty to meet with the Dean of Students and/or the President of the college once a month to present the months minutes and discuss the Student Government Association business. It is also the vice president’s duty to address any issues regarding attendance, tardiness, and leaving early with members of the Student Government Association, and to fulfill the presidents’ duties in the absence of the president.

c. The secretary shall keep minutes of all the Student Government Association’s meetings and make them available to all members at each meeting and to anyone upon request. The secretary shall also keep records of these minutes for future reference. It is also the secretary’s duty to make note of attendance and report on attendance issues as needed.

d. The Treasurer shall keep records current at all times and be the chair person of the Finance Committee whose responsibility is to present reports at every third meeting and prepare and publish an annual financial statement to present at the last meeting of the spring semester. The Treasurer will also maintain 10% of the original budget in the Student Government Association account to carry over for the following academic year.

e. The webmaster will update the Student Government Association website with the weekly minutes and current events. The webmaster will meet with the Executive Director of Learning Resources and Technologies monthly to discuss the website.

Section 6: At the time of officer elections, the Student Government Association must establish the Activities Committee and a Student Group Outreach Committee. The purpose of these committees is to bring a variety of diverse activities to Northwestern Michigan College in order to increase student involvement.

a. The Activities Committee will meet each week to assign duties and create events that are informative, fun, and culturally diverse for the student body. This committee will report back to the board at least two meetings per month.

b. The Student Group Outreach Committee will conduct monthly meetings consisting of the elected chairperson and at least one member of all student groups on campus to discuss events and support each other in their endeavors and assist with funding. This committee will report back to the board at least once per month.

**ARTICLE V: MEETINGS AND ATTENDANCE**

Section 1: Meetings will once a week for ninety minutes.

Section 2: In order to have a meeting where official the Student Government Association business is conducted, a majority of the Student Government Association members must be present and a majority of those present shall be necessary to carry a motion in the Student Government Association.

a. The Student Government Association will define a majority as half the members plus one.

Section 3: Attendance is mandatory. Every member is allowed two excused absences and one unexcused absence per semester. After three absences, a member is subject to a motion for removal by the Student Government Association. At this time the member can appeal to the board, after which there will be a vote. If the Student Government Association votes to remove the member the termination is final for the rest of the term.

Section 4: Excessive tardiness and leaving early is unacceptable.

**ARTICLE VI: AMENDMENTS**

Section 1: To amend the constitution of the Student Government Association Robert’s Rules of order shall be followed.
Board of Trustees

K. Ross Childs  
Chair

Robert T. Brick  
Vice-Chair

William D. Myers  
Secretary

Douglas S. Bishop  
Treasurer

Cheryl Gore Follette

Walter J. Hooper

Susan K. Sheldon

CHAIR EMERITUS  
James J. Beckett ........................................ 1962-1996  
Chair............................................................ 1980-1994

TRUSTEE EMERITUS  
Shirley S. Okerstrom .................................. 1978-2000  
Chair............................................................ 1994-1997

PRESIDENT EMERITUS  
Preston N. Tanis ........................................... 1951-1972  
Timothy G. Quinn ....................................... 1989-1996  
Ilse Burke .................................................... 1996-2001

VICE PRESIDENT EMERITUS  
Lornie Kerr..................................................... 1970-1989

Faculty & Staff

Office of the President

Timothy J. Nelson  
President  
M.S., Michigan Technological University  
B.S., Grand Valley State University

Karen E. Sabin  
Executive Assistant to the President  
B.S., Central Michigan University

Stephen N. Siciliano  
Vice President for Educational Services  
Ph.D., College of William and Mary  
M.A., University of Connecticut  
B.A., Adelphi University  
A.A., Nassau Community College

Marguerite C. Cotto  
Vice President for Lifelong and Professional Learning  
M.S., Michigan State University  
Advanced Study, Institute for Advanced Studies of Puerto Rico and the Caribbean  
B.S., B.A., University of Puerto Rico, Mayaguez Campus

Kathleen E. Guy  
Vice President for Institutional Advancement and Executive Director of NMC Foundation  
Ph.D., M.S., Michigan State University  
B.A., Alma College  
Certified Fund Raising Executive (CFRE)

Cathy P. Jones  
Vice President of Finance and Administration  
M.B.A., Georgia College  
B.B.A., West Georgia College  
A.B.A., Gogebic Community College

Executive Staff

Eugene A. Jenneman  
Executive Director of NMC Dennos Museum Center  
B.S., University of Wisconsin

Craig A. Mulder  
Executive Director of Learning Resources and Technologies  
M.I.L.S., University of Michigan  
B.S., Central Michigan University

John G. Tanner  
Superintendent of the Great Lakes Maritime Academy  
Licensed Merchant Maritime Officer  
First Class Great Lakes Pilot's License
Administrative and Professional Staff

Albers, Judith A.
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A.A., Northwestern Michigan College

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B.S.E.E., Purdue University

Bailey, Edward P.
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B.S., Michigan State University

Barton-Dempsey, Anne C.
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B.S.N., Ferris State University
A.A.S., Muskegon Community College

Bensley, James S.
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M.I.S., Eastern Michigan University
B.S., Western Michigan University

Berck, John H.
Director of Enrollment Management
Great Lakes Maritime Academy
B.A., Wabash College
Licensed Merchant Marine Officer
Certified Personnel Consultant (CPC)

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M.S.W., Michigan State University

Boike, Lisa A.
Computer Programmer/Analyst
B.A., Alma College

Bolander, Diana J.
Curator of Education and Interpretation
M.A., University of Oregon
B.A., Michigan State University

Carmickle, Laura J.
Computer Programmer/Analyst
B.B.A., Eastern Michigan University

Clem, Sonia O.
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A.A., Northwestern Michigan College

Cook, Aaron C.
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A.A.S., Northwestern Michigan College
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Certified Flight Instrument Instructor (CFII)
Multiengine Instructor (MEI)

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B.S., Ferris State University
A.A.S., Northwestern Michigan College

Crawford, Jack David
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B.S., Ferris State University

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B.A., Michigan State University

Dalquist, David J.
Coordinator - WEB
M.L.S., University of Michigan
B.S., A.A.S., Michigan Technological University

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B.A., Central Michigan University

DeCamillis, Susan L.
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M.L.S., Eastern Michigan University
B.S., Ferris State University
A.C., Alpena Community College

Doyal, Julia A.
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Evans, Carol A.
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B.S., Ohio State University

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B.A., Hope College

Ferguson, Karen R.
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M.B.A., University of Michigan
B.A., Alma College

Fraizer, Heather J.
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Ph.D., M.A., University of Colorado
B.A., Albion College

Gallup, Gary J.
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A.A., A.A.S., Northwestern Michigan College

Gasnik, Janet B.
Specialist - Records
B.S., Western Michigan University
A.A., Northwestern Michigan College

Gatshall, Susan D.
Event Scheduler
A.A.S., Northwestern Michigan College

Haselton, Dean C.
Beverage Manager/Great Lakes Campus Purchasing Coordinator

Hazelwood, Constanza C.
Water Studies Institute Education and Outreach Coordinator
Ph.D., M.A., Michigan State University
B.S., Universidad de Los Andes

Heaton, Paul C.
Director of Public Relations
M.S., Ithaca College
B.A., Indiana University

Herzberg, Scott A.
Academic Advisor - Upward Bound
B.S., Northern Michigan University

Hiller, Darby L.
Director of Research and Effectiveness
Ph.D., University of Wisconsin Milwaukee
M.S., Troy State University
B.S., University of Colorado Boulder

Hines, Eric C.
Station Manager - WNMC
A.B., Lafayette College

Hodek, Lori L.
Human Resources Specialist
B.B.A., Davenport University
A.A.S., Northwestern Michigan College
Professional in Human Resources (PHR),
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Jabour, Frank E.
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Licensed Family Nurse Practitioner

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Kahler, Karen L.
Director of Learning Services
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Ph.D., Wayne State University
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Student Services Specialist
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Director of Great Lakes Culinary Institute
M.S., Rochester Institute of Technology
B.A., State University of New York College
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Ph.D., Michigan State University  
M.A., Central Michigan University  
B.S., Ball State University

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B.A., Spring Arbor University

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Monroe, Anne M.  
Dean for Student Services  
Ph.D., Michigan State University  
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Program Coordinator - Automotive Master Certification, National Institute for Automotive Service Excellence  
Master Auto Mechanic, State of Michigan

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Coordinator/Instructor - Construction Technology  
B.S., A.A.S., Ferris State University

Murphey, Jennifer M.  
Admissions Specialist - Great Lakes Maritime Academy  
B.S.B.A., Central Michigan University

Nowka, Elizabeth A.  
Learning Coordinator - Upward Bound  
B.S., Grand Valley State University

Oliver, Janet W.  
Director of Educational Media Technologies  
M.A., Western Michigan University  
B.S., A.A.S., Ferris State University

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M.A., Michigan State University  
B.S., Ferris State University  
A.A.S., Northwestern Michigan College

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B.S., Central Michigan University  
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M.A., B.A., Ball State University

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B.A., Kalamazoo College

Rollin, Lisa K.  
Grant Coordinator - Research Services  
B.S., Ferris State University  
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Multiengine Instructor (MEI)

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Sign Language Interpreter/Support Services Advisor  
M.A., Eastern Michigan University  
B.S.W., Madonna University  
A.A., Lansing Community College

Shikoski, Donald J.  
Director of Information Technology Services  
B.S., Michigan State University  
A.A.S., Kalamazoo Valley Community College

Sobolewski, David T.  
Chief Engineer - Motor, Great Lakes Maritime Academy  
Licensed Merchant Marine Officer  
Chief Engineer, Motor Vessels of Not More Than 5000 Horsepower  
A.S., Northwestern Michigan College

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Director of Research Services  
Ph.D., M.A., Central Michigan University  
B.A., University of California, Santa Cruz  
A.A., Northwestern Michigan College

Stevens, Elizabeth L.  
Admissions Specialist  
A.S.A., A.G.S., Northwestern Michigan College

Streeter, Neil A.  
Instructional Systems Specialist

Studenka, Christopher M.  
Director of Development and Major/Planned Gifts  
B.S., Central Michigan University  
A.A., Lansing Community College

Sullivan, Cheryl A.  
Controller  
B.S., Central Michigan University  
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Swaney, Ann E.  
Librarian  
M.L.S., Western Michigan University  
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M.B.A., Lake Superior State University  
B.S., Ferris State University  
A.A.S., Northwestern Michigan College  
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M.S.E., B.S.E., University of Michigan

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B.S., Western Michigan University  
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B.A., Albion College  
A.O.S., Culinary Institute of America

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B.A., University of California, Los Angeles

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Health Occupations Instructor  
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A.S., Northwestern Michigan College  
Certified Dental Assistant (CDA)

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Advanced Study, University of Toronto  
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B.S., Ferris State University  
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Master Certification, National Institute for Automotive Service Excellence

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Southwest Missouri State University  
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Ed.M., State University of New York, Buffalo  
B.S., Michigan Technological University, Houghton

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B.S., Ithaca College  
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M.A., Fort Hays State University  
B.A., California Polytechnic State University  
A.A., Cuesta Community College

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B.S.N., Saginaw Valley State University  
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B.S., Northern Michigan University

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M.S., Western Illinois University  
A.A.S., B.S., Ferris State University  
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Health Occupations Instructor  
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B.S.N., University of Michigan  
A.D.N., Northwestern Michigan College  
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Great Lakes Maritime Academy Instructor  
Licensed Merchant Marine Officer  
First Class Great Lakes Pilot’s License  
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Social Sciences Instructor  
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B.S., Ball State University  
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Norris, Mary E.  
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B.S., Western Michigan University  
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Advanced Study  
University of Michigan  
University of Wyoming  
University of Cambridge, England  
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Culinary Proficiency, Schoolcraft College  
Chef de Cuisine, American Culinary Federation  
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B.S., Colorado State University  
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B.S., Texas A&M  
Pierce, Mary S.  
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M.A., B.A., Eastern Michigan University  
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MCSA, CCNA, CCAI, A+, Net+, i-Net+, Server+  
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M.A., Pepperdine University  
B.A., State University of New York at Oswego  
A.A.S., Onondaga Community College  
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Humanities Instructor  
M.A., Midwestern State University  
B.A., University of Science and Arts of Oklahoma  
B.S., University of Southern Colorado  
Schaefer-Hills, Caroline L.  
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Post Masters Certificate, Family Nurse Practitioner (FNP), Grand Valley State University  
M.S.N., Northern Michigan University  
B.S.N., A.D.N., Gwynedd - Mercy College  
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GLMA Instructor  
Third Assistant Engineer Any Horsepower - Steam/Diesel  
A.A.S., Northwestern Michigan College  
A.A., Columbia College  
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M.S., B.S., Michigan State University  
Shinnners, Jacqueline C.  
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B.S., State University of New York College at Buffalo  
Sievert, Terry L.  
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B.S., Ferris State College  
A.A.S., West Shore Community College  
Skarupinski, Michael T.  
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Smith, Marjory M.  
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M.A., University of Edinburgh  
Snyder, Frank S.  
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Ph.D., M.A., B.S., University of Pittsburgh  
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M.A., B.A., Michigan State University  
Licensed Professional Counselor (LPC), State of Michigan  
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Great Lakes Maritime Academy Instructor  
Masters License Great Lakes  
Masters License Ocean  
STCW95  
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A.S., Northwestern Michigan College
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M.F.A., Indiana University  
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Multiengine Instructor (MEI)

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M.B.A., Lake Superior State University  
M.S.N., Wayne State University  
B.S., B.S.N., Michigan State University

Walter, Linda A.  
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M.S.N., Grand Valley State University  
B.S.N., A.D.N., Ferris State University  
L.P.N., Mercy School of Practical Nursing

Wooters, Rebecca L.  
Health Occupations Instructor  
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Certified Dental Assistant (CDA)  
Registered Dental Assistant (RDA)

Zachman, John R.  
Social Sciences Instructor  
Ph.D., M.A., Duke University  
B.A., Michigan State University

Zlojutro, Jane M.  
Business Instructor  
M.S.T., Grand Valley State University  
B.B.A., Western Michigan University  
Certified Public Accountant (CPA)

Emeritus Faculty
The following faculty members have retired with twenty or more years of service.

Glen Anderson  1959-85  
Norman Averill  1966-96  
Stephen Ballance  1975-00  
Pauline Baver  1951-75  
Elaine Beardslee  1963-94  
Walter Beardslee  1951-85  
Joan Berg  1977-00  
Lyle Bradford  1968-88  
Robert Burtleman  1970-06  
Larry Buys  1970-01  
Elizabeth Carden  1970-00  
Larry Carps  1971-01  
Richard Cookman  1970-00  
Helen Core  1952-74  
Sharon Dean  1965-92  
Joseph Dionne  1971-06  
Kathleen Donnelly  1961-85  
David Donovan  1971-01  
Sallie Donovan  1975-06  
William Faulk  1965-01  
Adam Gahn  1963-01  
Ernest Gaunt  1952-77  
Richard Gertz  1968-88  
Richard Goerz  1970-00  
Michele Grooters  1977-01  
Jill Hinds  1979-04  
Dianne Keelan  1974-01  
Francis Kullman  1968-96  
John Leishman  1968-94  
Loretta Lockman  1964-84  
William Long  1965-88  
David Loveland  1973-94  
Keith MacPhee  1962-96  
Kenneth Marek  1968-01  
Kenneth Masck  1975-02  
Michael McIntosh  1970-04  
Richard Minor  1972-00  
Hettie Molvang  1974-94  
Henry Morgenstein  1971-00  
Arlo Moss  1962-88  
Peter Nelson  1964-88  
Harry Oliver  1958-89  
Jack Ozegovic  1968-89  
Richard Pascoe  1966-88  
Anne Patrick  1984-07  
Joseph Rogers  1955-84  
Kenneth Rose  1968-00  
Walter Ross  1972-97  
Robert Rudd  1963-98  
William Scharf  1964-91  
Maureen Schneider  1985-06  
William Shaw  1964-94  
Allison Shumsky  1957-95  
William Skinner  1961-88  
James Spenceley  1957-80  
Frederick Tank  1966-07  
Roberta Tchahen  1975-01  
Roy Tendal  1964-94  
David Terrell  1969-07  
Jacqueline Tompkins  1955-84  
David Vermetten  1962-96  
Paul Welch  1964-87  
Lila Wilkinson  1951-74  
Jerry Williams  1970-05

Adjunct Faculty
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A.N., Kalamazoo Valley Community College

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Assendelft, Barbara A.  
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J.D., Detroit College of Law  
B.A., Michigan State University  
A.A., Macomb Community College

Auch, Thomas F.  
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B.S., Colorado State University

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Automotive Instructor  
Master Certification - National Institute for Automotive Service Excellence

Balance, Stephen J.  
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B.A., Michigan State University

Bartlett Jr., Fred P.  
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M.B.A., Averett College  
B.S., Lawrence Institute of Technology

Beach, Rebecca C.  
Communications Instructor  
Ed.D., University of Missouri

Beardslee, Lois  
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M.A., University of New Mexico  
B.A., Oberlin College

Beihl, Lisa J.  
Health Occupations Instructor

BeVier, Meredith S.  
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Blackford, Lisa A.  
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A.A., A.S., Northwestern Michigan College

Borkovich, Michael L.  
Social Sciences Instructor

Bowers, Kathy A.  
Social Sciences Instructor

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Cannon, Nelson J.
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Crockett, James E.
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B.A., Michigan State University
DeCamillis, Susan L.
Business Instructor
M.S., Eastern Michigan University
B.S., Ferris State University
Drzewiecki, Stephen M.
Social Sciences Instructor
Eisenstein, Dorothy B.
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Everest, Brandon R.
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Communications Instructor
Fate, Levi D.
Physical Education Instructor
Fewins, Nicole S.
Business Instructor
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B.S., Michigan Technological University
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Humanities Instructor
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A.A.S., Northwestern Michigan College
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Great Lakes Maritime Academy Instructor
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Harmon, BJ
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Haselton, Dean C.
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Hathaway, Matthew
Humanities Instructor
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Holley, Mark W.
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Howe, Gary L.
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Glossary

Academic Advising
The process by which faculty members assist students with course selection and career advisement; students are assigned to an advisor based on their program of study.

Accreditation
Recognition that the college or a college program has met standards or requirements set up by a governing organization.

Admission
Acceptance of an applicant for enrollment in the college.

Applied Science Degree
An associate degree available at NMC which prepares students to enter the workforce immediately after graduation; students who may intend to transfer should see a counselor regarding course selection.

Articulation
The process of identifying the transferability of NMC courses to other colleges and universities.

Associate Degree
A degree issued to a student who has completed a prescribed curriculum/program of courses totaling a minimum of 64 semester credits, generally completed in two years of full-time attendance; students earn an Associate of Science and Arts, Associate in Applied Science, or Associate Degree in Nursing, depending on their area of emphasis.

Audit
To enroll in an academic course on a non-credit basis; all regular fees and charges apply.

Baccalaureate Degree
A degree issued to a student who has completed a prescribed curriculum/program of courses totaling 120 to 128 semester credits, generally completed in four years of full-time attendance.

Catalog
A college's official publication outlining general information, requirements for admission, degree and certificate programs, special services, course descriptions, and faculty/staff listing.

Certificate Program
A prescribed curriculum/program of courses in a job specialty area which includes some basic education, designed as preparation for immediate employment; requirements for certificates vary considerably and details are found in this catalog.

Class Schedule
A publication listing all classes offered for a given semester including credit hours, class hours, costs, instructors, and locations.

COMPASS
An assessment of academic skills given to new students who are pursuing certificate or degree programs or who wish to enroll in English or math; the results are used by advisors in course advisement.

Co-requisite
An additional course or instructional experience which is required to be taken simultaneously with certain courses, such as a science lab which may be required to be taken with a science lecture course.

Counseling
Assistance which students may receive from the Counseling Center regarding course selection, career planning, transfer advising and personal development or problems.

Credit
A value measurement assigned to academic classes; earned credits certify that a student has successfully completed a course of study.

Curriculum
A group of courses offered by a school or college; a group of courses required for a specific major or program at a school or college.

Drop/Add
The official procedure for dropping or adding classes to a student’s schedule, accomplished by filing a “drop/add” form.

Elective
A course which a student may choose to take from a number of alternative courses in order to fulfill a program requirement.

Faculty Advisor
A faculty member who assists students with decisions about programs of study and courses.

Fees
Charges assessed to students other than tuition charges.

Financial Aid
Various forms of financial assistance to help pay college costs (see Grants, Loans, and Scholarships).

GPA
Grade Point Average. Students taking academic classes for credit are assigned a grade which is equal to a certain number of points: A = 4., B = 3., C = 2., D = 1., and E = 0. Grade Point Average is determined by the number of grade points earned divided by the number of credit hours completed.

Grant
A monetary award given to a student based on financial need; a grant does not have to be repaid.

Honors
A program at NMC through which students may earn honors credit by 1) taking special honors classes and/or 2) taking regular classes for honors credit by making arrangements with individual instructors.

In-District
A designation identifying the residency status of a student who lives in Grand Traverse County and pays NMC’s lowest tuition.

In-State
A designation identifying the residency status of a student who lives in a Michigan county other than Grand Traverse and pays higher tuition, also called “Out-of-District.”

Independent Study
Individual in-depth study on a special subject under the guidance of a faculty member.

Liberal Arts
A curriculum which ranges across the broad field of human knowledge, including communications, humanities, social sciences, mathematics and the sciences.

Loan
A monetary award given to a student from a lender (college, bank, savings and loan, credit union) based on financial need; loans must be repaid.

Non-credit
Courses which do not qualify as graduation requirements, such as developmental or specific topic courses; completion of these courses is recorded on a student’s permanent record as a “Q” (qualified) or as a “NQ” (not qualified), but these grades are not part of a student’s grade point average.

Occupational Studies
A curriculum which provides career-specific courses as well as core education courses, designed to prepare graduates for immediate entry into the workforce.
Orientation
A required program for all new NMC students which features an opportunity to become acquainted with campus resources and policies while registering for the first semester of NMC classes. A full complement of services including testing, financial aid, and advising is available to support new students attending the Orientation program.

Out-of-District
A designation identifying the residency status of a student who lives in a Michigan county other than Grand Traverse and pays higher tuition, also called "In-State."

Out-of-State
A designation identifying the residency status of a student who lives outside of Michigan and pays NMC's highest tuition.

Permanent Record
A listing of each student's academic history maintained by NMC's Records Office; these records are confidential.

Postsecondary Education
Education beyond the high school level.

Pre-requisite
Requirements which must be met or courses which must be successfully completed prior to enrolling in a specific course or program.

Program
A planned curriculum in a field of study which includes a list of specific requirements.

Quarter
An academic session lasting about 11 weeks.

Readmission
The process of officially re-entering college at registration time for students who have been away from NMC for one or more semesters.

Registration
The process of officially enrolling in a course(s) and paying tuition.

Residency
The official home address of a student which is used to determine the tuition rate charged; residency classifications are In-District, In-State, and Out-of-State.

Scholarship
A monetary award based on academic ability and/or financial need and/or a donor's specific preferences; scholarships do not have to be repaid.

Semester
An academic session lasting approximately 15 weeks.

Service Area
The six-county area from which NMC primarily draws its students: Antrim, Benzie, Grand Traverse, Kalkaska, Leelanau, and Wexford.

Session
The number of weeks a course meets (15 weeks, 8 weeks, 5 weeks, etc.) during a semester.

Transcript
A copy of a student's permanent record (grades) available upon written request by a student to be released to a third party from NMC's Records Office.

Tuition
The monetary charge a student must pay at registration which equals the number of contact hours with the instructor multiplied by the student's tuition rate, which is based on his/her residency status.

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To obtain information about the special programs listed below, please call the appropriate number or visit www.nmc.edu

Universities located at NMC’s University Center: (231) 995-1776

Guest (MI Uniform Undergraduate Guest Application): Call your Registrar’s office

Special Enrollment Option: (231) 995-1046

Extended Education Services or Lifelong Learning: (231) 995-1700

Dual Enrollment: (231) 995-1022

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1. YOUR NAME (Please carefully print or type)
   LAST NAME FIRST NAME MI FORMER NAME

2. SOCIAL SECURITY NUMBER

3. TELEPHONE NUMBERS (Home & Cell)
   H
   C

4. I am a resident of Grand Traverse County
   □ Yes □ No
   If yes, I can provide verification that I have been a resident since month________year_______.

5. E-MAIL ADDRESS (If used regularly)

6. ADDRESS (Please include street, apt. number and PO Box, if any)

   CITY STATE ZIP CODE

7. COUNTY CODE (See Table E)

8. SEMESTER YOU ARE MOST LIKELY TO BEGIN OR RETURN TO NMC (please select one and designate year)
   □ Fall - August 20 _ _ (Yr) □ Spring - January 20 _ _ (Yr) □ Summer - June 20 _ _ (Yr)

9. APPLICANT TYPE (select one)
   □ 1 = New - never attended any college
   □ 2 = New Transfer - attended college but not NMC
   □ 3 = Returning Transfer - have attended another college since NMC
   □ 4 = Returning - last college was NMC - but not last semester
   □ 5 = Former Dual Enrolled at NMC
   □ 6 = Taking classes at NMC while attending University Center

10. PRIMARY EDUCATIONAL GOAL (select one)
   □ Transfer to a 4-year College or University
   □ Earn an NMC Associate’s Degree
   □ Earn an NMC Certificate
   □ Learn skills to advance in job or to get a new job
   □ Take courses for personal interest only; no degree
   □ Deciding

11. PROGRAM I am requesting admission to the following program: ________________________________
    Program numeric code: ________ (See Table A - PROGRAM CODES)

12. U.S. CITIZEN? □ Yes □ No
    If resident alien, your Alien Registration Number A __________________________

13. GENDER □ Male □ Female

14. DATE OF BIRTH
    Month Day Year
15. Do you consider yourself to be*:  
- [ ] Hispanic or Latino  
- [ ] Not Hispanic or Latino  

Select one or more of the following racial categories*:  
- [ ] American Indian or Alaska Native  
- [ ] Asian  
- [ ] Black or African American  
- [ ] Native Hawaiian or Other Pacific Islander  
- [ ] White  

16. PARENTS’ COLLEGE EXPERIENCE*  
Has either of your parents graduated from a 4-year college or university?  
- [ ] Yes  
- [ ] No  

* Providing this information is voluntary and will be kept confidential. Failure to respond will not subject an applicant to any adverse action.

17. VETERANS: Please check here ___ if you are a veteran and are eligible for educational benefits, or call (231) 995-1057.

18. HIGH SCHOOL BACKGROUND: If you are under 21, please have an official transcript or GED scores sent to the address on pg 1.  

| Name of last high school or home school attended | Code: | See Table C - HIGH SCHOOL CODES |
| City | State |
| When did, or will you graduate from high school or home school? | M/___ Yr/___ |

If you didn’t graduate from high school, will you receive your GED or equivalent?  
- [ ] Yes  
- [ ] No  
If yes, when? | M/___ Yr/___ |

19. COLLEGES OR UNIVERSITIES (Please see “Transcript Requirements” at the bottom of the following page.)  
List all you have attended, giving the most recent first.  
See Table D - COLLEGE CODES  
Attach additional sheet if needed:  
Name:_______________________ code:_________ from M/______ Yr/______ to M/______ Yr/______ Degree:_________  

20. FINANCIAL AID  
Are you interested in financial aid (grants, scholarships, loans, and employment)?  
- [ ] Yes  
- [ ] No  
If yes, please see “Transcript Requirements” at the bottom of the following page.)  
If yes to the above question, have you completed the Free Application for Federal Student Aid?  
- [ ] Yes  
- [ ] No  
Visit www.fafsa.ed.gov to apply online.  
Please Note. Dual Enrolled and home schooled Dual Enrolled students are not eligible for Financial Aid.

21. HOUSING CHOICE (select one)  
- [ ] Home or Off-Campus  
- [ ] Residence Hall  
- [ ] Campus Apartments

22. PERSONAL HISTORY (Please answer both)  
Have you ever been convicted of a felony or misdemeanor?  
- [ ] Yes  
- [ ] No  
If yes, please explain on a separate sheet.  
Do you have any felony charges pending?  
- [ ] Yes  
- [ ] No  
If yes, please explain on a separate sheet.

23. APPLICATION MUST BE SIGNED BEFORE BEING CONSIDERED FOR ADMISSION.  
- [ ] I certify that the information provided on this application is complete and accurate in every respect.  
- [ ] I understand that falsification or omission of any information requested on this application may result in cancellation of admission or registration.  
- [ ] If admitted, I agree to observe all rules and regulations of NMC as printed in the College Catalog and Student Handbook.  
- [ ] By signing this application, I am granting permission to NMC, its agents and staff to use video and photographs of myself for NMC promotional/advertising materials without charge. No promises have been made, no consideration is involved for their use.  
If I do not want NMC to use video and photographs of myself, I will inform the Dean for Student Services.

Signature ____________________________ Date ____________________________

24. Please send completed application and the $20 application fee to the address shown on front of application.

NMC complies with Title IX of the Education Amendments of 1972 and with Section 504 of the Rehabilitation Act of 1973 which prohibit discrimination on the basis of sex, mental, or physical disability in educational programs and activities receiving Federal financial assistance from the U.S. Department of Education. For inquiries, please contact the Diversity Coordinator at Northwestern Michigan College, 1701 E. Front Street, Traverse City, Michigan 49686 or call (231) 995-1043.
• More than 60 programs of study
• Online learning options
• Small classes = personal attention