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SUMMER 2010  Early Registration Payment Deadline Date is May 5, 2010

- Online Schedule Available: March 22, 2010
- Registration Begins: March 31, 2010
- Semester Begins: June 7, 2010
- Last Day to Register Online for Semester: June 11, 2010 by 5:00 p.m.
- Semester Ends: July 30, 2010

**Official Withdrawals**

<table>
<thead>
<tr>
<th>Refund Type</th>
<th>Deadline Details</th>
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<tr>
<td>100% Refund</td>
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<tr>
<td>90% Refund</td>
<td>Between June 7-11, 2010, 5:00 p.m. deadline on June 11, 2010</td>
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<td>July 16, 2010, 5:00 p.m. deadline</td>
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FALL 2010  Early Registration Payment Deadline Date is August 4, 2010

- Online Schedule Available: March 22, 2010
- Registration Begins: April 14, 2010
- Last Day to Register Online for Semester: September 13, 2010 by 7:00 p.m.
- Semester Begins: September 7, 2010
- Thanksgiving Break: November 25-26, 2010
- Semester Ends: December 17, 2010

**Official Withdrawals**

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<td>Last Date to Withdraw with a “W”</td>
<td>December 10, 2010</td>
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WINTER 2011

- Registration begins: November 17, 2010
- Semester begins: January 17, 2011
- Semester ends: May 13, 2011

The information contained in this catalog is subject to change. Go to www.ncmich.edu for the most current information on policies, programs, course offerings, fees and other content material in this document.
**Dear Reader:**

This catalog is a very important document: It lists the programs of study and courses offered by North Central. It also contains the policies and procedures that you need to know and must follow to be a successful student.

You should keep this catalog as a reference throughout your time at North Central. In addition to using the catalog, you should take advantage of the advising services offered by North Central to make sure that you can maximize your investments of time and money in your education.

This catalog is divided into three main sections. At the front are the policies and procedures you must understand and follow as a student. In the middle are the programs of study that lead to degrees and certificates. In the back are the individual courses offered by North Central. Not every course is offered every semester so you must plan carefully to make sure that you are able to complete your chosen program of study as efficiently as possible. Also listed in the back are the names and contact information for the staff and faculty of North Central. They are here to help you so do not hesitate to contact someone when you need assistance.

North Central serves as a pathway to further educational opportunities beyond our campus. Agreements with other institutions of higher education ensure that credits earned here may be used toward the completion of advanced degrees elsewhere. Our University Center partners offer programs for students to pursue advanced degrees on our campus. A listing of our partners and the programs they offer can be found in this catalog.

Students come to North Central for many reasons and stay for varying lengths of time. Whether your goal is one or two classes, a certificate or an associate’s degree, you will find our faculty and staff helpful and committed to your success. As part of that commitment, North Central participates in a nationwide initiative called “Achieving the Dream: Community Colleges Count.” The purpose of this initiative is to make sure that we are doing all we can to ensure the success of our students.

Sincerely,

Cameron Brunet-Koch, Ph.D.
President

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**FOOTNOTE**

This catalog contains information on the College’s policies, services, academic degree and certificate programs, course descriptions and enrollment procedures. The following resources are also available to obtain the most up-to-date information: the North Central website, www.ncmich.edu, the semester schedule of courses and college events and North Central’s academic advisors and counselors.

If you are thinking about enrolling but don’t know where to start, call Student Services at 888-298-6605 or 231-348-6605.
Terminology

**Associate of Arts (AA):**
A degree designed to transfer to a four-year college or university by delivering typical freshman and sophomore year general education coursework. An AA degree is not awarded in a specific subject area, but its foundational courses allow the student to major in a subject area in his/her junior year.

**Associate of Applied Science (AAS):**
A degree designed for the student who plans to pursue a career or advance his/her career immediately upon graduation. Students planning to pursue a bachelor's degree using the AAS as a foundation should carefully choose their coursework with an advisor to maximize transferability. The AAS degree is awarded in specific areas of expertise, e.g., the AAS in Business Management.

**Associate of General Studies (AGS):**
A degree designed for the student wishing flexibility in defining specific educational objectives. It can accommodate the student who plans to transfer as well as one who wishes to pursue a career immediately upon graduation. The AGS degree is not awarded in a specific subject area.

**Associate of Science (AS):**
A degree similar to the AA degree, but with a strong emphasis on the natural sciences and mathematics. It is designed for the student who will transfer to a four-year college or university to pursue studies of a scientific nature.

**Certificate:**
A certificate is a short-term career program. Most certificates are composed of 10 courses, half the number in the typical AAS degree. Often certificates can be earned in one year of full-time enrollment; however, the time may be longer if a student attends part-time. Credits earned toward a certificate can be used to earn an AAS degree in the same area.

**Certificate of Development:**
Certificates of Development are awarded in various technical fields after program requirements are fulfilled. A Certificate of Development has fewer than 30 credit hours.

**Credit hours (or credits):**
The number of instructional hours awarded to a student for completion of an academic course. A semester credit hour includes a minimum of 800 instructional minutes.

**Contact hours:**
The number of hours per week of scheduled classroom, lab and clinical instruction time required for an academic course. Contact hours are used to calculate tuition effective with the Summer 2010 semester. Contact hours are listed in the class schedule published prior to the start of each semester and in the Programs of Study section of this catalog.

**Degree/Curriculum Plan:**
A written plan for attaining the student’s educational goal. The plan usually outlines the courses or categories of courses that should be selected each semester over the length of the student’s intended time at North Central. It is developed by the student with a counselor or academic advisor.

**Enrollment:**
The steps necessary to register for classes. Admission, assessment, orientation, academic advising, course selection, registration and payment are all steps in the process.

**Enrollment status:**
Full-time status means a student is enrolled in classes totaling 12 or more credit hours during the regular fall or winter semester; enrollment in 11 or fewer credit hours constitutes part-time status. Financial aid recipients should consult financial aid policies contained in this catalog as the enrollment status rules are different.
Prerequisite:
A course that must be taken prior to enrollment in an advanced course. Current mastery of prerequisite information facilitates further study in a content area.

Registration:
The process of selecting and paying for courses. All students receive a username and password that provide access to on-line registration. See the College’s website: www.ncmich.edu.

Semester:
An instructional period that is typically 16 weeks for fall and winter, eight weeks in the summer.

Student Services:
Admissions, financial aid, counseling, registration, records, enrollment management, student activities, residence hall, Learning Support Services and the Dean of Student Services.
OVERVIEW

North Central Michigan College was established in 1958. The first graduating class in 1960 was made up of six women: three from Petoskey, two from Charlevoix and one from Vanderbilt. Development of the current campus began in 1962 when the College bought 10 acres of land and later 120 adjacent acres on Howard Street.

By 1963, the first buildings were completed and some classes were held on the new campus at 1515 Howard Street.

Over the next few years, more land was purchased for additional facilities. The Library/Conference Center was added in 1984.

The newest addition to the campus is the 71,000 square foot Student and Community Resource Center, completed in 2001. The SCRC has physical education and recreation facilities, the College Store and Learning Support Services (LSS). LSS offers open computer labs, a tutoring center, assessment and testing facilities and study areas. The lower level of the Student Center houses all of the student services functions of the College.

College Funding
North Central Michigan College is supported financially through millage revenues from Emmet County, tuition and fees paid by students, and funds from the State of Michigan.

Our Mission
We provide educational, economic, and cultural opportunities for student learning, personal growth, and community improvement.

Our Philosophy
We improve the quality of life for our students and the communities we serve.

Accreditation
North Central Michigan College is recognized by the Department of Education of the State of Michigan. The College is accredited by the Higher Learning Commission and is a member of the North Central Association.

Certain programs at North Central also carry additional approval status and/or national accreditation. Documents describing licensing and accreditation are available for review in the President’s office.

North Central is a member of the American Association of Community Colleges, the Michigan Community College Association and the Association of Community College Trustees.

Guarantee for Associate of Arts/Associate of Science Degree

North Central Michigan College will refund the cost of a course’s tuition to an Associate of Arts or Associate of Science graduate for any specific North Central course that was part of the graduate’s AA or AS degree program at North Central and the course fails to transfer to an accredited four-year institution if all of the following conditions have been met:

1. The course has been defined by North Central as a liberal arts and science course (excluding mathematics below the College Algebra level);
2. The course has been determined by the regionally accredited senior institution to be transferable; and
3. Has a final grade of “C” or higher.

To qualify, the student must:
1. Have earned an Associate of Arts or Science degree after January 1, 2006;
2. Meet the admission criteria of the baccalaureate degree institution;
3. Transfer the course to a baccalaureate degree institution within four years of completing the
course; and
4. Attempt to transfer no more than the maximum number of credits acceptable to the university from a two-year institution.

Students must recognize that “transfer of a course” does not necessarily equate with that course meeting a particular institution’s specific program or degree requirements.

Transferability comes in many forms: course-for-course equivalency, departmental credit and university credit. Audited courses are excluded from this guarantee.

**Campus and Technology**

**Administration/Classroom Building**
The Administration/Classroom Building houses classrooms, faculty offices, academic computer labs, an interactive TV room, administrative offices, business office, regional offices for several four-year colleges and universities, the President’s office, Marketing and NCMC Foundation and alumni offices.

**Chemistry and Science Buildings**
Classrooms, labs and faculty offices for biology, chemistry, physics, astronomy and other areas of science are housed in the Chemistry and Science buildings. A greenhouse attached to the Science Building is used for experiments and classroom activities.

**Technology Center**
The Technology Center houses labs and classrooms for computer and technical training in areas such as AutoCAD, computer technologies, electronics and computer network technologies.

**Library**
North Central has the largest research library in the area with high-speed Internet access, a wide variety of on-line resources, in-house databases, electronic journals, magazines, newspapers, books and the U.S. government documents repository for the 1st Congressional District of Michigan.

The Library offers a wide variety of high-technology services for students, faculty, staff and the community. They include traditional and on-line library services, state-of-the-art videoconferencing, wireless Internet access, support for on-line courses facilitated by North Central faculty, multi-media production, podcasting and vodcasting, and Smart Classroom technology used by North Central faculty and students. The Library also has meeting rooms for student use.

**Smart Classrooms**
Most of North Central’s classrooms are equipped with Smart Classroom technology. Data and video projection, instructor Internet access and multi-media audio are available to provide students with an enhanced learning experience.

**Student Center**
All student services functions, including admissions, financial aid, registration, counseling and student records, are located in the lower level of the Student Center.

**Cafeteria**
North Central offers food service for students, faculty, staff and guests throughout the school year. See the College website for more information.

**Residence Hall**

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On-campus housing is available for up to 148 students. Each room in the residence hall has a cable TV hookup and a drop box for Internet access. The lobby has a big-screen TV, fireplace and a staffed reception desk. Other amenities include ping pong tables, weight room, kitchenettes and pool tables.

**Campus Technology Infrastructure**
All labs and classrooms on the Petoskey campus have access to the Internet via high-speed connections. Secure wireless access to the Internet is available in many areas on campus. Students in the residence hall have access to the Internet via high-speed connections in their rooms. Use of the high-speed and wireless systems requires completion of the Student and Community Portal Access page. Go to www.ncmich.edu and click on the Student and Community Portal. For assistance, call the technology helpdesk at 231-348-6615 or toll-free at 866-900-6235.

**Videoconferencing/Interactive Video**
North Central has one videoconferencing facility as well as portable videoconferencing equipment. Courses and degree programs are offered on campus via ITV from university partners.

**Satellite Downlinking (Teleconferencing)**
The Library can provide satellite downlink services for College and community events.

**Multi-Media Production**
The Library can provide non-linear editing of video and audio for faculty.

**Angel**
Angel is an electronic learning management system which provides a wide variety of on-line learning services to students in traditional classes and on-line course offerings. A technology helpdesk for students is also available by calling 231-348-6615 or, toll-free, 866-900-6235. For more information, go to www.ncmich.edu and enter the Student and Community Portal.

**MyMAIL**
The free North Central e-mail account. The College will send important information by MyMail and, after July 1, 2010, it will be the primary way students will receive correspondence from North Central.

**Student and Community Portal**
The gateway to technology and resources at North Central such as registration and account information. Students are required to complete an Entry Access Page to establish passwords in addition to an application for admission.

**Student and Community Resource Center (SCRC)**
North Central’s 71,000 square-foot SCRC has a multipurpose gymnasium designed for a variety of recreation and physical education activities. A walking track, 1/9 mile in length, is available to the public at no charge. Locker rooms with showers are open to anyone using the facilities. Upstairs, an exercise facility equipped with weight training and exercise equipment is available for individuals enrolled in fitness classes.

The SCRC also houses the College Store, Learning Support Services, open computer labs, a tutoring center, assessment and testing center and study areas.

**Institute for Business and Industry Training (IBIT)**
The Institute for Business and Industry Training is a division of North Central created to respond to the needs of area businesses. IBIT offers non-credit job skills training tailored to meet individual needs. IBIT provides:
- Skills to match high-demand fields
- Training on current technology and equipment
- Hands-on experience-based learning
- Convenient schedule and location
- Classrooms brought to the business
- Funding assistance. IBIT helps secure state and federal funds to offset training costs for qualified businesses
- Portable computer lab for on-site training

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
• Certificate of Completion and CEUs recognized by industry

Examples of programs offered by IBIT:
• Computers in Business
• Human Resource Skills (Communications, Team Building, Leadership)
• Manufacturing Technology (Lean Manufacturing, PLC, Blueprint Reading, CAD)
• Quality Control (ISO 9000, QS/TS)
• Workplace Safety
• Youth Career Development

Tech Prep
Tech Prep is a planned course of study that begins in high school and leads to an associate’s degree at North Central Michigan College. This course of study combines technology, applied academics and work-based learning experiences to prepare the student for high-demand, high-wage careers. Students who participate in Tech Prep in high school can earn and articulate 3 to 17 hours of credit toward an associate’s degree at North Central. Students in the Charlevoix-Emmet and the Cheboygan-Otsego-Presque Isle intermediate school districts may qualify for Tech Prep. For more information, contact your local high school counselor or North Central’s Tech Prep coordinator at 231-439-6353.

Natural Area
The Natural Area is 195 acres of relatively wild land adjoining and south of the developed campus in Petoskey. The Natural Area can be accessed from the southeast corner of the parking lot near the Student and Community Resource Center (Lot #6 on campus maps).

The Natural Area is bordered by the Bear River to the south (except for about 7.2 acres south of the river), farmland to the east and woodland to the west. The landscape itself gives a record of the environmental changes since the last Ice Age: mainly glacial deposits associated with retreating glaciers and remnants of floodplains abandoned by the Bear River as the water levels in Lake Michigan have dropped. A dozen different biotic communities, both upland and wetland, can be found within the boundaries of the Natural Area, making it an excellent place for environmental studies, photography, and wildlife observation. North Central Michigan College has dedicated this land as a natural area to be utilized by:
1. Area students—so that they are able to learn more about the natural history of northern Michigan ecosystems and organisms
2. Wildlife—so that wild creatures are able to seek a natural place in an increasingly unnatural world
3. The community—so that visitors are able to enjoy the beauty and solitude of its forest, fields, streams and wetlands.

More information can be found at the entrance to the Natural Area as well as the College website, including trail maps, interpretive materials, permitted activities, scheduled programs and community activities.

University Center
North Central Michigan College and six universities have joined together to form a University Center partnership. This partnership with Central Michigan University, Ferris State University, Lake Superior State University, Lawrence Technological University, Michigan State University and Spring Arbor University affords significant benefits and opportunities to North Central students. North Central students can complete the first two or, in some cases, three years of their coursework for a bachelor’s degree in certain areas through North Central. The remainder can be completed through the course offerings of the University Center partners. The majority of the classes required by University Center partners are offered on North Central’s Petoskey campus. Students can save substantial amounts of money by paying North Central’s low tuition rates for the majority of their bachelor’s degree programs. Current programs are listed below.

Central Michigan University
M.A. Education - Instruction Concentration
Ferris State University
A.A.S. Respiratory Care

Lake Superior State University
B.S. Business Administration (minor options available in Marketing and Public Relations, and Sociology)
B.S. Accounting - CPA Track
B.S./B.A. Early Childhood Education
B.S./B.A. Individualized Studies
B.S./B.A. Liberal Studies
B.S.N. Nursing Completion
B.S. Criminal Justice-Law Enforcement

Lawrence Technological University
Master’s in Business Administration (MBA)

Michigan State University
Landscape and Nursery Certificate
Applied Plant Science Program Certificates
• Commercial Horticulture Operations
• Commercial Turfgrass Operations

Spring Arbor University
B.A. Elementary Education *
B.A. Secondary Education
Post B.A. Elementary Education *
Post B.A. Secondary Education
Bachelor in Social Work (BSW)
* ZA Endorsement (Early Childhood Education)

Contact Information for University Center partners:

Central Michigan University
Judy Nemitz, Program Administrator
NMC University Center
2200 Dendrinos Drive
Suite 200 Q
Traverse City, MI 49684
231-995-1756
231-995-1758 fax
nemit1jj@cmich.edu

Ferris State University
Nancy L. Reddy, Ed.D. Executive Director
Ferris State University of Northern Michigan
2200 Dendrinos Drive, Suite 200H
Traverse City, MI 49684
231-995-1735
866-857-1954
231-995-1736 fax
reddyn@ferris.edu
www.ferris.edu/ucel

Lake Superior State University
Joe Balinski, Director
LSSU Petoskey Regional Center
Lawrence Technological University
Tricia Fewins, Manager
Northern Michigan Education Centers
North Central Michigan College University Center
Room 47
1515 Howard Street
Petoskey MI 49770
231-995-1725
231-995-1723 fax
Toll Free: 877-LTU-8866
tfewins@ltu.edu

Michigan State University
L. Andrew Norman, Coordinator
MSU Northern Michigan Plant Science Program
2200 Dendrinos Drive
Suite 100
Traverse City, MI 49684-8895
231-995-1719
231-929-0454 fax
normanl@msu.edu
www.nmc.edu/ucenter/plant.htm

Spring Arbor University
Sara Lancaster
North Central Michigan College University Center
Room 42
1515 Howard Street
Petoskey, MI 49770
231-439-6203
231-439-6333 fax
slancast@arbor.edu

Director of University Center at North Central Michigan College
John Jeffrey, Ed. D.
1515 Howard Street
Petoskey, MI 49770
231-439-6546
231-348-6628 fax
jjeffrey@ncmich.edu
**College Centers**
North Central has three College Centers located in Cheboygan, East Jordan, and Gaylord in addition to the main campus.

Once admitted to North Central, students may take classes at any or all of these locations for added convenience toward reaching their educational goals. COMPASS testing and academic advising are available by appointment at the College Centers. On the main campus in Petoskey, appointments are necessary for advising but not for COMPASS testing.

The Schedule of Classes and Registration web module will indicate the locations of specific courses each semester. Computer Lab facilities for students to connect with college on line services, the internet and Microsoft Office applications are available in Cheboygan and Gaylord locations.

**Cheboygan Center**
The Cheboygan Center offers courses needed toward associate’s or bachelor’s degrees. Classes are held at Cheboygan High School during the evening hours. The Cheboygan Center Office is located in the counseling office of Cheboygan High School at 801 West Lincoln Avenue. Daytime classes are held at the Cheboygan Board of Education Building and the Cheboygan Public Library.

**Gaylord Center**
North Central Michigan College is a member of the University Center at Gaylord. Students can earn a North Central Associate of Arts, Associate of General Studies, and Associate of Applied Science in Geographical Information Systems degree or take initial coursework toward an associate of applied science, a bachelor’s degree, or a master’s degrees with one of the other participating University Center partners:
- Davenport University
- Eastern Michigan University
- Kirtland Community College (M-TEC)
- Lake Superior State University
- Madonna University
- Michigan State University
- Spring Arbor University

The Gaylord Center offers up-to-date technology with computer classrooms that give instructors and students access to a wide variety of multimedia applications. The Gaylord Center is located in the University Center at Gaylord at 80 Livingston Boulevard, Gaylord, off Old US-27.

**East Jordan Center**
The East Jordan Center offers courses needed toward an associate’s or bachelor’s degree. Classes are held in the Lake Street Center (formerly the Dura Building) located at 115 South Lake Street, East Jordan. Scholarships may be available to East Jordan residents who attend this Center. Contact the Center Office for more information.
Admission and Enrollment

General Admission Policy
North Central follows an open-door policy of admitting high school graduates or GED holders, non-high school graduates at least 18 years of age and high school students under Michigan Dual Enrollment guidelines. There is no cost to apply for admission to North Central Michigan College. All students must demonstrate the ability to benefit from the instructional programs offered by the College. The standards used to determine ability to benefit are testing and/or prior college transcripts. Assessment testing standards are based on federal financial aid guidelines for ability to benefit.

Student Identification
North Central will issue to each student a unique student number, login identification and password. The password may be changed. The student will use the login and password to enter the North Central Student and Community Portal which will be the student’s gateway to registration, accessing grades, Angel, MyMail, the Library, wireless Internet access and more. Student passwords will not be on file at North Central. It is important that each student remember and keep his or her login and password in a safe place. This information should not be shared with anyone other than College employees and other responsible parties. Students will be held responsible for any activity generated through the use of their identification numbers.

Assessment
Students who are preparing to transfer, seeking a degree or certificate, or planning to take math or English courses must have assessment scores. COMPASS, ACT or SAT scores may be used to satisfy the College’s assessment requirement. It is recommended that assessment scores be submitted before or at the time of college admission to facilitate the student’s ability to register for classes. Students who have not taken the ACT or SAT will participate in the COMPASS assessment. Although the test is not timed, students should allow up to 2.5 hours for the assessment. COMPASS is available on a walk-in basis in Petoskey in Learning Support Services or by appointment at the Cheboygan, Gaylord and East Jordan centers. After assessment, it is recommended that students make an appointment to meet with an academic advisor.

Exemptions from Assessment Testing
The following qualify as exemptions from the assessment requirement with documentation provided to North Central Student Services. Students must meet prerequisites for all courses.
1. ACT/SAT, ASSET or COMPASS scores
2. Guest student status
3. An earned associate’s degree or beyond
4. Proof of 15 or more transfer credit hours that include satisfactory completion of English and Math credits
5. Personal Interest student status and not enrolling in math or English courses

CLEP Testing
The College-Level Examination Program (CLEP) is available through Learning Support Services by appointment. These subject-specific tests allow a student to demonstrate mastery of a subject and thus earn college credit. North Central will accept up to 15 hours of CLEP credit with scores of 50 or above. Both CLEP and North Central charge fees for this testing. CLEP testing cannot be used to replace a grade in a course previously taken.

NOTE: When transferring to another college or university, you may be required to take the courses that were waived or for which competency was demonstrated at North Central.
Registration Steps

1. **Sign up for the Student and Community Portal.**
   Go to www.ncmich.edu and click on Student and Community Portal. Once you have completed the Portal Access page you’ll be directed to Step Two.

2. **Apply for Admission.**
   You will be notified of your status by mail.

3. **Submit your ACT scores or take the COMPASS.**
   Assessment is mandatory and assists us in recommending courses to maximize your success. If you have taken the ACT, you do not need to take the COMPASS. Take the free COMPASS in Learning Support Services in Petoskey. (A charge applies for retakes.) No appointment is necessary. Phone: 231-348-6682

4. **Check your College MyMail account.**
   You now have an e-mail account at North Central. Check often for official College correspondence. Your username is your username from the Student and Community Portal. Your address would be: username@student.ncmich.edu.

5. **Submit Your Transcripts (transfer students).**
   Request that all colleges you have attended send official transcripts to our Records Office.

6. **Apply for Financial Aid (optional)**
   North Central participates in state and federal assistance programs and scholarships. Follow the instructions on the “Financial Aid Application Steps” publication available in paper form or on the web under “Paying for College.” Apply early as processing takes at least four weeks.

7. **Apply for Housing (optional).**
   Check out our Residence Hall for affordable, fun and safe on-campus living. Call Student Services in Petoskey for information and to schedule a tour.

8. **Program Advising.**
   Meet with counselors or academic advisors to receive assistance in course selection and academic planning. Call Student Services at any location for an appointment.

9. **Register for Classes.**
   Web registration is quick and easy. Complete the steps above, log in to the Student and Community Portal using your username and password, and choose My North Central. You are now ready to register online.

10. **Orientation Options.**
    Find out information that is important for your success at the College. You will be invited to a group session and on-line sessions.

11. **Pay for classes.**
    Payment due dates are set and published on the web. They can also be found on our class schedule each semester and on your bill. For payment options, check Paying for College on the web.

**Former North Central Michigan College students**
Former North Central students who are credential-seeking but have not previously taken English or Math courses or do not have assessment scores on record are required to take or furnish ACT or COMPASS scores before being released to register for classes.

**High School Dual Enrollment Students**
North Central offers high school students an opportunity to attend college while in high school in accordance with Michigan Dual Enrollment legislation. High school students in grades 11 and 12 may be eligible for dual enrollment.
as recommended by their high school. Students apply on-line for admission to the College. Each semester, students meet with their high school counselor to complete the Request for Registration form for submission to the College. Depending on the course selected, students may be required to submit ACT or COMPASS assessment scores. Requirements are outlined in dual enrollment information provided to students and high school counselors. Information is also available from the admissions office of the College. Requirements are subject to change in accordance with state law.

Former High School Dual-Enrolled Students
Former high school dual-enrolled students are required to complete a new application for admission if they wish to continue or return to North Central after graduation from high school. Former dual-enrolled students are required to furnish ACT scores or take the COMPASS assessment test before being released to register for classes.

Personal Interest Students
Students who take courses for personal interest and do not plan to earn a degree, certificate or transfer are not eligible for financial aid. Personal interest students are exempt from assessment unless an English or math course is selected or a prerequisite is required.

Steps for Transfer Students
1. Be admitted to North Central.
2. Complete any required assessment testing.
3. Request and submit official transcripts. Student grade reports or student copies are not acceptable for credit evaluation. Allow 10 days for processing after transcripts are received by North Central.

Rules regarding transfer of credits:
- Only credits granted by schools accredited by regional accrediting associations will be considered for transfer to North Central.
- Credits, not grades, are transferred for "C" (2.0) or better courses. In most cases, courses will be accepted for equivalent North Central courses or elective credit.
- No evaluation of credit is made for a student who has received a two- or four-year degree from another institution, except for coursework that applies to the student’s declared program of study at North Central.
- Military Service School credit may be awarded where such credit is applicable to the student’s declared program of study. Evaluations are consistent with the American Council on Education’s Guide to the Evaluation of Education Experiences in the Armed Forces recommendations. North Central allows up to 30 semester credits from military service schools.
- North Central will recognize up to 15 credits for Advanced Placement (AP) and/or College-Level Examination Program (CLEP), provided scores on the AP are three or higher and CLEP scores are 50 or above.
- North Central may recognize up to 30 semester credits in transfer from trade schools or apprenticeship programs certified by the Michigan Department of Education.
- No more than 45 semester credits from all external sources will be utilized in transfer by North Central toward a degree or certificate. Note that 15 semester credit hours must be taken from North Central (8 credit hours for a certificate of development) before a certificate, degree or MACRAO certification may be earned.
- North Central will not replace a student’s grade recorded for a course taken at North Central with a grade from an equivalent course taken by the student at another institution and transferred back to North Central.
- Quarter credits or other units of credit transferred in will be converted to semester credits and must equal the required semester credits for the purpose of satisfying graduation requirements.

Guidelines for Transferring Credits to North Central Michigan College
Students who have completed courses at other colleges or universities must request an official transcript be sent to the Registrar. All transcripts must be sent directly from the transferring institution to North Central. Hand-delivered transcripts will not be accepted. An evaluation will not be made unless a student has completed an Application for Admission to North Central Michigan College.
Guest Students
Students attending other colleges may enroll at North Central as guest students. Guest students are not required to take an assessment test; however, students must meet prerequisites for any course. Official or unofficial transcripts may verify prerequisites. A guest student must apply on-line and may also submit a Michigan Uniform Guest Application (optional). Advice on course selection and transferability should be addressed with the student’s home institution prior to registration.

International Students
North Central Michigan College is authorized under federal law to issue visa documents for foreign nationals to obtain F-1 student status. The following steps detail the process for an international applicant to become admitted to North Central:

1. **Apply for admission.**
   - The on-line North Central Michigan College Application for Admission is available at www.ncmich.edu.
   - International students must apply no later than 10 weeks prior to the beginning of the semester.

2. **Show proof of academic ability.**
   - Submit transcripts of courses taken at all secondary schools and universities.
   - College credit may be awarded for international university coursework if the applicant submits transcripts to a recognized credit evaluation agency.

To be issued the necessary visa documents, international students, including commuting Canadians, must do the following:

1. Submit all required forms and deposits in the international student packet. This packet provides specific admissions and enrollment information and is available by contacting Student Services or visiting the College’s website.
2. Demonstrate a sufficient level of financial support with documentation verifying the availability of funds. Financial aid is not available for international students from North Central Michigan College or U.S. federal or state governments.
   - All applicants whose native language is not English must demonstrate adequate knowledge of written English. On the Test of English as a Foreign Language (TOEFL), a score of 550 or higher on the paper-based test, 213 or higher on the computer-based test, or 79-80 or higher on the Internet-based test is required proof of English proficiency. North Central Michigan College's TOEFL code number for score reporting purposes is 1569.

All international students are required to maintain full-time enrollment status during the regular fall and winter semesters. No more than one course per semester may be taken in a distance format. All international students are also required to carry an approved medical insurance policy to cover major medical expenses; those without adequate medical insurance will be required to enroll in a student insurance program available through North Central.

It is the responsibility of the foreign national to properly maintain his/her visa status. Those internationals who have a visa status other than F-1 may enroll at North Central, provided placement testing indicates an ability to benefit from college-level courses taught in the English language, and provided their visa status allows college enrollment.

Foreign nationals already in the United States who wish to change their visa status to F-1 must undergo the International Admission process, including evidence of English language ability and sufficient financial support. The process of changing visa status takes up to three months. No tuition reimbursement or final grade provision can be made for an enrolled international student. Students who are in the United States under various nonimmigrant visa categories are not eligible for in-district or in-state residency status for tuition purposes.

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Nursing Program Applicants
North Central Michigan College offers the Associate of Applied Science in Nursing degree for those entering nursing for the first time, and LPNs who seek an Associate of Applied Science Degree in Nursing. Nursing program requirements can be found in the Nursing Student Handbook and in the catalog. This handbook can be found on the North Central website.

Questions should be directed to Admissions at 231-348-6626 or the Nursing and Allied Health Department at 231-348-6696. Check the North Central website www.ncmich.edu/nursing.html frequently for updates and changes.

Steps for Nursing Program Applicants

1. **Sign up for the Student and Community Portal.**
   You will be signing up for college services you will need such as registration, accessing your grades, free Google e-mail, wireless service, use of College computers, and library access. Go to www.ncmich.edu and click on Student and Community Portal. Once you have completed the Portal Access page you will be directed to Step Two.

2. **Apply for admission to North Central.**
   You will be notified of your status by mail.

3. **Submit your ACT scores or take the COMPASS.**
   Assessment is mandatory. Submit ACT scores or take the COMPASS offered by the College at no cost. If you are entering college directly from high school and have taken the ACT, these results must be on file in the North Central Admissions Office. Applicants no longer in high school are not required to take the ACT. Students with prior college experience may be exempt from assessment; call Admissions for information.

4. **Submit your transcripts.**
   Separate official transcripts must be sent to both the College and the Nursing and Allied Health Department from each other college and university that you have previously attended. Request these as early as possible so that prior course work may be evaluated to determine if nursing applicant requirements have been met. If North Central is the only college you have attended, the Nursing and Allied Health Department will obtain your North Central transcript. If you intend to use your high school chemistry and algebra courses to meet nursing program requirements, you must submit a copy of your high school transcript to the Nursing and Allied Health Department. The College may accept credits for transfer that will not be eligible to meet nursing program requirements. Chemistry and math prerequisites must be completed before an application to the nursing program may be submitted.

5. **Review the Nursing Program Overview and Admission Requirements.**
   This publication presents in detail the admission requirements, nursing applicants’ course requirements, estimated program costs, degree completion strategies, a plan of work so that you can track your progress, and the Application for Admission to the Nursing Program. Go to www.ncmich.edu/nursing.html.

6. **Program Advising.**
   All new applicants who list “250 Nursing” as their program of study will be assigned one of the Nursing and Allied Health Department faculty members as their academic advisor during their first semester of enrollment in the College. Plan to be in regular contact with your faculty advisor as you plan your schedule.

7. **Apply for admission to the Nursing Program as early as possible.**
   The application is available on line at www.ncmich.edu/nursing.html. The deadline is December 1 of the year prior to anticipated fall entry. However, early submittal prior to the deadline gives the Nursing faculty more time to process a student’s application. You should continue to take any of the non-nursing course requirements and submit your Application for Admission to the Nursing Program in order to meet the December deadline. Admission decisions are made and communicated to applicants in April or May by the Nursing and Allied Health Department.
NOTE: Your application will not be considered until you have completed MTH 111 and CEM 101 or their equivalents. However, you may apply to the program while taking CEM 101 during the fall semester.

Nursing Admission Requirements
1. Competitive Admission: Admission to the Nursing program is competitive and not guaranteed. Applicants must meet specific admission requirements in addition to the general admission requirements of the College. Candidates are chosen in the spring preceding each fall entry date.

2. Basis of Selection: Students are selected based on the following:
   - Amount of coursework completed within the General Education Requirements and Program Requirements on the Nursing Applicant Planning Form. The Nursing Applicant Planning Form may be found on the web at www.ncmich.edu. Go to Programs of Study, North Central Associate degrees, and then 250 Nursing.
   - Calculated grade point average of the General Education Requirements and the Program Requirements on the Planning Form.
   - Grades in science courses (BIO 235, BIO 236, BIO 226).
   - Grades in MTH 111 and CEM 101.
   - Scores on the Test of Essential Academic Skills (TEAS). Information about the TEAS may be found at www.atitesting.com. Announcement for dates and times for administration of the TEAS will be announced on the College web page in December and January.
   - Students should be in good physical condition to meet the demands of the program. See Nursing Handbook under “Standards and Functional Abilities.”
   - An applicant’s credentials will be reviewed only if his/her high school or college cumulative grade point average is at least 2.75. Applicants should be aware that, traditionally, entering class grade point averages have been well above 3.0. All math and science courses must be completed with a C or better no more than five years prior to admission to the nursing program.
   - Completion of one year of high school chemistry or general college chemistry (4 credit hours equivalent to North Central Chemistry 101) is required. If your chemistry course was completed more than 5 years prior to your application for admission, you may contact Learning Support Services for the Chemistry CLEP Exam. You may meet your chemistry requirement by passing this exam.
   - MTH 111 must be completed or waived through ACT/COMPASS scores. MTH 111 may be waived with an ACT Math score of 21 or better or an equivalent COMPASS score. The student must ensure that the Registrar and the Nursing and Allied Health Department receive the results of those examinations. Students are most successful when they complete Anatomy and Physiology (BIO 235, BIO 236) and Microbiology (BIO 226) with a grade of B or better prior to entrance into the nursing program. Courses repeated more than one time may negatively influence admission.
   - Nursing coursework will not transfer in if completed more than 2 years prior to admission to the program.

3. Conditional acceptance. Students who are accepted into the program will be required to do the following:
   - Have a criminal background check completed by the State of Michigan. Students may be denied admission based on the results of the background check;
   - Provide a medical history form available from the Nursing and Allied Health Department and completed by a physician. Students should be in good physical condition to meet the demands of the program and the profession as outlined in the Nursing Handbook under “Standards and Functional Abilities.” Abilities include lifting at least 35 pounds, standing for up to two hours at a time, walking quickly in crowded spaces, climbing 50 stairs, and pushing 100 pounds;
   - Provide annual proof of a negative tuberculin test or negative chest x-ray in case of positive skin test;
   - Keep all required immunizations up to date including Hepatitis B;
   - Maintain current health insurance;
   - Maintain current Basic Life Support (BLS) for the Professional Rescuer;
   - Adhere to the Nursing Code of Conduct;
   - Attend a mandatory orientation program prior to the fall semester.

4. Equal Opportunity: Admission requirements reflect the College’s commitment to equal opportunity and treatment of students. It is College policy to offer admission, housing, employment, campus activities and financial
aid without regard to race, color, national origin, religion, sex, sexual orientation, age, height, weight, marital status or familial status, or disability protected by relevant law.

**EMS/Paramedic Program**
The EMS/Paramedic Program at North Central offers students four levels of study to prepare them to work in pre-hospital emergency support services. Students in each of these programs are expected to complete a rigorous course of study and to meet minimum requirements established by the licensing board of the State of Michigan. All programs are licensed by the Michigan Department of Community Health and meet or exceed national guidelines.

North Central offers students four programs in the Allied Health field:

1. **The Associate of Applied Science degree (Program Code 253).** Designed to prepare students to function at an advanced level for pre-hospital emergency support services. Successful graduates are eligible to sit for the National Registry Exam which opens employment opportunities in 32 states in the pre-hospital field of EMS, public safety, and fire rescue. Graduates work in the emergency departments of hospitals and free-standing clinics, and work as safety coordinators for industrial plants. Students are expected to complete a rigorous course of study and to meet minimum requirements established by the Michigan Department of Community Health. This program also requires that students commit time beyond that spent in the classroom to complete program requirements and expectations. To obtain State of Michigan licensure in this field, an individual must be at least 18 years of age.

2. **EMS/Paramedic Certificate (Program Code 153).** Admission to the College is required, assessment testing is required, and financial aid may be available. Successful graduates are eligible sit for the National Registry Exam which opens opportunities in 32 states in the pre-hospital field of EMS, public safety, and fire rescue. Graduates work in the emergency departments of hospitals and free-standing clinics, and work as safety coordinators for industrial plants. EMS 120’s curriculum meets the requirement to pursue further licensing development to become an EMT-Specialist, as well as the initial requirements for the beginning series of the Paramedic Program (EMS 120, EMS 130, EMS 220, EMS 230, EMS 270).

3. **EMS Certificate of Development (Program Code 152).** Admission to the College is required, assessment testing is required, and financial aid may be available. This Certificate of Development allows the student to meet federal guidelines to qualify for financial aid. The student will be eligible to sit for the National Registry Exam and, upon successful completion, be licensed as a Basic Emergency Medical Technician in the pre-hospital field of EMS, public safety, and fire rescue in as many as 32 states.

4. **Emergency Medical Technician course (Program Code 053).** Admission to the College is required; however, no assessment testing is required and students do not qualify for financial aid. The student will be eligible to sit for the National Registry Exam and, upon successful completion, be licensed as a Basic Emergency Medical Technician in the pre-hospital field of EMS, public safety, and fire rescue in as many as 32 states.

**Application Procedure for EMS/Paramedic Students**
Students must complete an Application for Admission to the College as well as a separate EMS/Paramedic Program Application that should be sent to the Director of Allied Health. All transcripts should be sent to and received by the Registrar at North Central prior to entry into the program.

A candidate’s signature on the program application authorizes a criminal background check; students may be denied admission to the program based on the results of this check. In addition, a student who has been convicted of a felony or is on probation may not be eligible to take the licensure examination. Contact the Michigan Department of Community Health for more information regarding this policy.
Students interested in the EMS/Paramedic program are encouraged to contact the Director of Allied Health as soon as possible for specific assistance with both the admissions process and with individual course counseling.

Admission to the Emergency Medical Service/Paramedic program (program codes 153 and 253) is competitive, and there is no guarantee of admission. The top candidates are chosen by an Admissions Committee in the fall preceding each January entry date. Because of the nature of this program, in addition to the general admission requirements of the College, applicants will be ranked according to the system outlined below. Only the top 15 candidates will be admitted to the program.

Applicants should submit applications by October 1 of the year prior to their anticipated January entry.

Students are ranked on the basis of:

- Successful completion of EMS 110 (or proof of a valid EMT-Basic license);
- COMPASS testing (Reading, Math, and Writing, or ACT) results, or
- Placement into college courses (must place into at least ENG 111 or above and MTH 096/106 or above) (official transcripts reflecting coursework from other institutions must be submitted before the application deadline);
- Relevant work and/or volunteer experience (relevancy determined by Committee).

Admission requirements reflect the College's commitment to equal opportunity and treatment of students. The EMS/Paramedic program is very rigorous and demanding. A good state of physical and emotional health is necessary. Interested students are encouraged to consult the North Central Michigan College EMS Student Handbook for a concise statement of the functional abilities required for training and employment in this profession. Once accepted, students are required to:

- Submit a comprehensive Medical History form completed by a physician;
- Submit proof of the following immunizations (or alternate proof as indicated):
  - negative tuberculin test annually (or negative chest x-ray in case of positive skin test);
  - proof of Hepatitis B immunization (or titre);
  - proof of varicella immunization (or titre);
  - proof of measles, mumps, rubella immunization (or titre).
- Keep all required immunizations up to date for the duration of the EMS/Paramedic program;
- Maintain current health insurance (or if uninsured, contact Student Services for information on health insurance plans for college students) for the duration of the EMS/Paramedic program;
- Maintain current Basic Life Support for Healthcare Providers status.

Financial Aid

One of the most important investments anyone can make is a college education. North Central Michigan College is committed to providing qualified students with financial aid programs to assist them in achieving their educational goals.

Eligibility for Financial Aid

Eligibility requirements vary from program to program. Financial aid awards are determined and disbursed in compliance with established federal, state and institutional requirements and guidelines. Students must also adhere to all College policies and procedures. Students must apply for aid each academic year they wish to receive consideration. All criteria, funding and program availability are subject to change without notice. Students may also access the Department of Education’s web site, www.studentaid.ed.gov, and the College’s website, www.ncmich.edu, for information on basic eligibility requirements and federal aid programs.

Selection of Recipients

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Students are selected to receive financial aid based on eligibility, deadlines and maintaining satisfactory academic progress. North Central Michigan College awards financial aid in the following order: 1) grants; 2) scholarships; 3) work-study; 4) loans. The Financial Aid office determines the type and amount of each award. The type and amount of award are based on a variety of factors including financial need, academic progress, outside resources, class attendance, enrollment status, dependency status, program limitations and the availability of funds. When funds are limited, awards may be granted to applicants who meet all requirements and have a complete financial aid file by May 1.

Financial Need
Financial aid programs are designed to supplement student and family resources. The student and family have the primary responsibility for financing a college education. There are two basic categories of financial aid: need-based and non-need based. Need-based aid uses a federal needs analysis formula to determine a family’s financial strength or family contribution and eligibility for a program. The formula uses the information from the student and the parent, if required, from the Free Application for Federal Student Aid (FAFSA). The formula calculates the Expected Family Contribution (EFC) which is used to calculate the amount of each student’s aid package. Each student application is reviewed and aid is awarded based on the student’s eligibility, funding availability and program regulations. Need-based aid programs include federal and state grants, loans and work-study programs and some scholarship programs. Most aid awarded is need-based. Some students are not eligible for need-based assistance. Non-need based aid programs do not use a family contribution as an eligibility criterion. These programs use other criteria such as grade point average or a specific program of study. Non-need based programs are usually private scholarships.

Cost of Attendance for Financial Aid
The College sets cost of attendance allowances using rules established by the federal government. The cost figures below reflect reasonable book, travel, room and board and personal allowances, as well as average tuition and fee charges for a student enrolled in courses totaling 26 credit hours over two semesters.

Full-Time Student Cost of Attendance*

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<tr>
<th></th>
<th>Emmet County resident</th>
<th>Resident of other Michigan counties</th>
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<tr>
<td>Tuition and Fees</td>
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<td>Books and Supplies</td>
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<td>Transportation</td>
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<tr>
<td>Personal</td>
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<tr>
<td>Room and Board</td>
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</tr>
<tr>
<td>Total</td>
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</tr>
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*Figures are based on 2009-10 academic year costs and subject to adjustments due to changes in law and Board of Trustees policy. These figures are used solely for determining financial aid and are not charges billed to students. Residence Hall students are charged a single ($2,045) or double ($1,465) room rate per semester.

Academic Qualifications
To receive federal and state aid, a student must be qualified to study at the post-secondary level. A student qualifies academically if he/she has the following:
- A high school diploma; or
- A recognized equivalent of a high school diploma, typically a general education development (GED) certificate; or
- Completed home schooling; or
- Passed a Department of Education-approved Ability to Benefit test.

The College administers the COMPASS test to determine ability to benefit and course placement. Passing scores are determined by the Department of Education. The GED is offered through the Petoskey and Charlevoix Michigan Works! offices. A student enrolled in a secondary school is not eligible for aid even if simultaneously enrolled in an eligible postsecondary program.
**Enrollment Status and Frequency of Award Payments**
Each semester, eligibility and award amounts are finalized by reviewing enrollment status and other program requirements. Full-time enrollment is 12 credit hours and above; three-quarter time enrollment is 9 to 11 credit hours; half-time enrollment is 6 to 8 credit hours; and less-than-half-time enrollment is 5 or fewer credit hours. Program eligibility requirements and payments can vary depending on enrollment status. Financial aid payments are applied each semester of enrollment during the academic year. The final aid award is based on enrollment after the schedule adjustment (refund) period is over. Financial aid balance checks for aid that exceeded tuition, fees and books are issued once a semester and mailed to the student.

**Attendance at Multiple Institutions**
Students may not receive financial aid from two institutions concurrently. Students are responsible for any over-awards and will not be eligible for further aid until any funds are repaid.

**Guest Students**
Students who are enrolled at North Central Michigan College as guest students are not eligible for federal financial aid or North Central Michigan College Foundation scholarships. A guest student is defined as someone with a home institution other than North Central where the student is pursuing his/her education credentials.

**Study Abroad**
Students may be eligible for federal assistance for attending a study-abroad program that is approved for credit by North Central Michigan College. Contact the Financial Aid office.

**Student Rights and Responsibilities**
Students have the right to obtain information pertaining to financial aid programs available through the College and to discuss information with a financial aid staff member regarding the student’s application, record, award or extenuating circumstances regarding policies that may affect the student’s eligibility. Students have the right to appeal in writing any decisions made regarding the award application or package. All student information is confidential and is subject to FERPA guidelines.

Financial aid applicants and recipients are expected to review financial aid requirements and follow the policies and procedures established by the College, the Financial Aid Office and the financial aid programs. Financial aid guidelines, rules, requirements and consumer disclosures are found on the federal website at www.studentaid.ed.gov, the College website, www.ncmich.edu, in the College catalog and in materials sent to student aid applicants and recipients. Materials sent to students from the Financial Aid Office or its service providers may contain information regarding requirements. Students must respond immediately to all requests for information. It is the student’s responsibility to read and become familiar with policies and procedures and respond to all mailings concerning financial aid. Failure to do so does not excuse a student from the requirements or policies necessary in administering aid programs. All award and eligibility requirements are subject to change without notice.

**Withdrawals and Refunds**
The refund schedule dates and percentages are printed in the Schedule of Classes each semester. A student’s financial aid award is based on enrollment after the schedule adjustment period is over. Withdrawing from courses can affect a student’s academic progress and eligibility for financial aid. Refund and withdrawal procedures are described in the Registration and Payment section in this catalog.

**Complete Withdrawals and Return of Title IV Funds**
Federal financial aid recipients who withdraw or walk away from all of their classes before completing 60 percent of a semester are subject to the Federal Return of Title IV Funds policy.

This federal policy determines the amount of federal aid a student earned based on the amount of days the student attended during the semester. If the calculation determines a repayment is due, the student’s federal aid must be reduced and the student is required to repay both the federal Title IV financial aid programs and the College for the amounts returned to the federal programs. Title IV programs include Federal Pell Grants, Academic Competitiveness Grants, Federal Supplemental Educational Opportunity Grants and Federal Direct Stafford Loans.
The requirements for the Federal Student Aid programs when a student withdraws are separate from the College’s refund policy. Therefore, the student may also owe funds to the College to cover unpaid institutional charges.

Students will be ineligible for future financial aid at any college or university if unearned funds are not repaid to the U.S. Department of Education. Contact the Financial Aid office for current Federal Return of Title IV Funds schedules and examples before completely withdrawing from classes.

Application Process
Students must apply for financial aid each academic year to be considered for aid. Although applications are processed year-round, students are advised to apply for financial aid as early as possible to receive notification of eligibility before tuition payments are due. File in the early spring for the next academic year. The FAFSA is available after January 1 for the next academic year. The academic year consists of summer, fall and winter semesters.

Financial Aid Steps
Follow the steps and instructions below for processing:

1. Complete North Central’s free online Application for Admission at www.ncmich.edu. Students must be pursuing a degree or certificate program to be eligible for aid. A student must be admitted to the College before an award can be made. Guest students are not eligible to receive financial aid.

2. Apply for a Federal PIN. To access and correct information online, the student and the parent, if their information is required for financial aid, will need a PIN. Request a PIN by going to www.pin.ed.gov

3. Complete the Free Application for Federal Student Aid (FAFSA) or Renewal Application online www.fafsa.ed.gov or by mail. Filing online is recommended. To obtain a paper application, visit www.federalstudentaid.ed.gov.

4. List North Central Michigan College as one of the student’s college choices on the FAFSA by using the College’s code, 002299. This permits the Financial Aid office to access financial aid results electronically. If transferring mid-year, indicate the North Central Michigan College code along with the transfer institution code on the FAFSA.
   • Approximately one week after the FAFSA is submitted via the Internet or four weeks after a paper application is submitted, the student will receive a Student Aid Report (SAR). The SAR recaps the information submitted on the FAFSA. Review the information for accuracy and submit any changes online or to the Financial Aid office.
   • If the student provided an e-mail address on the FAFSA, the Federal Processor will communicate with the student via e-mail. If no e-mail address was provided, correspondence will be by mail.

5. North Central Michigan College will request additional documents if:
   • The student is selected for verification. The student will be required to submit income documentation and a verification worksheet. The SAR will contain a message if the student has been selected for this process.
   • Other information is needed to establish eligibility or to verify application information.

6. Respond immediately to all requests for information. Application processing is stopped until the student’s file is complete.

7. Once the student’s file is complete, it will be reviewed and eligibility will be determined. Files are reviewed in the order completed. Review time immediately before the semester begins is a minimum of two weeks. All students are notified in writing of their eligibility.

8. Inform the Financial Aid office of changes in family or financial circumstances, such as loss of employment, death or disability of a family wage earner, divorce or separation. A re-evaluation of financial aid eligibility may occur.

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**North Central Michigan College Satisfactory Academic Progress Policy**

In addition to meeting individual financial aid program requirements, a student must make satisfactory academic progress toward completing a degree or certificate program to receive aid. The North Central Michigan College Academic Progress Policy applies to all students who receive financial aid from any financial aid program administered by the College, unless exempt by the program. Federal regulations require that colleges review all enrollment periods whether or not aid was received.

Satisfactory Academic Progress is monitored at the completion of each semester of enrollment.

**ELIGIBILITY REQUIREMENTS**

A student must meet all three of the following requirements:

- **Minimum grade point average (GPA) requirement:**
  The student must have a minimum 2.0 semester GPA to be eligible for financial aid for the following semester; and

- **Minimum completion factor requirement:**
  The student must successfully complete a minimum of 67% of credit hours registered for each semester. Successful credit hours completed include all grades recorded on the transcript of 4.0 through 1.0. When calculating completion factor the following designations will be considered as unsuccessful and non-completion of the class: Incompletes (I), 0.0 grade (E), withdrawals (W), audits (AU), and repeated courses (R). And

- **Maximum time to complete Degree (150% Rule):**
  The student may not attempt more than 90 credit hours or 150% of the official North Central Michigan College academic program requirements. Aid eligibility concludes after this time frame, pending mitigating circumstances. Attempted credit hours include: credits transferred from another college; incompletes; 0.0 grade (E); withdrawals; audits; and repeated courses.

**PROBATION**

A financial aid recipient who does not meet the eligibility requirements will be placed on a semester of probationary financial aid to move toward acceptable GPA and/or completion rates. Students who fail to make satisfactory academic progress after the probationary period will become ineligible and have their financial aid withdrawn until they meet the standard or have an acceptable appeal. The College reserves the right to deny loans to students who are on probation or are not making acceptable progress toward an educational goal.

**REINSTATEMENT**

With the exception of the 150% Rule, a student may be reinstated after meeting one of the following conditions. (Classes taken at institutions other than North Central are not considered for reinstatement purposes.)

- The student has taken, without funding from the financial aid office, at least six credit hours and has passed those six credit hours with a grade of “C” or better. The student will be given probationary aid for the next semester the student attends North Central.
- The student has taken, without funding from the financial aid office, enough credit hours to meet the GPA and completion rate requirements. The student will be reinstated without probation.

**APPEALS**

A student whose financial aid has been terminated may appeal only in writing to the Director of Financial Aid. The written appeal must explain any mitigating or extenuating circumstances and include appropriate documentation. Acceptable documentation includes letters from a physician, attorney, social service agency, parole officer, or an obituary notice, divorce decree and/or academic records. Appeals can result in a) denial of
reinstatement, b) reinstatement of the student’s eligibility, or c) a probationary period. The result of an appeal will be recorded and kept in the student’s financial aid file.

NOTE: As of Summer 2010 Semester, this Satisfactory Academic Progress Policy supersedes any previous policies.

Financial Aid Programs

GRANTS offered at North Central are funds that do not have to be repaid. Grants are primarily based on demonstrated need and are developed for students who do not possess a bachelor’s degree. Students apply using the FAFSA.

Federal Pell Grants:
A federal award based on exceptional need. Awards range from $486 to $5,350 (based on 2009-2010 award year). Awards are based on enrollment status from full- to less than half-time depending on individual eligibility.

Federal Supplemental Educational Opportunity Grants:
A federal award based on exceptional financial need. Priority is given to Pell grant recipients. The award amount is determined by the College based on funds available.

Academic Competitiveness Grant:
A federal award based on exceptional need and completion of a rigorous high school program of study. An eligible recipient must have graduated from high school after January 1, 2005, be a Pell Grant recipient, and a first- or second-year undergraduate student. Award amounts are $750 for first-year students and $1,300 for second-year students.

Michigan Educational Opportunity Grants:
The State of Michigan grant was not funded in the 2009-2010 award year. Funding for the 2010-2011 award year has not yet been determined.

Michigan Adult Part-Time Grant:
The State of Michigan grant was not funded in the 2009-2010 award year. Funding for the 2010-2011 award year has not yet been determined.

Michigan Tuition Incentive Program:
A State award that provides for tuition and fees at the resident college rate to students who are under age 20, are high school graduates, or have earned a GED. The Michigan Department of Treasury, through Family Independence Agency Medicaid records, certifies eligibility for each recipient. Students must enroll in at least six credit hours per semester.

SCHOLARSHIPS are funds that do not have to be repaid. They are based primarily on academic achievement and may or may not be based on need. Outside/private scholarships have deadlines established each academic year.

Michigan Competitive Scholarship:
A State program for students who achieve required scores on the ACT exam and have financial need. The Michigan Department of Treasury determines eligibility and the award amount.

Michigan Promise Scholarship:
The State of Michigan grant was not funded in the 2009-2010 award year. Funding for the 2010-2011 award year has not yet been determined.

North Central Michigan College Presidential Scholarship:
A graduate from each public and private high school and one home-schooled student within our service area is eligible to receive the Presidential Scholarship. To be considered, a student shall be either a valedictorian, salutatorian, or have a 3.5 overall high school grade point average; meet pre-established placement scores; and apply.
for admission to North Central by early spring. The award is for full-time tuition and fees for two academic years (Fall and Winter semesters). The award is renewed each semester the student maintains eligibility.

**North Central Michigan College Foundation Scholarships:**
Through generous donations from the community, the College makes available a variety of scholarships. Many have a need component. Students should file a FAFSA along with the North Central Michigan College Scholarship application found on line at [www.ncmich.edu](http://www.ncmich.edu).

**STUDENT EMPLOYMENT**
Students file the FAFSA to be considered for Federal or State work study. Work study is need-based aid. Students receive a paycheck for the hours they work. The maximum amount a student may earn is specified. Students can learn of job openings through the Financial Aid office.

**Federal Work Study:**
Provides up to 20 hours per week of primarily on-campus employment to students with financial need. Limited community service positions are available off-campus.

**STUDENT LOANS** are borrowed money and require repayment with interest. Repayment begins six months after a student ceases to be enrolled half-time. Students are required to file for financial aid using the FAFSA before a loan request can be considered. Students must be enrolled at least half-time and be making academic progress to receive loan consideration. Students should borrow only what they realistically can repay. The approved loan amount is determined by the student’s financial need, other financial aid and resources, program limits and the loan amount requested. The school, not the lender, determines the eligibility for a federal student loan. The College can refuse to certify a loan application or can certify a loan for an amount less than the student would otherwise be eligible for if the College documents the reason for its action and explains the reason in writing. The College’s decision is final and cannot be appealed to the federal government. Students are encouraged to access web information at [www.studentaid.ed.gov](http://www.studentaid.ed.gov) before taking out a loan. Academic history will be considered, regardless of overall GPA. Excessive withdrawals and/or incomplete grades could result in denial of funding. Previous defaults are not considered for loan funding. Students should contact the Financial Aid office for additional information and the steps to request a loan.

**Federal Direct Stafford Loans:**
For those students with financial need, the government pays the interest during school periods with a Federal Direct Stafford Loan. If eligible, a student may receive loan funds beyond the subsidized loan limit or, if he/she does not have a financial need, through an Federal Direct unsubsidized Stafford Loan. Loan maximums are set by the government but may be limited because of student eligibility. All students receiving subsidized and unsubsidized Federal Direct Stafford Loans participate in mandatory entrance and exit counseling on-line. The counseling takes place prior to the first disbursement of a loan. On-line loan counseling is accessed through the College website. Loan counseling presents information regarding the responsibilities of indebtedness, repayment options and the consequences of failing to repay a loan.

**Federal Direct PLUS Loans:**
North Central requires a student to file a FAFSA to be considered for this non-need based loan. The Federal Direct PLUS Loan is for parents who want to borrow money to help pay for their dependent child’s education. This loan is based on the parents’ credit rating.

**Federal Student Loan Deferment:**
Deferment is a period of time during repayment of a Federal Direct Stafford Loan in which the borrower, upon meeting certain conditions, is not required to make payments. The most typical deferment conditions are continuing study at an approved school with at least half-time enrollment, unemployment, and economic hardship. Students must apply for deferment by contacting their lender.
Other Resources:

Veterans:
Veterans and veterans’ dependents are encouraged to contact the Financial Aid office for information about VA educational benefits. The VA Certifying Official is part of the Financial Aid staff and assists students in applying for VA educational benefits. The student must request certification each semester with the Financial Aid Office-VA Certifying Official. Students are required to make satisfactory academic progress to continue receiving benefits. All changes of address, program of study and withdrawals from courses must be reported immediately to the VA Certifying Official. For more information visit www.gibill.va.gov.

Women’s Resource Center Funds:
The Women’s Resource Center has limited funds available to students who are single parents, displaced homemakers and those in nontraditional academic programs for their gender. FAFSA filing is required.

Little Traverse Bay Bands of Odawa Indians:
Contact the Education department at 231-242-1492 for resources available to LTBB members.

Michigan Indian Tuition Waiver:
Michigan residents who are North American Indian and are certified one-quarter blood quantum by their tribal association may be eligible for tuition assistance funding. A Michigan Indian Tuition Waiver Application from the Inter-Tribal Council of Michigan must be completed. Call 800-562-4957.

Michigan Works!:
Funds are available for students in vocational programs who are economically disadvantaged, long-term unemployed or dislocated workers. Eligible students may receive funding for tuition, fees, books, supplies and mileage. For more information, students should contact their regional Michigan Works! office.

Petoskey-Harbor Springs Area Community Foundation:
Scholarship funds for graduating high school seniors or graduates from Emmet County. Contact the Foundation at 231-348-5820 for current scholarships and deadline dates.

T.E.A.C.H. Scholarships:
State funds are available for tuition, fees, books, and stipends for students currently working in participating early childhood education programs. For more information visit www.mi4c.org/teach/.

Registration and Payment

Registration is completed on-line using North Central’s web registration module. A student is responsible for all activity on his/her student record. Proof of transactions must be maintained by the student and provided to the College for appeals. A copy of the confirmation screen verifying added/dropped course(s) or a dated printout of the student’s schedule can serve as proof. For complete registration information, including course schedules, log on to www.ncmich.edu.

On-Line Course Offerings
On-line courses enable students to earn credits from home or work using a computer and the Internet. These courses have been developed by North Central faculty to provide a high-quality learning experience equivalent to the traditional classroom experience. International students may not enroll in more than one on-line course per semester.

On-Line Course Registration

North Central students registering for North Central on-line courses:
The procedures for admission and enrollment are the same as for traditional courses.
North Central students registering for on-line courses through the MCCVLC:
The Michigan Community College Virtual Learning Collaborative (MCCVLC) makes it possible for students to
take on-line classes from more than 20 other community colleges in Michigan. To find out more or to register for
on-line classes go to the MCCVLC website at www.mccvlc.org. NOTE: North Central students should not register
for North Central on-line courses through the MCCVLC website.

MCCVLC Students Taking North Central on-line classes:
Students from other Michigan community colleges may take North Central’s on-line courses by registering at the
MCCVLC website, www.mccvlc.org. To take such on-line courses, a student needs to be registered with the
community college that serves his/her region in Michigan.

Hybrid Course Offerings
In a hybrid class, students receive a portion of their instruction in the classroom and a portion on-line. The amount
of class time varies with the class but, in all cases, the amount of time spent in class with the instructor will be
significantly less than in conventional classes. More than half of the instructional content will be delivered on line.
Hybrid classes are designated in the course schedule by “HY” plus the section number.

Classes that deliver instructional content on-line are not for everyone. Students taking a hybrid or fully on-line class
should carefully assess their ability to learn in this environment. Ask yourself questions like these:

- Can I navigate the Internet with ease?
- Am I comfortable reading 30 minutes or more at a time on line?
- Can I commit significant amounts of time, up to 10 hours per week, to on-line study?
- Am I able to study and complete assignments on time on my own?
- Do I express myself well in writing?
- Can I type 30 words per minute or more with accuracy?

Residency for Tuition Purposes
North Central recognizes three residency groupings for purposes of levying tuition rates: in-district (Emmet County
residents), in-state (Michigan residents who live outside of Emmet County) and out-of-state (residents of other
states). For residency determination, a student must have resided within the State of Michigan or in Emmet County
for at least six months immediately prior to the first day of classes of the semester in which he/she plans to enroll.
As part of the enrollment process, all students must certify their residency status. The College verifies a student’s
residency each fall semester. The College reserves the right to require residency documentation at any time.
Students who change their legal residence must complete an Application for Residency Change form available in
Student Services. The form must be accompanied by documentation proving legal residency. Proof can be a
Michigan driver’s license, rent receipt or agreement, property tax receipt, voter registration card, or an identification
card from a Secretary of State office. The College reserves the right to make the final decision on residency
eligibility. Students who are in the United States under various non-immigrant visa categories are not eligible for in-
district or in-state residency status for tuition purposes. A Residency Review Committee consisting of the Dean of
Student Services and Dean of Finance and Facilities will hear appeals of residency classification as established by
the College. Any adjustment made in tuition because of a change in residency status will not be retroactive.

Tuition and Fees
The Board of Trustees establishes tuition and fees. Tuition, fees, refunds and deposits are subject to change, at any
time, at the discretion of the Board of Trustees. The Board of Trustees typically establishes tuition rates for the
upcoming academic year each spring. For current rates, see the College website, www.ncmich.edu, the course
schedule or contact Student Services or the Business Office.

Payment of Tuition and Fees
Payment of tuition and fees is due at the time of registration unless the student has financial aid that has been
certified by the Financial Aid office of North Central Michigan College. Full payment can be made on-line using a
credit card or in person in the Business Office using a credit card, check or cash. North Central also offers a deferred
payment plan. It is a tuition management plan that provides a low-cost option for budgeting tuition and other
education expenses. To learn more about and enroll in the plan on-line, check the College website, www.ncmich.edu under Paying for College. During early registration periods prior to each semester, students can register with payment deferred until a specific published date. The College reserves the right to drop a student from all classes by the published due date unless full payment is made, the student has certified financial aid or the student has signed up for the deferred payment plan. Registration is completed on-line using North Central’s web registration module. A student is responsible for all activity on his/her student record. Proof of transactions must be maintained by the student and provided to the College for appeals. A copy of the confirmation screen verifying added/dropped course(s) or a dated printout of the student’s schedule can serve as proof. For complete registration information, including course schedules, log on to www.ncmich.edu.

College Refund Policy
Under specific conditions, North Central Michigan College grants refunds for tuition and course fees to students who officially withdraw from the College or reduce contact hours (per refund schedule). If the student receives assistance from College funds or other sources managed by the College, the refund is returned to the appropriate scholarship or grant fund. Refunds for a student with a Guaranteed Student Loan who withdraws from the College will be sent to the student's lending institution. If North Central cancels a course, 100 percent of the tuition and fees will be refunded.

Refund Schedule
Refunds will be made according to the following schedule:

1. Fall and Winter semesters:
   Starting with the first day of the semester, 90 percent of tuition and fees will be refunded until the second Friday. After that time, there will be no refund.

2. Summer Session:
   The refund schedule applies to the first Friday rather than the second Friday.

3. Short Semester courses (fewer than 15 weeks):
   100 percent of tuition and fees will be refunded if the course is dropped prior to the first class meeting. After that date, there will be no refund.

Appeals for refunds after the add/drop deadline must be made in writing to the Registrar at North Central, 1515 Howard Street, Petoskey, MI 49770. A Refund Appeals Form, available in the Student Services office must be completed and submitted for an appeal to be reviewed. Requests for refunds are accepted for the current semester only and must be submitted by the last day to withdraw for the current semester.

Senior Citizen Tuition Waiver
Emmet County senior citizens, defined as residents age 60 or older, will be granted tuition-free enrollment subject to the following conditions:
• Minimum class size must be attained without considering Emmet County senior citizen enrollment.
• Senior citizens must meet regular course entry requirements.
• Maximum class size shall not be exceeded by the enrollment of senior citizens.
• Senior citizens must pay all regular fees, including registration, course, laboratory, technology, building and energy conservation, activity, and parking.

Course/College Withdrawal and Change of Schedule
Students may withdraw from a class through the 14th week of class for the fall and winter semesters and through the sixth week for the summer semester. The web registration module may be used for any schedule changes. Students who do not have Internet access may use computers on the College campus. A grade of “W” is assigned on the student's transcript for that class. Students who stop attending classes but do not officially withdraw receive the grade of “E” at the end of the semester.
Cancellation of Classes
Cancellation of classes on the Petoskey campus because of severe weather or other conditions will be announced by the College through area radio and TV stations and text messaging, and will be posted on the College website. Day class cancellation will normally be announced by 6:30 a.m. Evening class cancellation will normally be announced by 5 p.m.

Cancellation of off-campus classes because of severe weather will be regulated by the public school system hosting the College courses. For example, if Cheboygan Public Schools are closed; North Central classes held in Cheboygan are cancelled. Students should be aware of the status of the school system where their class is held and listen to media announcements for updates on school cancellations.

Campus cancellations are posted on the College website, www.ncmich.edu, and on campus via video display monitors.

Directed and Independent Study Policy
Directed and Independent Study are two alternate means to earn credit for a course. During a semester or session when a course is not on the class schedule, a Directed Study could be arranged on a one-on-one basis with an assigned faculty member. An Independent Study involves an advanced topic not covered in any North Central course, pursued on an individual basis by a student who possesses sufficient knowledge in that subject area. Directed or Independent Study is begun and completed within the official dates of the semester for which it is requested, but students and faculty members do not meet for a set number of hours in a classroom setting. Students are, however, required to spend an amount of time equivalent to that spent in a traditional course in order to satisfactorily earn credit. An additional fee of $150 (beyond tuition) is assigned to all Directed/Independent Study courses. This fee is in addition to tuition and any other fees that may be assigned to the course. Lab courses are not normally available for Directed or Independent Study.

To secure a Directed/Independent Study course, a student must get the permission of a faculty member who usually teaches the course and complete a Directed/Independent Study Request Form available from the instructor. The form, which must have a course syllabus attached, must be signed by the instructor, the academic associate dean and the Dean of Instruction and Student Success. No forms will be accepted after the official drop/add period.

Student Records
North Central houses permanent records and official transcripts in the Student Services office. All final course grades are recorded on an official transcript of academic credit which is considered to be a complete and true record of all academic coursework attempted and/or completed at North Central.

All grades and status symbols submitted and recorded on an official college transcript will be considered final and no changes will be made after one calendar year. Any perceived clerical error must be brought to the attention of the Dean of Student Services or Registrar during this one-year period.

Policy on Student Records and Information
Pursuant to the Family Educational Rights and Privacy Act of 1974, students at North Central Michigan College are entitled to review records, files, documents and other materials containing information directly related to them which are maintained by the College. In accordance with federal regulations, students may request a hearing to challenge the content of educational records to ensure that the records are not inaccurate, misleading or otherwise in violation of their rights. A student may insert in his or her records a written explanation in regard to the contents of such records if suggested corrections or deletions are not made by the College. Access and review are subject to the following conditions:
1. The College has 45 days to comply with a student's written request to review his or her records.
2. All information declared confidential by the Act or excluded from the definition of "educational records" in the Act is not available for inspection; and
3. After reviewing records, a student may request the unit maintaining the record to remove or modify information the student believes is misleading, inaccurate or inappropriate. If the request is refused, the student may insert in the records a written explanation in regard to the contents objected to or the student may file an appeal with the office.
The Act further states that certain information can be construed to be directory information which is available to the public. These are the items the College declares to be directory information available to the public: name, address, telephone number, full/part-time status, degree/honors and dates earned, certificates and dates earned, primary field of study, dates of attendance and whether or not the student is currently enrolled. A student has the right to inform the College that any or all of the above information should not be released without his/her prior consent. Students who wish to restrict the release of this information must complete a written request to that effect at the Student Services office. Any information other than the items listed previously will not be released by the College without the student's specific written permission except as provided by law.

To improve the instruction offered at North Central 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, the College will use student Social Security numbers 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 require North Central and the State of Michigan to assess the effectiveness of vocational and technical education programs aimed at training, placing and retaining 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 to the College. The College plans to use students’ Social Security numbers to gain access to individual wage records and compile required WIA and Perkins Act reports. These reports will help the College improve vocational and technical education programs. By improving programs, the College will better serve employers and employees. Student wage record information is maintained confidentially, based on SSN, by the State of Michigan. Neither the College nor the State of Michigan will disclose individual SSN or wage record data to any person or entity unless legally permitted to do so. Any personally identifying wage record data will be destroyed by the College as soon as all required statistical analyses have been performed, or when the information is no longer needed, whichever date comes first.

Certificate and Degree Policy:

Sunset Clause
North Central Michigan College promotes relevant and timely learning. Therefore, program requirements to meet certificates and degrees are revised and changed on a regular basis. To that end, students intending to graduate from North Central Michigan College must meet the graduation requirements from a catalog effective during the seven academic years prior to their date of graduation. For example, a student who intends to graduate at the end of the 2010-11 academic year must meet the graduation requirements from a catalog effective no earlier than Fall 2004.

Student Name Changes
A student requesting a name change is required to submit to Student Services a copy of the legal document authorizing such change (e.g., marriage license, divorce decree, court order). A current driver’s license reflecting the change may also be accepted. Questions regarding this policy should be directed to the Dean of Student Services.

Record Suspension (Hold) Policy
North Central Michigan College may place a hold on a student's record for a variety of reasons. A hold indicates that records cannot be released or a registration cannot be processed. A hold can be placed for several reasons and by several departments:

Academic:
A hold may be placed at the request of the Dean of Student Services against the enrollment of a student for failure to maintain the standards outlined in the academic standards policy, detailed in the Student Handbook.

Address:
A hold will be placed if College mail sent to the address on record for a student is returned by the U.S. Postal Service.
Administrative:
A hold may be placed at the request of the Dean of Student Services against the enrollment of a student who has been suspended or expelled for disciplinary reasons. This hold may also be used against the enrollment of a student who has left the College because of psychological or medical problems. A return to the College is pending satisfactory demonstration that such problems have been resolved.

Advising:
A hold may be placed on a new student’s record which indicates a meeting with an advisor or counselor prior to registering for classes is required.

Financial:
A hold may be placed at the request of the Business Office against the enrollment of a student or the release of official transcripts when the student has failed to discharge his/her financial obligations to the College.

Learning Support Services:
A hold will be placed on degree- or certificate-seeking students who have not fulfilled placement testing requirements.

Library Resources:
A hold may be placed by the Library against the enrollment of a student who has failed to return a library resource or who has failed to pay fines or charges owed to the Library.

Grading System
Semester grade reports are posted to the student’s on-line records. Grade point average is computed using the following table:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Honor Points per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>0.67</td>
</tr>
<tr>
<td>E</td>
<td>0.00</td>
</tr>
<tr>
<td>P/F</td>
<td>Passing (Pass-Fail only)</td>
</tr>
</tbody>
</table>

* Certain designated programs have courses taken on a pass-fail basis up to a total of 16 semester credit hours in a given program.

Status Marks (No Honor Points):
I     Incomplete
W     Withdraw
NG    No Grade submitted by instructor
AU    Audit

Each grade assigned for an hour of credit (exclusive of physical education and pass/fail courses) creates an honor point value. Total values are calculated by multiplying the number of honor points for a grade by the number of credit hours in the course.
Incomplete
A student who fails to complete all the requirements of a course because of extenuating circumstances may receive an Incomplete (I). An Incomplete is given at the discretion of the instructor and is intended to be granted only in situations where the majority of the coursework has been successfully completed. The remainder of the course requirements as determined by the instructor must be fully satisfied by the end of the next semester or the I grade will automatically be recorded as an E.

Withdrawal from Classes
A student will receive a Withdraw (W) if he/she withdraws before 5:00 pm, Friday of the 14th week during the regular semester, or before 5:00 pm, Friday of the sixth week of the summer semester. A “W” grade will appear on the official transcript without penalty. Withdrawals are completed online using North Central’s web registration module. A student is responsible for all activity on his/her student record. Proof of transactions must be maintained by the student and provided to the College for appeals. A copy of the confirmation screen verifying added/dropped course(s) or a dated printout of the student’s schedule can serve as proof.

“No Grade” and Auditing Status
The No Grade (NG) is a temporary status used only until the faculty member officially submits a grade to the Registrar. A student who wishes to attend the class sessions of a course but does not wish to receive credit for it registers as an Audit (AU). The deadline for declaring an Audit for fall or winter semester is the fifth week; for summer semester it is the third week of the semester. Courses audited cannot be counted toward graduation or financial aid requirements.

Repeating Courses for Improvement of Grade
Students may repeat courses, when available, at their own discretion in an effort to improve grades. To improve a grade, the same course must be retaken at North Central. In such cases, no additional credit will be allowed. The last grade earned will be the student's official grade for the course. Courses may be repeated no more than three times.

Note: The College is under no obligation to schedule or continue discontinued courses to make them available. Final grades and academic dishonesty penalties may be appealed according to the procedure described in the Student Handbook available at www.ncmich.edu.

Dean’s and President’s Lists
A student who has earned a letter grade in 12 or more college-level credit hours and earned a 3.5 – 3.999 grade point average for that semester is named to the Dean’s List. President’s List recognition is awarded to a student who has earned a letter grade in 12 or more college-level credit hours and earned a 4.0 grade point average for that semester. A notation of the award will be posted on the student’s transcript for that semester.

Academic Standards Policy
Admittance to North Central is a privilege which carries with it the responsibility for appropriate academic achievement. The College reserves the right to place a student on probation or suspend a student whose academic achievement is such that continued enrollment would not be in the best interest of the College or the student.

Academic Probation/Suspension Policy
A student is placed on academic probation when his/her cumulative grade point average after enrolling for six semester credit hours falls below 2.00, the minimum level considered to be in good academic standing. A student placed on academic probation will have two consecutive semesters of enrollment to bring his/her cumulative grade point average up to 2.00 or above. Failure to do so may result in academic suspension (denial of continued enrollment) for one full semester. A student readmitted after suspension will have an additional two semesters in which to achieve a 2.00 cumulative grade point average. Failure to do so will result in suspension for one calendar year.

This policy does not supersede more rigorous probation policies required for financial aid, or for continuance in College-recognized special-entry programs such as nursing. Students placed on academic probation are urged to
contact Learning Support Services for help in developing a plan for improved student success. A student on academic probation should consult his/her academic advisor or a counselor in Student Services.

**Academic Appeals**
A student notified of academic suspension who believes mitigating and unusual circumstances have contributed to the academic deficiency may appeal his/her suspension to an Academic Appeals Committee comprised of the student's academic advisor, the academic dean or associate dean and a counselor. Decisions of the committee are considered final and may include specific requirements for retention if the student is permitted to continue enrollment.

**Achieving the Dream**
North Central is one of more than 100 community colleges in 15 states and four universities in Texas that are participating in an initiative to help more college students earn the credentials they need to be successfully employed. The initiative, entitled, “Achieving the Dream: Community Colleges Count,” is concerned about student groups that have faced the most significant barriers to success. The initiative’s purpose is to increase the percentage of targeted student populations who will successfully complete developmental courses and progress to credit-bearing courses; enroll in and successfully complete gatekeeper courses; complete the courses they take with a grade of C or better; re-enroll from one semester to the next; and earn certificates and/or degrees.

**Student Outcomes Assessment**
Student outcomes assessment is the systematic collection, examination and interpretation of qualitative and quantitative data about student learning and the use of that information to document and improve student learning. The college community regularly uses assessment results to make improvements in academic programs and changes in the learning environment that will enhance student participation in the college experience.

**Types of Student Outcomes Assessment at North Central**
Several assessment tools are used:
- The COMPASS test, taken by most students when they first enroll at North Central, helps the College place students in the appropriate course levels.
- Pre- and post-testing, administered at the beginning and end of a course, seek to measure the knowledge that has been gained during the course.
- Classroom assessment, used by instructors to obtain feedback on the learning process during the course of the semester so that changes may be made prior to the end of the class. This feedback loop gives students a way to provide input into the learning experience and help the College implement positive changes.
- Program assessment used by the College to compare actual classroom work against learning. Objectives outlined in the syllabus and course descriptions.
- Assessment of the curriculum college-wide measures learning goals that fit all degree programs. The College is in the process of defining these goals. Student performance on the first of these, Communication, is currently being measured.

Student outcomes for other college-wide curriculum goals will be defined and measured as the faculty develop them.

**Student Outcomes Assessment and the Student**
Student outcomes assessment gives students a greater role in the teaching and learning process. As a result, students develop a greater interest in learning, greater awareness of the learning process and learner self-esteem. In addition, higher levels of student and faculty cooperation and success are also achieved. North Central’s instructors use the assessment process to implement changes in their classes to strengthen the teaching and learning process.

**Graduation**
Graduation from North Central Michigan College is recognized by the awarding of an Associate of Arts degree (AA), Associate of Science degree (AS), Associate of Applied Science degree (AAS), Associate of General Studies (AGS) degree, Certificate, or Certificate of Development.
Although degrees and certificates may be conferred effective the last day of any college enrollment period (fall, winter, or summer semester), commencement is held once each year on the final day of winter semester.

All degree and certificate recipients are encouraged to participate in commencement. Students who expect to qualify for their degrees by the close of any given enrollment period and wish to have their degrees conferred must complete an application for graduation available from Student Services or on-line.

A request for a degree may not be approved unless the applicant begins his/her final semester with a 2.0 cumulative grade point average and may reasonably be expected to have completed all necessary coursework satisfactorily by the date the degree is to be awarded.

To graduate with a degree, a student must complete the total number of credit hours required for the degree being sought, even if courses have been waived or competency has been demonstrated through ACT, COMPASS or CLEP testing scores.

NOTE: When transferring to another college or university, you may be required to take the courses that were waived or competency was demonstrated at North Central.

Graduation Honors
Students who have achieved a total cumulative grade point average as indicated in the table below by the beginning of their final semester may be accorded the indicated honors provided they have completed at least 40 semester letter-grade degree credits at North Central Michigan College.

<table>
<thead>
<tr>
<th>Graduation Honors</th>
<th>Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinction</td>
<td>3.50 to 3.69</td>
</tr>
<tr>
<td>High Distinction</td>
<td>3.70 to 3.89</td>
</tr>
<tr>
<td>Highest Distinction</td>
<td>3.90 to 4.00</td>
</tr>
</tbody>
</table>

Graduation honors do not apply to degrees or programs requiring fewer than 60 semester credit hours. Honors status may be changed based on the final cumulative GPA and will be posted on the student’s diploma accordingly.

Earning Multiple Credentials
The College offers a number of certificate and degree programs. Some are arranged in a sequence of progressively more extensive learning levels. In this “laddering” of programs, a certificate of development may ladder up to an associate of applied science degree.

If a student plans to be recognized for completing a certificate of development or certificate program on the way toward earning the associate of applied science degree in the same discipline, the student must apply for the lower credential a semester or more prior to the completion of the next higher level. If a student however, has simultaneously completed the requirements for an associate of applied science degree that includes all the requirements for a certificate or a certificate of development, the College will only award the degree, not the underlying certificate of development and/or certificate.

Students who are eligible for the AA or AS degree may not apply for the AGS degree.

Earning a Second Degree
A student who wishes to complete a second associate’s degree must complete at least an additional 15 credit hours or have earned a total of 75 credit hours.

A student who wishes to complete a certificate in addition to the associate’s degree must complete at least an additional 15 credit hours or have earned a total of 75 credit hours.

A student who wishes to complete a certificate of development in addition to the associate’s degree must complete at least an additional 8 credit hours or have earned a total of 68 credit hours.
A student who wishes to complete a certificate of development and a certificate in addition to the associate’s degree must complete at least an additional 23 credit hours or have earned a total of 83 credit hours.

A student who wishes to complete a certificate of development in addition to another certificate of development must complete at least an additional 8 credit hours or have earned a total of 24 credit hours. A student must meet the course requirements for each degree to receive both degrees.

Services and Policies

Services for Students

Academic Advising
The mission of the academic advising program administered by the Student Services office is to assist students in the development of meaningful educational plans. Academic advising includes help with selecting classes, developing an academic plan based on the student’s goals and assisting with adjustment to college life.

North Central students are encouraged to seek academic advice from faculty members, advisors and counselors.

All full-time members of the faculty hold scheduled office hours. Hours are posted on or near each faculty member’s office door. They may also posted on Angel. Counselors and advisors are located in Student Services. Students interested in a Career Program (Page XX) should make an appointment to speak with a faculty advisor.

Students can monitor their own progress toward completion of a declared certificate or degree via the College’s registration portal. Contact Student Services to update a program of study. Students can log in and use the navigation tools titled “Advising” and “Course Needs” to determine outstanding course work toward their goals.

Counseling Services
Licensed professional counselors, located in Student Services, are available to assist students in furthering their educational, career and personal goals. North Central’s counselors help students adjust to college life, assist with curriculum choices and provide support for those experiencing social and emotional problems that interfere with academic progress. Counselors also maintain a cooperative liaison with service agencies in the community and help students find needed services not available at the College. Counseling services are free, confidential and available in fall and winter semesters.

Career Assessment
Two assessments are available to help students select appropriate college majors and career areas: the Strong Interest Inventory (SII) and the Myers-Briggs Type Indicator© (MBTI©). Both can be completed on-line and each generally takes 30 minutes. The interpretation of test results takes place in a required session with a counselor during regular business hours. A fee is charged for each assessment.

Learning Support Services
Learning Support Services provides academic assistance to all North Central students free of charge. Services offered include tutoring for North Central classes; an open computer lab equipped with the latest software available on a walk-in basis; an assortment of study guides, textbooks and video tutorials; and assessment testing, test proctoring and study space. Select computer programs and print resources used in classes are also available. Learning Support Services is located in Room 533 of the Student and Community Resource Center. When classes are in session, LSS is open weekdays, evenings and Saturdays.

Disability Services
Any North Central student with a documented disability may obtain special needs assistance through Learning Support Services located in Room 533 of the Student and Community Resource Center. Services such as advocacy, career guidance, academic advising, personal counseling, tutoring, financial aid and special needs assistance are also available to any student who has declared an intent or has formally enrolled in an occupational certificate or degree.
program at North Central and is qualified with one or more of the following: a hidden or obvious disability, economically disadvantaged, limited English proficiency, preparing for a non-traditional career or single parent (including single pregnant women), displaced homemaker, or individual with other barriers to educational achievement. Interested students are encouraged to stop in or call 231-348-6687 for an appointment.

**Women’s Resource Center**
The Women's Resource Center of Northern Michigan (WRC), a non-college organization with offices at North Central, offers support services and financial assistance programs that provide help with such items as tuition, books, supplies and child care. The WRC also offers the Displaced Homemaker Program which provides career advising, job search skills and job placement assistance. The WRC on-campus office is located in the Learning Support Services area of the Student and Community Resource Center.

**Northwest Michigan Works!**
Another non-college resource available in Learning Support Services, Northwest Michigan Works! offers career guidance and basic skill development for adult learners. Staff members are available two days per week. For more information, call 231-348-6622.

**On-Campus Housing**
The residence hall is co-educational by suite. Each room has two beds, desks, chairs, closet space, cable TV and computer hookups. Private rooms are available for an additional fee and are dependent on supply and demand. Residence hall living is designed to provide experiences in a community with conditions conducive to academic achievement. A hall council elected by the residents provides activities and opportunities for residents along with a resident assistant on each floor and the Director of Student Activities and Campus Housing. The council, in cooperation with the hall administration, assumes responsibility for academic, social, cultural and recreational programs for residents.

**Housing Application/Contracts**
Residence hall applications and contracts are available on the North Central website through the Student and Community Portal. Students living in the residence hall are required to be registered for a minimum of 12 credit hours, purchase a meal plan, and maintain a 2.0 G.P.A.

**Student Activities**
The College encourages student activities to supplement the instructional program. Recreational, social and cultural activities add to students' enjoyment of college life and encourage personal growth and social development. Activities include the Lecture Series, intramural sports, live music, game shows and other special events.

**Student Senate**
Student Senate is the student government organization at North Central. Senate members also assist in planning a variety of student activities held throughout the year. The officers and senators of the Student Senate are elected each year. Senate meetings are held regularly during the year and are open to all who are interested. For more information, contact the Director of Student Activities and Campus Housing.

**Student Activities Fund**
Funding for student activities is derived primarily from the Student Activity Fee and is administered by the Dean of Student Services, assisted by the Director of Student Activities and Campus Housing. The Student Senate represents student interests and assists in the implementation of the programs.

**Student Clubs and Organizations**
A number of special interest clubs and organizations offer opportunities for students to broaden the scope of their educational experiences. Students are encouraged to participate in the activities sponsored by the clubs and organizations or contact any member of the Student Senate or faculty members with suggestions for forming new organizations. Membership in all organizations is open to any registered student. New student organizations are always welcome. No student club or organization may be established, conduct business, solicit funds, use College facilities, or sponsor activities unless the organization has been approved by the Student Senate and has been authorized by the Director of Student Activities and Campus Housing. Students who wish to form a student
organization or want to know more about Student Senate should contact the Student Senate office at 231-439-6310 or the Director of Student Activities and Campus Housing.

**Phi Theta Kappa**
North Central Michigan College chartered a chapter of Phi Theta Kappa, the international honor society of the two-year college, in May 1989. The Alpha Omicron Upsilon chapter is open to students who have completed at least 12 semester credit hours of coursework at North Central and who have attained a cumulative grade point average of 3.50 or above.

**Student Health and Accident Insurance**
Group health and accident insurance programs are recommended for all students. The coverage should be designed to protect the student from medical expenses resulting from accidents and illness, including those which occur off campus and during semester breaks or authorized absences, and 24-hour protection for 12 months should be available. Students are encouraged to contact their family insurance carrier. Information on insurance policies specifically designed for college students is available in Student Services.

**Internet Access**
The College requires students to use an NCMC e-mail account (MyMAIL) to conduct their financial business with the College (pay tuition, be notified of grants, grade postings, and other official College business), communicate with instructors, do research online, communicate with fellow students, and use the College's learning management system, Angel. Residence hall students have a choice of Internet access either through North Central’s high-speed Internet network connection (with restrictions on downloads deemed illegal) in their dorm rooms, or by ordering Charter Cable’s unrestricted Internet for a monthly fee (paid directly to Charter).

Wireless Internet is available on campus. Access to the Internet is also available on computers located in the North Central Library, Learning Support Services, the SCRC Concourse, and various computer labs across campus. To obtain Internet access, go to www.ncmich.edu and click on the Student and Community Portal.

A student’s use of the Internet or campus network facilities provided by the College constitutes acceptance by the student of the North Central Internet and Networking Acceptable Use Policy.

**Alumni Office**
The North Central Michigan College Foundation coordinates alumni activities and has established a directory of College alumni. Since 1960, North Central has granted more than 5,000 degrees in a wide variety of academic disciplines. Students ranging in age from 18 to 80 have graduated from North Central. They are a diverse group of people who have their experience at North Central as a common denominator. The Alumni Office is always interested in hearing from and maintaining connections with graduates. For additional information call 231-348-6621.

**NCMC Foundation**
Donations play a key role in the growth of the College. They provide an opportunity for individuals and businesses to help the College expand its services and be responsive to changing needs. The NCMC Foundation was established in 1990 to enhance opportunities for giving. Gifts may differ in size, purpose and designation, but they all have one thing in common: they make a positive difference in the quality of the College and in its ability to fulfill its mission. For additional information, call the Foundation office 231-348-6621.

**Student Rights and Responsibilities**

**Non-Discrimination Policy Statement**
This policy has been established to ensure that all employees and students of North Central Michigan College are aware of our commitment to both equal employment opportunity and equal opportunity and treatment of students. It is the policy of North Central Michigan College to offer admission, housing, employment, campus activities and financial aid without regard to race, color, national origin, religion, sex, sexual orientation, age, height, weight,
Drug-Free School Policy
1. Any student of North Central Michigan College who engages in the unlawful or unauthorized sale, possession, use or distribution of illicit drugs, hallucinogens, controlled substances, or alcohol on College property or designated College property or as any part of the College's activities is in violation of school policy regarding standards of student conduct.
2. Any such violation by a student as described above will result in disciplinary action up to and including immediate expulsion from the College and referral to appropriate authorities for prosecution.
3. All students are advised that conviction of illegal possession, misuse, sale, manufacture, distribution and related actions with respect to illicit drugs and alcohol under local, state and federal statutes can result in extensive fines, forfeiture of property, and imprisonment.
4. Information regarding the health risks associated with the use of illicit drugs and the abuse of alcohol is available from Student Services.
5. Students interested in seeking alcohol/substance abuse counseling should contact a counselor in the Student Services office for referral to one of several community agencies.

Sexual Harassment Policy
It is the policy of North Central Michigan College to maintain a place of employment and education that is free of harassment in general and especially harassment that is sexual in nature. Sexual harassment, as summarized from E.E.O.C. guidelines, includes unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct or communications of a sexual nature when:

1. Submission to such conduct is made whether explicitly or implicitly a term or condition of an individual’s employment or grade; or
2. Submission to or rejection of such conduct is made either explicitly or implicitly a term or condition of an individual’s employment or grade; or
3. Such conduct has the purpose or effect of unreasonably interfering with an individual’s work performance or creating an intimidating, hostile, or offensive working or educational environment.

The purpose of this policy is to communicate to all employees and students what constitutes sexual harassment in accordance with E.E.O.C. guidelines, to reassure employees and students that sexual harassment will not be tolerated and to provide a procedure to investigate and resolve sexual harassment complaints. This policy applies to all employees and students and will be administered by the Dean of Finance and Facilities.

Procedure:
1. An employee or student who feels he or she has been sexually harassed, as described above, by a superior, subordinate, or peer should contact the Dean of Finance and Facilities, North Central Michigan College, 1515 Howard Street, Petoskey, MI 49770, 231-348-6603.
2. The Dean of Finance and Facilities, or designated representative will conduct a full, fair and impartial investigation of the allegation. 3. If the investigation reveals that the allegation of sexual harassment is established by substantial evidence, the individual who has engaged in the misconduct will be subject to appropriate disciplinary action. If the allegation of sexual harassment is not established by substantial evidence, no disciplinary action will be taken against the individual accused. Personnel will be protected against reprisals for exercising the right to invoke this policy and also from false and/or unsubstantiated accusations.

Privacy and Social Security Number Policy
North Central Michigan College will take appropriate action to protect the privacy of individuals, students and employees in its records and operations.

Procedure:
Except as permitted by law, the College will not:
1. Publicly display* all or more than four sequential digits of a person’s Social Security Number.
2. Visibly print all or more than four sequential digits of a Social Security Number on any identification badge or card, membership card, permit or license.
3. Transmit all or more than four sequential digits of a Social Security Number over the Internet or computer system unless the connection is secure or transmission is encrypted.
4. Use or transmit all or more than four sequential digits of a Social Security Number to gain access to an Internet website or computer system unless the connection is secure and encrypted.

*“Publicly display” means to exhibit, hold up, post, or make visible or set out for open view, including, but not limited to, open view on a computer device, computer network, website, or other electronic medium or device, to members of the public or in a public manner.

The College expects each student, employee, and any other person who may use the facilities or resources of the College to protect the privacy of its students and employees, and to bring to the attention of an appropriate responsible person any privacy violation they may observe. In addition:

1. Each person who uses or has access to any North Central Michigan College record which contains any person’s Social Security number, or who has access to the Social Security number of any student or employee, will keep this information confidential.
2. Disclosure of such information will be only to those with a specific need to know for a legitimate College purpose, or in response to a legitimate and lawful request.
3. The College will permit access to such information only to those with a need to know, and will review access and permission for access not less than once yearly.
4. All documents or other records which contain such information shall be kept in a secure environment accessible only to those who have been specifically authorized to have access, and will be disposed of only by shredding or other appropriate means which renders a Social Security Number illegible and as difficult as possible to reconstruct.
5. Violations of this policy and procedure may be cause for discipline up to and including dismissal or termination, and may give rise to further legal proceedings.

Student Conduct Policy
Students are responsible for obeying municipal, state and federal laws which govern the community, as well as the rules and regulations of the College. If a student participates individually or as a member of a group in any violation of the conduct standards, he or she can be subject to disciplinary action.

The student conduct standards also apply to off-campus activities, such as field trips, off-campus classes and College-sponsored events. On a case-by-case basis, the Dean of Student Services or other appropriate deans will determine if a hearing is necessary.

Enrollment carries with it obligations relative to conduct both within and outside the classroom. If a student is accused of less-than-acceptable behavior, College procedures provide for due process to ensure that the student receives fair and equitable treatment.
If a student is seeking a degree at North Central and fails to disclose that he or she has attended other academic institutions prior to enrollment at North Central, that student is in violation of the student conduct standards and is jeopardizing his or her continued enrollment at North Central.

A complete description of North Central’s due process procedures, disciplinary actions, forms of misconduct, and penalties appears on the North Central website, www.ncmich.edu.

**Degrees**

**Academic Programs**
North Central offers many opportunities to earn college credit. Students may choose to pursue an associate’s degree that will transfer to another college or university, earn transfer credits toward a four-year degree, earn an associate’s degree in a career-related area, or earn a certificate for immediate employment. Whatever students choose to study, it is recommended that they plan the program with a North Central academic advisor or counselor.

Programs of study fall into two major categories: **transfer** and **career**.

**Transfer** programs prepare students who plan to transfer to four-year colleges and universities after completing their coursework at North Central. The degrees for these programs are the Associate of Arts, the Associate of Science, and the Associate of General Studies.

**Career** programs prepare students for entry into a specific job-related field, for advancement in a current job or for making a career change. Career programs are associate of applied science degrees, certificates, and certificates of development. In recent years, many graduates with AAS degrees have gone on to earn additional degrees at upper-division institutions.

**General Education Requirements**
On completion of any associate’s degree program, a graduate will be able to do the following:

1. Think critically and analytically;
2. Write and speak effectively.

**Assessment of General Education**
General education is an important component of every degree program offered by the College. In order to ensure that North Central students are receiving the highest quality education available and to continue membership in relevant accrediting associations, it is necessary for the College to continuously monitor the results of its general education program. Therefore the College may, from time to time, ask students to participate in the assessment of general education at North Central.
General Education Degree Requirements at a glance.

<table>
<thead>
<tr>
<th></th>
<th>Associate of Arts</th>
<th>Associate of Science</th>
<th>Associate of General Studies</th>
<th>Associate of Applied Science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Composition</strong></td>
<td>ENG 111 + ENG 112</td>
<td>ENG 111 + ENG 112</td>
<td>ENG 111 + ENG 112</td>
<td>ENG 111 + ENG 112</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>COM 111 or 170</td>
<td>COM 111 or 170</td>
<td>COM 111 or 170</td>
<td>COM 111 or 170</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>MTH 113 or MTH 119 or Any MTH 100+ or B 104</td>
<td>Varies according to program</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Natural Science</strong></td>
<td>2 lab courses, 1 each from Group A and Group B</td>
<td>One science course</td>
<td>Varies according to program</td>
<td></td>
</tr>
<tr>
<td><strong>Social Science</strong></td>
<td>3 courses, 1 from Group A</td>
<td>3 courses, 1 from Group A</td>
<td>One course</td>
<td>Varies according to program</td>
</tr>
<tr>
<td><strong>Humanities</strong></td>
<td>3 courses, 1 from Group A</td>
<td>3 courses, 1 from Group A</td>
<td>One course</td>
<td>Varies according to program</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td>20-23 credits including 16 credits of additional science and upper-level math</td>
<td>36-39 credits</td>
<td>Varies according to program after satisfaction of specific program requirements.</td>
<td></td>
</tr>
<tr>
<td><strong>MACRAO Agreement</strong></td>
<td>Satisfied</td>
<td>Electives can be used to fulfill Agreement</td>
<td>Additional courses can be chosen to fulfill Agreement. ECE AAS satisfies MACRAO</td>
<td></td>
</tr>
</tbody>
</table>

To graduate with a degree, a student must complete the total number of credit hours required for the degree being sought, even if courses have been waived or competency has been demonstrated through ACT, COMPASS or CLEP testing scores.

NOTE: When transferring to another college or university, you may be required to take the courses that were waived or competency demonstrated at North Central.
General Education Distribution Areas
Courses within these areas fulfill General Education requirements in degree programs. See subsequent pages in this catalog for course recommendations for the Associate of Arts, Associate of Science, Associate of General Studies and Associate of Applied Science degrees.

I. Communications
Writing:
ENG 111 English Composition I 3 cr
ENG 112 English Composition II 3 cr

Communications:
COM 111 Speech or 3 cr
COM 170 Interpersonal Communication 3 cr

II. Mathematics
MTH 101 Math for Elementary Teachers I 3 cr
MTH 102 Math for Elementary Teachers II 3 cr
MTH 106 Pre-Algebra and Beginning Algebra 4 cr
MTH 111 Beginning Algebra 4 cr
MTH 113 Intermediate Algebra 4 cr
MTH 119 College Algebra 4 cr
MTH 122 Analytical Geometry & Calculus I 5 cr
MTH 123 Trigonometry and Applications 4 cr
MTH 211 Analytical Geometry & Calculus II 5 cr
MTH 212 Analytical Geometry & Calculus III 5 cr
MTH 215 Differential Equations 3 cr
STAT 200 3 cr

III. Humanities
Group A:
ART 105 Art History I 3 cr
ART 106 Art History II 3 cr
ENG 130 Introduction to Literature 3 cr
ENG 221 English Literature I 3 cr
ENG 222 English Literature II 3 cr
ENG 231 American Literature I 3 cr
ENG 232 American Literature II 3 cr
ENG 241 World Literature I 3 cr
ENG 242 World Literature II 3 cr
HST 131 History of U.S. 1607-1877 3 cr
HST 132 History of U.S. 1877-present 3 cr
HST 231 Western Civilization I 3 cr
HST 232 Western Civilization II 3 cr
PHL 101 Introduction to Philosophy 3 cr

Group B:
ENG 213 Shakespeare I 3 cr
ENG 214 Shakespeare II 3 cr
ENG 215 Introduction to Poetry 3 cr
ENG 240 Children’s Literature 3 cr
ENG 244 Multicultural Literature 3 cr
ENG 250 Mythology 3 cr
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 251</td>
<td>Contemporary Literature I</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENG 252</td>
<td>Contemporary Literature II</td>
<td>3 cr</td>
</tr>
<tr>
<td>ENG 255</td>
<td>Modern Mythology: Tolkien &amp; Lewis</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 140</td>
<td>Celts and Nature</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 141</td>
<td>Culture and Mythology: Quest for the Grail</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 205</td>
<td>The Civil War</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 220</td>
<td>Cultural History of Native Americans I</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 221</td>
<td>Cultural History of Native Americans II</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 255</td>
<td>History of Rock and Roll Era</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 235</td>
<td>World War II</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 258</td>
<td>America in the 60s</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 261</td>
<td>Intro to Latin America</td>
<td>3 cr</td>
</tr>
<tr>
<td>HST 270</td>
<td>Michigan History</td>
<td>3 cr</td>
</tr>
<tr>
<td>MU 120</td>
<td>History of Music</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHL 102</td>
<td>Introduction to Logic</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHL 109</td>
<td>Contemporary Moral Issues</td>
<td>3 cr</td>
</tr>
<tr>
<td>PHL 150</td>
<td>Dangerous Ideas</td>
<td>3 cr</td>
</tr>
<tr>
<td>REL 100</td>
<td>World Religions</td>
<td>3 cr</td>
</tr>
<tr>
<td>REL 102</td>
<td>History of Religion in the United States</td>
<td>3 cr</td>
</tr>
<tr>
<td>THF 101</td>
<td>Survey of the Theatre</td>
<td>3 cr</td>
</tr>
<tr>
<td>THF 276</td>
<td>Contemporary Film</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

**IV. Social Science**

**Group A:**
- ANP 110 Cultural Anthropology                   | 3 cr |
- ECO 111 Macroeconomics                           | 3 cr |
- GEO 121 World Geography                          | 4 cr |
- PLS 141 Introduction to American Government     | 3 cr |
- PSY 161 Introduction to Psychology               | 3 cr |
- SOC 171 Introduction to Sociology                | 3 cr |

**Group B:**
- ANP 130 Introduction to Prehistoric Archeology  | 3 cr |
- ANP 161 Introduction to Biological Anthropology  | 3 cr |
- ANP 210 Ethnology of World Cultures              | 3 cr |
- ECO 112 Microeconomics                           | 3 cr |
- GEO 111 Elements of Geography                    | 3 cr |
- PLS 200 International Relations                  | 3 cr |
- PLS 225 Citizen Politics at Local Level          | 3 cr |
- PLS 270 Vietnam Then and Now                     | 3 cr |
- PSY 210 Human Sexuality                          | 3 cr |
- PSY 235 Theories of Personality                  | 3 cr |
- PSY 241 Abnormal Psychology                      | 3 cr |
- PSY 255 Child Psychology                         | 3 cr |
- PSY 261 Developmental Psychology                 | 3 cr |
- PSY 290 Social Psychology                        | 3 cr |
- SOC 110 Introduction to Women’s Studies          | 3 cr |
- SOC 120 Contemporary Social Problems             | 3 cr |
- SOC 208 Juvenile Delinquency                     | 3 cr |
- SOC 220 Death and Dying                          | 3 cr |
- SOC 230 Race and Ethnicity in America            | 3 cr |
- SOC 250 Deviant Behavior                         | 3 cr |
- SOC 271 Marriage and the Family                  | 3 cr |

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V. Natural Science

Group A:
- BIO 101 Introduction to Biology 4 cr
- BIO 133 Human Biology with lab 4 cr
- BIO 151 General Biology I 4 cr
- BIO 152 General Biology II 4 cr
- BIO 235 General Anatomy and Physiology 4 cr

Group B:
- CEM 101 Fundamentals of Chemistry 4 cr
- CEM 121 Principles of Chemistry I 5 cr
- ESC 101 Introduction to Earth Science 4 cr
- ESC 121 Physical Geology 4 cr
- ESC 122 The Earth Through Time 4 cr
- ESC 150 Weather and Climate 4 cr
- ESC 201 Foundations of Astronomy 4 cr
- PHY 101 Concepts in Physics 4 cr
- PHY 210 General Physics I 5 cr

Transfer of Credits and the MACRAO Transfer Agreement

The Associate of Arts and Associate of Science degrees offered by North Central are designed to be equivalent to the first two years of study at a four-year institution. The distribution of courses duplicates the general education requirements at the senior institutions.

Transferability is essential since liberal arts education is an important part of North Central’s mission. Course transferability from the categories below may vary by institution and program of study. While North Central students have the assurance of transfer agreements between colleges, it is important for each student to meet with an advisor at both North Central and the four-year transfer institution. The MACRAO website at www.macrao.org is maintained by the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO). It contains course equivalency information between colleges and universities and is easy to use. Many participating universities post on-line transfer guides on the MACRAO site.

The MACRAO Transfer Agreement allows for smooth transferability of courses among participating Michigan colleges and universities. It stipulates that 30 semester hours of 100-level and above compatible general coursework will satisfy typical freshman- and sophomore-level general education requirements for the bachelor’s degree at participating universities. A number of the participating institutions have limitations, exceptions, or provisos to the MACRAO Agreement. The most current list can be found at www.macrao.org.

A North Central student who completes the 30 credit hours for the MACRAO Transfer Agreement and who seeks to transfer to another institution must request that Student Services stamp his/her transcript “MACRAO Agreement Satisfied.” Students transferring credits to North Central must complete a minimum of 15 credit hours of North Central coursework before the MACRAO Agreement can be satisfied.

North Central courses satisfying the MACRAO Transfer Agreement by category:

- **English Composition (6 credit hours):**
  - English 111 and English 112

- **Science and Mathematics (8 credit hours):**
Must include a lab class and courses from at least two disciplines. Any course from the following: biology, chemistry; earth science, physics, physical science, geology; statistics; mathematics 100 and above.

**Social Sciences (8 credit hours):**
Must include courses from at least two disciplines. Any course from the following: anthropology, economics, geography, political science, psychology, sociology.

**Humanities (8 credit hours):**
Must include courses from at least two disciplines. Any course from the following: philosophy; religion; Art 105, 106; ENG 130, 213, 214, 215, 221, 222, 231, 232, 240, 241, 242, 244, 250, 251, 252, 255; history; MU 120; THF 101, 276.

New courses may be created that also satisfy the MACRAO agreement. Check with Student Services for the MACRAO status of any course not appearing in the above listing.

**Understanding Career Programs**

North Central offers a number of career programs for students seeking the education and skills to enter the job market or to advance their current careers. Students selecting career programs can earn a Certificate of Development, Certificate or an Associate of Applied Science degree.

The career programs presented in this section are designed primarily to prepare students for the workplace rather than to transfer to a four-year college or university. However, many career courses and programs will transfer to other colleges and universities through articulations and special agreements. For more information on transferability options, consult with the advisors and counselors in Student Services.

**All Associate of Applied Science degrees require:**
- A minimum of 60 credit hours
- A minimum of 15 credit hours taken from North Central
- A minimum cumulative grade point average of 2.0
- No more than 2 credit hours of physical education
- General education requirements
- Program requirements
- Additional requirements
- Related electives

**Certificate Programs**
Most certificate programs require 30 credit hours and can be completed with two semesters of full-time study. Many certificates follow a prescribed sequence that starts in the fall semester and is completed at the end of the winter semester. It is very important that students work with an advisor, as these programs often do not provide a great deal of flexibility.

A certificate is not the same as a licensing exam or certification awarded by a national or regional accrediting association, although some programs prepare students to take licensing exams or participate in certification processes.

**Certificate of Development Programs**
In addition to the certificate programs, North Central also offers several certificates of development. These are fewer than 30 credit hours in length and help the student develop specific skills and knowledge.

**Career Program Checklist**
- Meet with the lead faculty or coordinator for your career area early in your studies. Keep in frequent contact with this person to stay current with scheduling and upgrades to the program.
Follow information as presented in the most current North Central catalog so that you take the proper prerequisite courses.

Check with the lead faculty or coordinator for your program about the sequencing of courses for upcoming semesters so that you can graduate in a timely manner.

If necessary, plan ahead for your Work-Based Learning or internship experience by making an appointment with your faculty advisor coordinator well in advance of the semester in which you plan to enroll. Note that some Career Programs no longer require Work-Based Learning.

Make the most of services offered through the Career Resource Center: http://www.ncmich.edu/new_crc/postings.php.

Understanding Transfer Programs

Transferring Credits to other Institutions

North Central offers many degree programs for students who plan to transfer to senior institutions. North Central students have the assurance of transfer agreements between colleges, along with curriculum guides and an important website, www.macrao.org to verify the transferability of courses. The website is maintained by the Michigan Association of Collegiate Registrars and Admissions Officers (MACRAO) and is easy to use. Participating colleges and universities post on-line transfer guides on the MACRAO site.

North Central students who expect to transfer to a senior institution should plan their programs of study with the help of a North Central academic advisor or counselor and an admissions advisor from the college or university they wish to attend.

Suggestions for transferring are contained in this catalog to help students select courses that may be applied toward the requirements of bachelor’s degrees at other institutions. These should not be considered a replacement for transfer guides from the senior institutions.

Transferring toward Arts and Communication, AA Degree
Transferring toward Business Administration, AA Degree
Transferring toward Engineering, AS Degree
Transferring toward Information Technology, AA/AS Degree
Transferring toward Teacher Certification programs in Education
Transferring toward Human Services, AA Degree
Transferring toward Social Sciences, AA Degree
Transferring toward Medical, Health Sciences, AS Degree
Transferring toward Natural Sciences, AS Degree

Transfer Student Checklist

• Identify the four-year college or university of your choice as early as possible.
• Meet with North Central counselors and academic advisors to keep current with transfer issues, to satisfy your associate degree requirements, and to ensure transferability of courses.
• Attend transfer events. Meet with representatives from Michigan’s four-year universities. Visitation dates and scholarship information are listed on the College’s website, posted on bulletin boards throughout campus, and posted in Student Services.
• Follow the transfer guide, prepared by the four-year university, which lists course requirements for your specific transfer program. Inquire about the MACRAO Agreement. Check out www.macrao.org.
• Apply to the four-year college or university of your choice in a timely manner. Many applications for admission are available online at www.macrao.org.

Transfer Associate Degrees
The associate’s degrees listed below require the following:
• A minimum of 60 semester credit hours;
• A minimum of 15 semester credit hours taken from North Central;
• A minimum cumulative grade point average of 2.0;
• No more than 2 credits from the Physical Education department.

**Associate of Arts (AA)**
**Program Code 300**
**Contact Hours: Variable**
The Associate of Arts degree is for students who plan to transfer to a four-year college or university. The Associate of Arts degree is appropriate for most transfer programs leading to a bachelor’s degree.

**General Education** 37-40 credit hours
See subsequent pages for courses fulfilling credit hours general education distribution requirements

**Communications** 9 credit hours
*ENG 111  
*ENG 112  
*COM 111 or 170

**Humanities** 9 credit hours
*3 courses from at least 2 disciplines  
*1 course from Group A

**Social Sciences** 9-10 credit hours
*3 courses from at least 2 disciplines  
*1 course from Group A

**Natural Sciences** 8-9 credit hours
* 2 lab courses, 1 each from Group A and Group B

**Mathematics** 4 credit hours
Satisfied by one of the following:
*MTH 113  
*An equivalent or higher math than MTH 113 (MTH 101, 102, 119, 123, STAT 200)  
*ACT Math score of 23 or higher  
*COMPASS Math score of 171 or higher

**General Electives** 20-23 credit hours
Electives should be carefully chosen. Refer to the transfer guides listed after each program of study.

To graduate with a degree, a student must complete the total number of credit hours required for the degree being sought, even if courses have been waived or competency has been demonstrated through ACT, COMPASS or CLEP testing scores.

NOTE: When transferring to another college or university, you may be required to take the courses that were waived or competency demonstrated at North Central.
Associate of Science (AS)
Program Code 400
Contact Hours: Variable

The Associate of Science degree is for students who plan to pursue a bachelor’s degree in a science field.

General Education  37-40 credit hours
See pages 42-43 for courses fulfilling general education distribution requirements

Communications  9 credit hours
* ENG 111
* ENG 112
* COM 111 or 170

Humanities  9 credit hours
* 3 courses from at least 2 disciplines
* 1 course from Group A

Social Sciences  9-10 credit hours
* 3 courses from at least 2 disciplines
* 1 course from Group A

Natural Sciences  8-9 credit hours
* 2 lab courses, 1 each from Group A and Group B

Mathematics  4 credit hours
Satisfied by one of the following:
* MTH 119
* An equivalent or higher math than MTH 119 (MTH 122, 123, 211, 212, 215)
* ACT Math score of 26 or higher
* COMPASS Math score of 246 or higher

Science and Mathematics Electives 16 credit hours
Additional science, mathematics and statistics electives are required. No mathematics course below. MTH 119 can be used for an elective in this category. See Transfer Guides, beginning on page XX, for suitable course choices.

General Electives  20-23 credit hours
Electives should be carefully chosen. Refer to the transfer guides listed after each program of study.

To graduate with a degree, a student must complete the total number of credit hours required for the degree being sought, even if courses have been waived or competency has been demonstrated through ACT, COMPASS or CLEP testing scores.

NOTE: When transferring to another college or university, you may be required to take the courses that were waived or competency demonstrated at North Central.
Associate of General Studies (AGS)
Program Code 600
Contact Hours: Variable

The Associate of General Studies degree is for students who wish to earn an associate’s degree that may transfer to a college or university or who are following a planned bachelor’s degree program with a North Central University Center partner. Students intending to transfer to a Michigan college or university should use electives to satisfy the MACRAO Agreement. An AGS may not be earned concurrently with an AA.

This degree is also ideal for the general studies student who has attended several other colleges and universities and wishes to complete a two-year degree.

General Education 21-25 credit hours
See pages 42-43 for courses fulfilling general education distribution requirements

Communications 9 credit hours
* ENG 111
* ENG 112
* COM 111 or 170

Humanities 3 credit hours
1 course from either Group A or B

Social Sciences 3-4 credit hours
1 course from either Group A or B

Natural Sciences 3-4 credit hours
1 course

Mathematics 3-4 credit hours
Satisfied by one of the following:
* Any Math course above 100
* B 104
* ACT Math score of 21 or higher
* COMPASS Math score of 146 or higher

General Electives 36-39 credit hours
Elective should be carefully chosen. Students pursuing a bachelor’s degree must take Additional coursework in General Education distribution areas in keeping with the MACRAO Agreement.

To graduate with a degree, a student must complete the total number of credit hours required for the degree being sought, even if courses have been waived or competency has been demonstrated through ACT, COMPASS or CLEP testing scores.

NOTE: When transferring to another college or university, you may be required to take the courses that were waived or competency demonstrated at North Central.
North Central Michigan College offers the following Programs of Study:

**Arts and Communications**
Certificate of Development (CD)
- 113 Graphic Arts
- 112 Textiles

Certificate (C)
- 132 Art - Fine Craft
- 133 Art - Studio Art
- 131 Communications

**300 Transfer Associate of Arts (AA)**
- Architecture
- Art
- Communications
- English
- Interior Design
- Philosophy/Religion
- Pre-Law
- Theatre

**Business Administration**
Certificate of Development (CD)
- 142 Entrepreneurship Essentials
- 117 Hotel and Hospitality
- 111 New Media
- 158 Office Support Specialist
- 159 Receptionist

Certificate (C)
- 105 Accounting Assistant
- 110 Advertising Assistant
- 151 Entrepreneurship
- 165 General Office Professional
- 118 Hospitality and Casino Mgmt
- 149 Management
- 135 Marketing Assistant
- 150 Small Business Mgmt

**Career Associate Degree (AAS)**
- 205 Accounting
- 220 Business Management
- 218 Hospitality and Casino Mgmt
- 245 Marketing
- 277 Administrative Assistant-OAS
- 270 Medical Office-OAS
- 290 Wooden Boat Building

**350 Transfer Associate of Arts (AA)**
- Accounting
- Advertising
• Business Administration
• Marketing

General Studies
600 Associate of General Studies (AGS)

Non-Degree
053 EMT
098 Physical Education courses

Information Technology & Engineering
Certificate (C)
116 Computer Aided Design (CAD)
162 Computer Information Systems
182 Computer Networking

Career Associate Degree (AAS)
243 Computer Information Systems
282 Computer Networking
236 Geographic Information Systems

410 Transfer Associate of Science (AS)
• Architecture
• Engineering
• Computer Technology
• Mathematics

Human Services/Social Sciences
Certificate of Development (CD)
170 Early Childhood Education
127 Corrections (State)
177 Legal Assistant

Certificate (C)
173 Early Childhood Education
125 Law Enforcement Aide

Career Associate Degree (AAS)
225 Criminal Justice
226 Law Enforcement (w/ NMC)
227 Law Enforcement (w/ KCC)
280 Early Childhood Education
276 Legal Assistant

340 Transfer Associate of Arts (AA)
• Anthropology
• Criminal Justice
• History
• Hospital/Administration
• Political Science
• Public Administration
• Public Safety
• Psychology
• Sociology
• Social Work
• Education

Health Sciences/Allied Health
Certificate of Development (CD)
  197 Certified Nursing Aide
  152 EMS/Basic
  179 Medical Billing and Coding
  178 Phlebotomy Technician

Certificate (C)
  153 EMS/Paramedic
  180 Medical Assistant
  163 Medical Transcriptionist

Career Associate Degree (AAS)
  253 EMS/Paramedic
  250 Nursing

421 Transfer Associate of Science (AS)
  • Dietetics/Nutrition
  • Pre-Pharmacy
  • Pre-Medicine/Nursing/Dental
  • Pre-Veterinary
  • Recreation/Physical Education

Natural Sciences
Career Associate Degree (AAS)
  247 Applied Plant Science (w/MSU)

400 Transfer Associate of Science (AS)
  • Geography
  • Biology/Botany/Zoology
  • Chemistry
  • Natural Resources/Environmental
  • Physics/Astronomy
  • Geology/Earth Science

University Center Programs

Lake Superior State University
  • Accounting (BS)
  • Business Administration (BS)
  • Criminal Justice (BS)
  • Early Childhood Education (BS)
  • Individualized Studies (BA/BS)
  • Legal Management
  • Liberal Studies (BA/BS)
  • Nursing (BSN Completion)

Ferris State University
  • Respiratory Therapy (AAS)

Spring Arbor University
• Elementary Education (BA)
• Social Work (BSW)
• Secondary Education (BA/BS)

**Macomb Community College**
• Physical Therapist Assistant (AAS)

**Legend:**
CD Certificate of Development
C Certificate
AA Associate of Arts
AS Associate of Science
AAS Associate of Applied Science
AGS Associate of General Studies
BA Bachelor of Arts
BS Bachelor of Science
BSN Bachelor of Science in Nursing

**Arts and Communication**

*Transferring Toward the Arts and Communication, AA Degree*

Students considering a bachelor’s degree in the areas of the fine arts, humanities, English language and literature, religion and philosophy, theater, broadcast, creative writing and journalism, public relations and advertising should use these recommendations when fulfilling degree requirements at North Central Michigan College.

Every college and university has its own specific degree requirements for this large array of majors. Students are advised to work closely with an advisor from both North Central and the transfer institution to make sure they choose proper coursework.

Lake Superior State University offers a bachelor’s completion program in liberal studies with emphases in public relations and in public administration, as well as a bachelor’s in individualized studies on the campus of North Central Michigan College. Students considering the LSSU program are advised to follow specific curriculum guide sheets developed by LSSU. Contact Student Services, 231-348-6605, to obtain a guide sheet.

**Recommendations for fulfilling General Education requirements:**
For Humanities, choose HST 231 or 232, and ENG 130, to represent two of the required three courses

**Recommendations for fulfilling General Electives:**
Choose according to your intended major that align with requirements at the four-year college or university:

ART 100
ART 101
ART 102
ART 109
ART 105, 106, 115, 117
ART 113
B 207
ENG 215
ENG 231,232
ENG 221, 222
Graphic Arts
Certificate of Development •
Program code: 113 • Credit Hours: 22 Contact Hours: 22
Associate Dean of Liberal Arts: Samantha McLin

This Certificate is designed to provide a foundation of study in the graphic arts. Students who complete this certificate will be prepared to transfer to a four-year program or enter the workforce as an entry-level graphic designer.

Program Requirements: 22 Credit Hours
ART 100 Two Dimensional Design 3
ART 101 Color Theory 3
ART 109 Basic Drawing and Composition or 3
ART 213 Type and Image 3
CAP 135 Web Page Design 3
CAP 140 Introduction to Adobe Photoshop 3
CAP 145 Introduction to Adobe Illustrator 3
CAP 150 Introduction to Adobe In Design 3

Choose one course from the following:
OAS 101 Customer Service 1
OAS 190 Employability Skills 1
SD 107 Professional Development Skills 1
SOC 115 Anishinaabek Culture (required for WOCTEP students) 1
Certificate in Art
Certificate
Program Codes: 132 and 133 • Credit Hours: 30  Contact Hours:  30
Coordinator: Shanna Robinson

This Certificate is designed to provide a foundation of study in the fine arts. Students who complete this certificate will be prepared to transfer to a four-year BFA program or begin a studio practice.

General Education Requirements  6 Credit Hours
ENG 111English Composition I  3
COM 111 Speech  3

Program Requirements  24 credit hours
ART 100 Two-Dimensional Design or  3
ART 101 Color Theory  3
ART 102 Three-dimensional Design  3
ART 105 Art History I or  3
ART 106 Art History II or  3
ART 117 History of Modern Art  3
ART 109 Basic Drawing and Composition  3

Choose 12 credits from the following courses for a Fine Craft Concentration (132):
ART 202 Introduction to Fiber and Textile Design  3
ART 204 Ceramics I  3
ART 205 Ceramics II  3
ART 206 Ceramics III  3
ART 208 Advanced Ceramics  3
ART 212 Life Drawing  3
ART 220 Stained Glass  3
ART 221 Advanced Stained Glass  3
ART 130 Jewelry Design  3
ART 119 Survey of Glass Techniques  3
ART 231 Introduction to Weaving  3
ART 232 Advanced Weaving  3
ART 235 Dye Intensive  3
ART 236 Natural Dye Intensive  3

OR

Choose 12 credits from the following courses for a Studio Art Concentration (133):
ART 110 Painting and Composition  3
ART 112 Watercolors I  3
ART 113 Oil Painting  3
ART 141 Pastel Landscape Painting  3
ART 201 Printmaking  3
ART 212 Life Drawing  3
ART 213 Type and Image  3
ART 215 Advanced Painting and Composition  3
ART 218 Watercolors II  3
ART 219 Watercolors III  3
Textiles
Certificate of Development
Program Code: 112
Credit Hours: 22  Contact Hours: 22
Coordinator: Shanna Robinson

This certificate of development is designed to provide a foundation of study in the textile arts. Students who complete this certificate will be prepared to transfer to a four-year program or enter the workforce as an entry-level textile worker.

Program Requirements

ART CORE
Choose one of the following:
ART 105 Art History I 3
ART 106 Art History II 3
ART 115 History of Non-Western Art 3
ART 116 History of Interiors 3
ART 117 History of Modern Art 3

Choose one of the following:
ART 101 Color Theory 3
ART 100 Two Dimensional Design 3

Choose one of the following:
ART 109 Basic Drawing and Composition 3
ART 102 Three Dimensional Design 3

TEXTILES CORE
Choose four of the following:
ART 202 Introduction to Fiber and Textile Design 3
ART 230 Surface Design for Textiles 3
ART 231 Introduction to Weaving 3
ART 235 Dye Intensive 3
ART 236 Natural Dye Intensive 3

Additional Requirements

Choose one of the following:
CAP 100 Computers for the Very Beginner 1
OAS 110 Keyboarding Fundamentals 1
SD 107 Professional Development Skills 1
Soc 115 Anishinaabek Culture (required for WOCTEP students) 1

Suggested Sequence for Full-Time Students:
Semester I (Fall)
Art 100 Two Dimensional Design or
Art 101 Color
Choose any Art History
Choose two from Textiles Core

Semester II (Winter)
Art 109 Drawing and Composition or
Art 102 Three Dimensional Design
Choose two Textiles Core
Choose one of the Additional Requirements (1 credit)

**Communications Certificate**

**Program Code: 131  Credit Hours: 33  Contact Hours: 33**

**Coordinator: Carol Noël**

This certificate is designed for the individual who would like to develop professional-level speaking, writing and interpersonal communication skills and learn to apply such skills to academic, professional and/or personal endeavors.

**General Education Requirements 0**

**Program Requirements  30 Credit Hours**

- ENG 111 English Composition I  3
- ENG 112 English Composition II  3
- COM 111 Speech  3
- COM 170 Interpersonal Communications  3
- B 207 Business Communications  3
- COM 235 Gender Communications  3
- COM 250 Small Group Communications  3
- PSY 161 Introduction to Psychology or
- SOC 171 Introduction to Sociology  3
- M 205 Principles of Selling  3
- COM 105 Mass Media  3

**Electives (choose one of the following)**

- THF 101 Survey of the Theatre  3
- JRN 102 News Writing  3
- JRN 220 Newspaper Production  3
- COM 121 Oral Interpretation  3
- M 200 Introduction to Marketing  3
- M 202 Fundamentals of Advertising  3
Business Administration

Transferring Toward Business Administration, AA Degree

Students considering a bachelor’s degree in the areas of Accounting, Business Administration, Management, Marketing, and Management/Computer Information Systems should consider the following recommendations for fulfilling degree requirements at North Central Michigan College.

Every college and university has its own specific requirements for admitting students to business studies. Admission is often competitive and begins after the student has completed the freshman and sophomore years. Students are advised to work closely with an advisor from both North Central and the transfer institution to make sure they choose proper coursework.

Lake Superior State University offers a variety of bachelor’s completion programs in business on the campus of North Central Michigan College. Students considering the LSSU program are advised to follow specific curriculum guide sheets developed by LSSU. Contact Student Services, 231-348-6605, or Lake Superior State University’s Petoskey office, 231-348-6623, to obtain a guide sheet.

Pre-Business

Recommendations for fulfilling General Education requirements:
For Social Sciences Group A, choose ECO 111

Recommendations for fulfilling General Electives:
ECO 112
B 211
B 212
B 290
CIS 100
MTH 119
MTH 123
M 200
B 200
STAT 200
**Accounting**

**Associate of Applied Science**

**Program Code: 205  Credit Hours: 60  Contact Hours: 60**

**Associate Dean: Robert Marsh • Faculty Contact: Thomas Barkley**

This program prepares the student for a career in business, government or industry. Because of the growing complexity of accounting processes, well-educated students have numerous opportunities in the field.

Students who demonstrate math competency are exempt from the mathematics requirement. A math course higher than MTH 111 will also meet this requirement.

See your program coordinator for approval of other course options or if you need assistance.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>12-13 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>COM 111 Speech or</td>
<td>3</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>B 104 Business Math or</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111 Beginning Algebra</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>40 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 113 Computer Assisted Accounting</td>
<td>3</td>
</tr>
<tr>
<td>B 207 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>B 211 Accounting Principles I</td>
<td>4</td>
</tr>
<tr>
<td>B 212 Accounting Principles II</td>
<td>4</td>
</tr>
<tr>
<td>B 213 Intermediate Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>B 214 Intermediate Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>B 216 Federal Taxation I</td>
<td>3</td>
</tr>
<tr>
<td>B 218 Cost Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>B 290 Business Law I or</td>
<td>3</td>
</tr>
<tr>
<td>B 291 Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 111 Macroeconomics or</td>
<td>3</td>
</tr>
<tr>
<td>ECO 112 Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>M 200 Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>OAS 252 Microsoft Office for Windows</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Requirements</th>
<th>7-8 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select courses from the following list to satisfy the remaining 5-11 credit hours of program requirements:</td>
<td></td>
</tr>
<tr>
<td>B 104 Business Math</td>
<td>3</td>
</tr>
<tr>
<td>B 161 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>B 200 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>B 290 Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>B 291 Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>CAP 125 MS Excel</td>
<td>3</td>
</tr>
<tr>
<td>CAP 130 MS Access</td>
<td>3</td>
</tr>
<tr>
<td>CAP 135 Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>ECO 111 Macroeconomics or</td>
<td>3</td>
</tr>
<tr>
<td>ECO 112 Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101 Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 121 Keyboarding I</td>
<td>2</td>
</tr>
<tr>
<td>OAS 190 Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>PSY 161 Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
Course Recommendations:
COM 111 Speech is the preferred option for the Communications requirement.

Suggested Sequence for Full-Time Students

Semester I (Fall)
B 211
ENG 111
B 104 or MTH 111
OAS 252
Additional requirement

Semester II (Winter)
B 113
B 212
ECO 111 or 112
ENG 112
Additional requirement

Semester III (Fall)
B 213
B 218
B 290 or 291
M 200

Semester IV (Winter)
B 207
B 214
B 216
COM 111 or 170
Additional requirement
Accounting Assistant Certificate
Program Code: 105  Credit Hours: 31  Contact Hours: 31
Associate Dean: Robert Marsh • Faculty Contact: Thomas Barkley

North Central’s certificate prepares the student for positions in a small business or corporate, governmental or institutional settings.

Program Requirements  29 Credit Hours

B 104  Business Math  3
B 113  Computer Assisted Accounting  3
B 211  Accounting Principles I  4
B 212  Accounting Principles II  4
B 290  Business Law I  or
B 291  Business Law II  3
COM 111  Speech  or
COM 170  Interpersonal Communication  3
ENG 111  English Composition I  3
OAS 121  Computer Keyboarding/Software Fundamentals  or  3
OAS 122  Document Processing I  3
OAS 252  Microsoft Office for Windows  3

Additional Requirements  2 Credit Hours
Select courses from the following list to satisfy the remaining 2 credit hours of program requirements:
B 161  Introduction to Business  3
B 162  Strategic Planning in Small Business  3
CAP  Any Computer Applications course  3
WBL 102  Work-Based Learning *  1-4
* May substitute B 285, Work-Based Learning- Business. If B285 is not offered, see your faculty advisor.

Suggested Sequence for Full-Time Students

Semester I (Fall)
B 104
ENG 111
OAS 121  or  122
B 211
B 290  or  B 291

Semester II (Winter)
B 113
B 212
COM 111  or  170
Additional Requirements
Business Development
Certificate of Development
Program Code: Federal Approval for Financial Aid Authorization Pending
Credit Hours: 16    Contact Hours: 16
Associate Dean: Robert Marsh

This program is designed to be valuable to those entering the job market for the first time, or re-entering it after a different career. This certificate will provide basic small business expertise with the goal being either employability or the ability to start one’s own business. Skills include business/accounting office fundamentals, the basics of the legal and finance world, employability and focused computer user training. At the successful completion of this program, the student will have a valuable set of skills for future employers.

Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 103</td>
<td>Basic Business Methods</td>
<td>3</td>
</tr>
<tr>
<td>B 110</td>
<td>Business Communication Essentials</td>
<td>3</td>
</tr>
<tr>
<td>CAP 100</td>
<td>Computers for the Very Beginner</td>
<td>1</td>
</tr>
<tr>
<td>CAP 102</td>
<td>Web Design for Beginners</td>
<td>1</td>
</tr>
<tr>
<td>ENT 120</td>
<td>Financing an Entrepreneurial Business</td>
<td>1</td>
</tr>
<tr>
<td>ENT 125</td>
<td>Legal Issues for Entrepreneurs</td>
<td>1</td>
</tr>
<tr>
<td>ENT 130</td>
<td>Tax Law and Policy</td>
<td>1</td>
</tr>
<tr>
<td>OAS 101</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 190</td>
<td>Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>OAS 252</td>
<td>MS Office</td>
<td>3</td>
</tr>
</tbody>
</table>

16 Credit Hours

Suggested Sequence for Full-Time Students

<table>
<thead>
<tr>
<th>Semester I (Fall)</th>
<th>Semester II (Winter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 100</td>
<td>B 103</td>
</tr>
<tr>
<td>CAP 102</td>
<td>B107</td>
</tr>
<tr>
<td>ENT 120</td>
<td>ENT 130</td>
</tr>
<tr>
<td>OAS 190</td>
<td>OAS 101</td>
</tr>
<tr>
<td>OAS 252</td>
<td></td>
</tr>
</tbody>
</table>
Business Management
Associate of Applied Science
Program Code: 220  Credit Hours: 60  Contact Hours: 60-61
Associate Dean: Robert Marsh • Faculty Contact: Chet Jessick and Rod Anderson

Employers are looking for competent, knowledgeable managers to run their businesses. Students in this program receive the education for entry-level employment in settings that range from retail sales management to hospitality and resort facilities to supervisory management.

Students who demonstrate math competency are exempt from the mathematics requirement. A math course higher than MTH 111 will also meet this requirement.

Students may take any course numbered 100 or higher to complete elective credit hours.

General Education Requirements 12-13 Credit Hours
ENG 111 English Composition I 3
ENG 112 English Composition II 3
COM 111 Speech or 3
COM 170 Interpersonal Communication 3
B 104 Business Math or 3
MTH 111 Beginning Algebra 4

Program Requirements 38 Credit Hours
B 161 Introduction to Business 3
B 200 Principles of Management 3
B 201 Human Resource Management 3
B 207 Business Communications 3
B 211 Accounting Principles I 4
B 212 Accounting Principles II 4
B 290 Business Law I or 3
B 291 Business Law II 3
ECO 111 Macroeconomics or 3
ECO 112 Microeconomics 3
M 200 Introduction to Marketing 3
M 205 Principles of Selling: The Relationship and Leadership Edge 3
M 220 Marketing and Management Strategy 3
OAS 252 Microsoft Office for Windows 3

Electives 9-10 Credit Hours
B 113 Computerized Accounting 3
B 162 Strategic Planning in Small Business 3
B 163 Management Practices in Small Business 3
B 285 Work-Based Learning, Business 1-2
CAP 125 Excel 3
CAP 130 MS Access 3
CAP 135 Web Design 3
CIS 104 Introduction to Programming Logic 3
CIS 105 Visual Basic Programming I or 3
CIS 115 C++ Programming I 3
ECO 111 Macroeconomics or 3
ECO 112 Microeconomics 3
ENT 110 Essentials of Entrepreneurship 3
IT 101 Network + 3
M 202 Fundamentals of Advertising 3
OAS 101 Customer Service 1
OAS 190 Employability Skills 1
PSY 161 Introduction to Psychology 3
SPAN 111 Elementary Spanish I (or higher level) 4

Course Recommendations:
COM 170 Interpersonal Communication is the preferred option for the Communications requirement.

Suggested Sequence for Full-Time Students

Semester I (Fall)
B 161
B 211
ENG 111
M 200
B 104 or MTH 111

Semester II (Winter)
B 200
B 212
ENG 112
OAS 252

Semester III (Fall)
B 201
B 290 or 291
COM 111 or 170
M 205
ECO 111 or 112

Semester IV (Winter)
B 207
M 220
Electives
Electives
Management
Certificate
Program Code: 149  Credit Hours: 31-32  Contact Hours: 31-32
Associate Dean: Robert Marsh • Faculty Contact: Chet Jessick

This certificate program is designed for students who wish to develop the basic skills and knowledge to enter the business workplace after one year of study. This program will prepare students to enter a variety of settings, including retail, service, industry and hospitality.

This certificate can also act as an excellent first step to the Business Management Associate of Applied Science degree, as most of the credits earned will transfer to that degree.

Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 104 Business Math</td>
<td>3</td>
</tr>
<tr>
<td>B 161 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>B 200 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>B 201 Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>B 111 Accounting Procedures or B 211 Accounting Principles I</td>
<td>3 or 4</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>M 200 Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101 Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 252 Microsoft Office for Windows</td>
<td>3</td>
</tr>
</tbody>
</table>

Suggested Sequence for Full-Time Students

Semester I (Fall)
ENG 111
B 111 or B 211
B 104
COM 170
OAS 101
B 161

Semester II (Winter)
ENG 112
M 200
B 200
B 201
OAS 252
Small Business Management
Certificate
Program Code: 150  Credit Hours: 33-34  Contact Hours: 33-34
Associate Dean: Robert Marsh • Faculty Contact: Chet Jessick

This certificate program prepares the student for management positions in a small business, retail sales or corporate, governmental or institutional settings. Whether the student intends to manage a store, restaurant, hotel, financial operation or other type of small business, this program will help maximize opportunities for success.

Program Requirements 33-34 Credit Hours
B 104 Business Math 3
B 162 Strategic Planning in Small Business 3
B 163 Management Practices in Small Business 3
B 200 Principles of Management 3
B 111 Accounting Procedures or 3
B 211 Accounting Principles I 4
B 290 Business Law I or 3
B 291 Business Law II 3
ENG 111 English Composition I 3
M 200 Introduction to Marketing 3
M 204 E-Commerce, Retailing and Services Management 3
M 205 Principles of Selling: The Relationship and Leadership Edge 3
OAS 252 Microsoft Office for Windows 3

Suggested Sequence for Full-Time Students
Semester I (Fall)
ENG 111
B 111 or B 211
B 162
B 104
M 204

Semester II (Winter)
M 200
M 205
B 163
B 200
B 290 or B 291
OAS 252
Entrepreneurship
Certificate
Program Code: 151  Credit Hours:  31-32  Contact Hours:  31-32
Associate Dean: Robert Marsh

This certificate will help an entrepreneur start and manage a business successfully. North Central has worked with local entrepreneurs on a program that offers current business topics, excellent instruction and a very hands-on, practical approach. While this program results in an academic certificate, many of the courses being offered can be taken on a non-credit basis: grades and college credit will not be given. Many such courses are offered as brief, 3-6 hour seminars and workshops. Regardless of the type of business you are currently in or have plans to start, this program will give you the tools you need.

**Program Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 104</td>
<td>Business Math</td>
<td>3</td>
</tr>
<tr>
<td>B 111</td>
<td>Accounting Procedures or</td>
<td>3</td>
</tr>
<tr>
<td>B 211</td>
<td>Accounting Principles I</td>
<td>4</td>
</tr>
<tr>
<td>B 113</td>
<td>Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>COM 111</td>
<td>Speech or</td>
<td>3</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>M 200</td>
<td>Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENT 110</td>
<td>Essentials of Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 120</td>
<td>Financing an Entrepreneurial Business</td>
<td>1</td>
</tr>
<tr>
<td>ENT 125</td>
<td>Legal Issues for Entrepreneurs</td>
<td>1</td>
</tr>
<tr>
<td>ENT 130</td>
<td>Tax Law and Policy</td>
<td>1</td>
</tr>
<tr>
<td>ENT 135</td>
<td>Human Resource Issues in Entrepreneurship</td>
<td>1</td>
</tr>
<tr>
<td>ENT 140</td>
<td>Technology and Entrepreneurship</td>
<td>1</td>
</tr>
<tr>
<td>ENT 145</td>
<td>Advertising and the Entrepreneur</td>
<td>1</td>
</tr>
<tr>
<td>ENT 170</td>
<td>Creative Blockbusting and Problem Solving</td>
<td>3</td>
</tr>
</tbody>
</table>

**Suggested Sequence for Full-Time Students**

**Semester I (Fall)**
- B 104
- COM 111 or COM 170
- ENG 111
- ENT 110
- ENT electives (ENT 120-145)

**Semester II (Winter)**
- B 111 or B 211
- B 113
- ENT 170
- M 200
- OAS 101
- ENT electives (ENT 120-145)
Entrepreneurship Essentials
Certificate of Development
Program Code: 142  Credit Hours: 16  Contact Hours: 16
Associate Dean: Robert Marsh

Students who complete this certificate will be well-positioned to start and manage their own businesses successfully. North Central has worked with local entrepreneurs on a program that offers current business topics, excellent instruction and a hands-on, practical approach. Regardless of the type of business students are either currently in or have plans to start, this program will provide the needed tools.

Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 111</td>
<td>Accounting Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ENT 110</td>
<td>Essentials of Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 120</td>
<td>Financing an Entrepreneurial Business</td>
<td>1</td>
</tr>
<tr>
<td>ENT 125</td>
<td>Legal Issues for Entrepreneurs</td>
<td>1</td>
</tr>
<tr>
<td>ENT 130</td>
<td>Tax Law and Policy</td>
<td>1</td>
</tr>
<tr>
<td>ENT 135</td>
<td>Human Resource Issues in Entrepreneurship</td>
<td>1</td>
</tr>
<tr>
<td>ENT 140</td>
<td>Technology and Entrepreneurship</td>
<td>1</td>
</tr>
<tr>
<td>ENT 145</td>
<td>Advertising and the Entrepreneur</td>
<td>1</td>
</tr>
<tr>
<td>COM 111</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 190</td>
<td>Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>SD 107</td>
<td>Professional Development Skills</td>
<td>1</td>
</tr>
<tr>
<td>SOC 115</td>
<td>Anishinaabek Culture (required for WOCTEP students)</td>
<td>1</td>
</tr>
</tbody>
</table>

Choose one course from the following:

- OAS 101 Customer Service
- OAS 190 Employability Skills
- SD 107 Professional Development Skills
- SOC 115 Anishinaabek Culture (required for WOCTEP students)
Hospitality and Casino Management
Associate of Applied Science
Program Code: 218  Credit Hours: 60-61  Contact Hours: 60-61
Associate Dean: Robert Marsh

This program is designed for students with an interest in a career in hospitality, one of the largest and fastest growing industries in northern Michigan. Coursework consists of a combination of traditional, practical business courses and a selection of specialty hospitality courses. Depending on interest, students can design their degree programs to help them acquire the specific skills they need. While the program is designed to be particularly attractive to those in the gaming industry, the business and general hospitality courses would be useful for anyone contemplating an entry position in the hospitality business.

General Education Requirements  12 Credit Hours
B 104  Business Math  3
COM 111  Speech  or  3
COM 170  Interpersonal Communication  3
ENG 111  English Composition I  3
ENG 112  English Composition II  3

Program Requirements  20-22 Credit Hours
B 111  Accounting Procedures  or  3
B 211  Principles of Accounting I  4
B 161  Introduction to Business  3
B 200  Principles of Management  3
B 207  Business Communications  3
M 200  Introduction to Marketing  3
OAS 101  Customer Service  1
OAS 252  Microsoft Office  3
HTM 285*  Work-Based Learning-Hospitality  1-2
* If HTM 285 is not on the schedule, contact your faculty advisor or the Associate Dean

General Electives  6
Social Science Electives  6
HTM Hospitality Management Electives  15

General Electives (choose 6 credit hours)
B 201  Human Resource Management  3
B 212  Accounting Principles II  4
B 290  Business Law I  or  3
B 291  Business Law II  3
M 205  Principles of Selling  3
M 220  Marketing and Management Strategy  3

Social Science Electives (choose 6 credit hours)
ECO 111  Macroeconomics  *  3
ECO 112  Microeconomics  *  3
PLS 141  Introduction to American Government  3
PSY 161  Introduction to Psychology  3
* ECO 111 and ECO 112 are the preferred options for the Social Science requirement.

Hospitality Management Electives (choose 15 credit hours)
HTM 121  Introduction to the Hospitality Industry  3
HTM 130  Food and Beverage Management  3
HTM 140  Introduction to Gaming Management  3
HTM 232 Hospitality Law and Ethics 3
HTM 240 Casino Operations and Management I 3
HTM 245 Casino Operations and Management II 3
HTM 250 Casino Risk Management 3

Suggested sequence for full time students

Semester I (Fall)
B 104
B 111 or 211
COM 111 or 170
ENG 111
M 200

Semester II (Winter)
B 161
B 200
ENG 112
HTM elective
OAS 101
OAS 252

Semester III (Fall)
B 207
General elective
HTM elective
HTM elective
Social Science elective

Semester IV (Winter)
General elective
HTM elective
HTM elective
Social science elective
HTM 285
Hospitality and Casino Management Certificate
Program Code: 118  Credit Hours: 31-32  Contact Hours: 31-32
Associate Dean: Robert Marsh

This certificate is designed for students with a serious interest in hospitality, one of the largest and fastest growing industries in northern Michigan. Coursework consists of a combination of traditional, practical business courses and a selection of specialty hospitality courses. Depending on interest, students can design a certificate to help them acquire the specific skills they need.

Students pursuing this certificate may continue on to the Associate of Applied Science in Hospitality. While the program is designed to be particularly attractive to those in the gaming industry, the business and general hospitality courses would be useful for anyone contemplating an entry position in the hospitality business.

Program Requirements  19-20 Credit Hours
B 104  Business Math  3
B 111  Accounting Procedures  or  3
B 211  Accounting Principles I  4
B 161  Introduction to Business  3
COM 111  Speech or  3
COM 170  Interpersonal Communication  3
ENG 111  English Composition I  3
OAS 101  Customer Services  1
OAS 252  Microsoft Office for Windows  3

HTM  Hospitality Management Electives (see below)  12
(choose 12 credit hours)
HTM 121  Introduction to the Hospitality Industry  3
HTM 130  Food and Beverage Management  3
HTM 140  Introduction to Gaming Management  3
HTM 232  Hospitality Law and Ethics  3
HTM 240  Casino Operations and Management I  3
HTM 245  Casino Operations and Management II  3
HTM 250  Casino Risk Management  3

Suggested Sequence for Full-Time Students
Semester I (Fall)
B 104
B 111  or  B 211
ENG 111
HTM elective
HTM elective

Semester II (Winter)
B 161
COM 111  or  170
OAS 101
OAS 252
HTM elective
HTM elective
Hospitality and Hotel
Certificate of Development
Program Code: 117  Credit Hours: 19-20  Contact Hours:  19-20
Associate Dean: Robert Marsh

This certificate of development provides a means by which students interested in the hospitality field can gain basic understanding to allow them to enter the field after one or two semesters of study. The program introduces students to business, communication and customer service skills in addition to entry level hospitality management skills. This is a good program for students either entering the field or those currently working in hospitality who wish to advance.

**Program Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 111</td>
<td>Accounting Procedures or</td>
<td>3</td>
</tr>
<tr>
<td>B 211</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communications</td>
<td>3</td>
</tr>
<tr>
<td>HTM 121</td>
<td>Introduction to the Hospitality Industry</td>
<td>3</td>
</tr>
<tr>
<td>HTM 130</td>
<td>Food and Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>HTM 232</td>
<td>Hospitality Law and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 252</td>
<td>Microsoft Office</td>
<td>3</td>
</tr>
</tbody>
</table>

Contact Hours: 19-20
Marketing
Associate of Applied Science
Program Code: 245  Credit Hours: 60  Contact Hours: 60
Associate Dean: Robert Marsh • Faculty Contact: Chet Jessick

Students will obtain skills in retailing and selling, communication, advertising and business management in preparation for a position in business and industry. Students who demonstrate math competency are exempt from the mathematics requirement. A math course higher than MTH 111 will also meet this requirement. See your program coordinator for approval of other course options.

Course Recommendations:
B 104 Business Math is the preferred option for the mathematics requirement.
COM 170 Interpersonal Communication is the preferred option for the communications requirement.
ECO 111 Macroeconomics is the preferred option for the social science requirement.

General Education Requirements  12-13 Credit Hours
B 104 Business Math  or  3
MTH 111 Beginning Algebra  4
COM 111 Speech  or  3
COM 170 Interpersonal Communication  3
ENG 111 English Composition I  3
ENG 112 English Composition II  3

Program Requirements  37 Credit Hours
B 113 Computer Assisted Accounting  3
B 161 Introduction to Business  3
B 200 Principles of Management  3
B 207 Business Communications  3
B 211 Accounting Principles I  4
B 290 Business Law I  or  3
B 291 Business Law II  3
ECO 111 Macroeconomics  or  3
ECO 112 Microeconomics  3
M 200 Introduction to Marketing  3
M 202 Fundamentals of Advertising  3
M 204 Retailing and Services Management  3
M 205 Principles of Selling: The Relationship and Leadership Edge  3
M 220 Marketing and Management Strategy  3
OAS 252 Microsoft Office for Windows  3

Additional Requirements  5-10 Credit Hours
Select courses from the following list to satisfy the remaining 5-10 credit hours of program requirements:
ART 101 Color Theory  3
ART 109 Basic Drawing and Composition  3
B 212 Accounting Principles II  4
B 290 Business Law I  or  3
B 291 Business Law II  3
CAP 135 Web Design  3
CAP 140 Introduction to Adobe Photoshop  3
CAP 145 Introduction to Adobe Illustrator  3
CAP 150 Introduction to Adobe InDesign  3
ECO 111 Macroeconomics  or  3
ECO 112 Microeconomics  3
M 285 Work-Based Learning  1-2
M 299  Independent Study  3
OAS 101  Customer Service  1
OAS 190  Employability Skills  1
PHO 100  Basic Photography  3
PHO 120  Digital Photography  3
STAT 200  Statistics  3

Suggested Sequence for Full-Time Students

Semester I (Fall)
  B 200
  Social Science course
  ENG 111
  M 200
  B 104  or  MTH 111

Semester II (Winter)
  COM 111  or  COM 170
  ENG 112
  M 202
  B 290  or  B 291
  Additional requirements

Semester III (Fall)
  B 211
  OAS 252
  M 204
  M 205
  Additional requirements

Semester IV (Winter)
  B 207
  B 113
  M 220
  Additional requirements
Marketing Assistant
Certificate
Program Code: 135  Credit Hours: 31  Contact Hours: 31
Associate Dean: Robert Marsh, Faculty Contact: Chet Jessick

This certificate program will provide classroom and field experiences designed to give the student a well-rounded background in preparation for a career in marketing.

Program Requirements  26 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 111</td>
<td>Speech or</td>
<td>3</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>M 200</td>
<td>Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>M 202</td>
<td>Fundamentals of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>M 204</td>
<td>Retailing and Services Management</td>
<td>3</td>
</tr>
<tr>
<td>M 205</td>
<td>Principles of Selling: The Relationship and Leadership Edge</td>
<td>3</td>
</tr>
<tr>
<td>OAS 252</td>
<td>Microsoft Office for Windows</td>
<td>3</td>
</tr>
<tr>
<td>WBL102*</td>
<td>Work-Based Learning</td>
<td>2</td>
</tr>
</tbody>
</table>

* If not on the schedule, contact faculty advisor

Additional Requirements  5 Credit Hours

Select courses from the following list to satisfy the remaining 5 credit hours of program requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 161</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>B 163</td>
<td>Management Practices in Small Business</td>
<td>3</td>
</tr>
<tr>
<td>B 207</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>B 290</td>
<td>Business Law I or</td>
<td>3</td>
</tr>
<tr>
<td>B 291</td>
<td>Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>COM 111</td>
<td>Speech or</td>
<td>3</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>M 220</td>
<td>Marketing and Management Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MTH 119</td>
<td>College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>STAT 200</td>
<td>Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Suggested Sequence for Full-Time Students

Semester I (Fall)
ENG 111
COM 111 or 170 B 161
M 200
M 204
M 205
OAS 252

Semester II (Winter)
ENG 112
B 161
M 202
Additional Requirements
Advertising Assistant
Certificate
Program Code: 110  Credit Hours: 30  Contact Hours: 30
Associate Dean: Robert Marsh • Faculty Contact: Chet Jessick

This program prepares students for an entry-level position in the field of advertising.

Program Requirements  21 Credit Hours
ART 109  Basic Drawing and Composition  3
COM 111  Speech or
COM 170  Interpersonal Communication  3
ENG 111  English Composition I  3
ENG 112  English Composition II  3
M 200  Introduction to Marketing  3
M 202  Fundamentals of Advertising  3
M 205  Principles of Selling  3

Additional Requirements  9 Credit Hours
Select courses from the following list to satisfy the remaining 9 credit hours of program requirements:
B 161  Introduction to Business  3
B 162  Strategic Planning in Small Business  3
B 207  Business Communications  3
CAP  Any Computer Applications Course  3
M 204  Retailing and Services Management  3
M 220  Marketing Management  3
PSY 161  Introduction to Psychology  3
M 285*  Work-Based Learning-Marketing  1-2

*See your program coordinator for approval of other course options or if you need assistance.

Suggested Sequence for Full-Time Students
Semester I (Fall)
ART 109
ENG 111
M 200
M 205
Additional Requirement

Semester II (Winter)
COM 111 or 170
ENG 112
M 202
Additional Requirements
Office Administrative Services
Associate of Applied Science
Program Code: 277  Credit Hours: 60  Contact Hours:  60-61
Associate Dean: Robert Marsh

This program prepares the student to be an administrative assistant. Students will gain a strong foundation in developing and transmitting communication through the use of document processing and electronic record keeping, problem solving and human relations. Opportunities for office administration include but are not limited to banking, communications, education, entertainment, insurance, retailing, allied health, wholesaling, manufacturing, real estate, travel and transportation.

A Medical Office Emphasis (Program Code 270) may be earned by substituting:
OAS 116 for B 161
OAS 216 (or OAS 220 and OAS 221) for additional requirement
OAS 117 for B 111/211

General Education Requirements  12-14 Credit Hours
ENG 111  English Composition I  3
ENG 112  English Composition II  3

Choose two General Education courses from the following:
BIO 133*  Introduction to Human Biology  4
COM 111  Speech  3
COM 170  Interpersonal Communication  3
ECO 111  Macroeconomics  3
PLS 141  Introduction to American Government  3
PSY 161  Introduction to Psychology  3
SPAN 111  Elementary Spanish I  4

*May be satisfied with AH 130

Program Requirements  41-43 Credit Hours
B 104  Business Math  3
B 111  Accounting Procedures  or  3
B 211  Accounting Principles I  4
B 161  Introduction to Business  3
B 207  Business Communications  3
CAP 125  MS Excel I  3
OAS 101  Customer Service  1
OAS 122**  Document Processing I  3
OAS 141  Filing and Records Management  2
OAS 190  Employability Skills  1
OAS 223  Document Processing II  3
OAS 224  Transcription/Editing  4
OAS 241  Administrative Procedures  3
OAS 242  Information Technology  3
OAS 252  Microsoft Office for Windows  3
OAS 254  Desktop Publishing  2
OAS 285  Work-Based Learning-OAS*** 1-2

** OAS 122 has a prerequisite of OAS 121 or equivalent.
*** If OAS 285 is not offered, see your program coordinator.
Additional Requirements  3-7 Credit Hours
Choose from the following list:
B 113  Computer Assisted Accounting  3
B 200  Principles of Management  3
B 290  Business Law I  or  3
B 291  Business Law II  3
CAP 135  Web Page Design  3
OAS 121  Keyboarding and Software Fundamentals  3

Suggested Sequence for Full-Time Students
Semester I (Fall)
B 104
ENG 111
OAS 141
OAS 122
OAS 224

Semester II (Winter)
ENG 112
OAS 101
OAS 223
OAS 241
OAS 252
Additional requirements
(Medical option: OAS 216/220 & 221)

Semester III (Fall)
B 161
(Medical option: OAS 116)
B 207
B 111/211 (Medical option: OAS 117)
OAS 190
OAS 242
OAS 254

Semester IV (Winter)
CAP 125
General Education Course
General Education Course
Additional requirement
General Office Professional
Certificate
Program Code: 165  Credit Hours: 30-31  Contact Hours: 30-31
Associate Dean: Robert Marsh

Prepares the student for a position in a small business, corporate, government, institutional setting or to produce professional office work from home. Coursework includes training in office skills and basic small computer operations. Emphasis is also placed on developing written and oral communication skills.

**Program Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 104</td>
<td>Business Math</td>
<td>3</td>
</tr>
<tr>
<td>B 111</td>
<td>Accounting Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CAP 125</td>
<td>MS Excel or</td>
<td>3</td>
</tr>
<tr>
<td>OAS 224</td>
<td>Transcription/Editing</td>
<td>4</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 122</td>
<td>Document Processing I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 141</td>
<td>Filing and Records Management</td>
<td>2</td>
</tr>
<tr>
<td>OAS 190</td>
<td>Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>OAS 223</td>
<td>Document Processing II</td>
<td>3</td>
</tr>
<tr>
<td>OAS 241</td>
<td>Administrative Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OAS 252</td>
<td>Microsoft Office for Windows</td>
<td>3</td>
</tr>
<tr>
<td>OAS 254</td>
<td>Desktop Publishing for the Office</td>
<td>2</td>
</tr>
</tbody>
</table>

**Suggested Sequence for Full-Time Students**

**Semester I (Fall)**
B 104
B 111
OAS 141
OAS 190
OAS 224 or CAP 125
OAS 254

**Semester II (Winter)**
ENG 111
OAS 101
OAS 122
OAS 223
OAS 241
OAS 252
Office Support Specialist
Certificate of Development
Program Code: 158  Credit Hours: 16  Contact Hours: 16
Associate Dean: Robert Marsh

This certificate provides entry level skills for the student wishing to enter the office workplace. Basic business and written communication skills are taught, as are basic office skills. Ideal for the student wishing to make a career change into the office.

Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 111</td>
<td>Accounting Procedures or Document Processing I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 121</td>
<td>Keyboarding &amp; Software Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>OAS 141</td>
<td>Filing and Records Management</td>
<td>2</td>
</tr>
<tr>
<td>OAS 190</td>
<td>Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>OAS 252</td>
<td>Microsoft Office for Windows</td>
<td>3</td>
</tr>
</tbody>
</table>

Receptionist
Certificate of Development
Program Code: 159  Credit Hours: 16  Contact Hours: 16
Associate Dean: Robert Marsh

This program prepares the student for employment as a receptionist in a business office environment.

Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101</td>
<td>Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 122</td>
<td>Document Processing I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 141</td>
<td>Filing and Records Management</td>
<td>2</td>
</tr>
<tr>
<td>OAS 190</td>
<td>Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>OAS 223</td>
<td>Document Processing II</td>
<td>3</td>
</tr>
<tr>
<td>OAS 241</td>
<td>Administrative Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>
Wooden Boat Building
Associate of Applied Science
Program Code: 290 Credit Hours: 65-66 Contact Hours: 65-66
Associate Dean: Robert Marsh

This is a cooperative agreement between North Central and the Great Lakes Boat Building School in Cedarville, Michigan (GLBBS) whereby students who are enrolled in the full time, nine-month, hands-on boat-building program at GLBBS may receive North Central credit for that program toward this associate’s degree. By completing the required North Central courses, plus the GLBBS curriculum, students can earn this Associate of Applied Science in Wooden Boat Building degree to augment their boat-building skills and improve their marketability. There are a number of opportunities in the national boat building and boat restoration marketplaces to which this partnership will help provide access. The GLBBS program includes courses in woodworking, traditional and composite wooden boat building, basic design, yacht joinery, and boat repair and restoration. Since the GLBBS program is full time, most students choose to enroll in the North Central classes either before or after completing the hands-on program.

Students wishing to apply for federal financial aid should consult with North Central’s Financial Aid office (231-348-6698) before enrolling.

More information on GLBBS, including a description of the nine-month program, can be found at www.greatlakesboatbuilding.org, or by calling Dave Lesh, Director, at 906-484-1081.

Program Requirements

<table>
<thead>
<tr>
<th>NCMC Course Requirements</th>
<th>27-28 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 102 Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 109 Basic Drawing &amp; Composition</td>
<td>3</td>
</tr>
<tr>
<td>B 104 Business Math or MTH 111 Beginning Algebra</td>
<td>3</td>
</tr>
<tr>
<td>B 161 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 100 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 107 Engineering Graphics</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives (choose 6 credits from the following)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B 111 Accounting Procedures</td>
<td>3</td>
</tr>
<tr>
<td>B 162 Strategic Planning in Small Business</td>
<td>3</td>
</tr>
<tr>
<td>B 200 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>ENT 110 Essentials of Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>M 200 Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>PHO 100 Basic Photography</td>
<td>3</td>
</tr>
<tr>
<td>TDT 130 CAD I</td>
<td>3</td>
</tr>
<tr>
<td>TDT 132 CAD III</td>
<td>3</td>
</tr>
<tr>
<td>TDT 140 Architectural CAD</td>
<td>3</td>
</tr>
<tr>
<td>TDT 150 Mechanical CAD</td>
<td>3</td>
</tr>
</tbody>
</table>

NCMC Total 33-34

Great Lakes Boat Building School Curriculum 32 Credit Hours
(will transfer upon receipt of GLBBS transcript and after completion of all NORTH CENTRAL program requirements)
Information Technology and Engineering

Transferring Toward Engineering, AS Degree

Students considering a bachelor’s degree in one of the many engineering disciplines—electrical, mechanical, aeronautical, manufacturing, computer, chemical—should follow these recommendations when fulfilling degree requirements at North Central Michigan College.

Every college and university has its own specific degree requirements for this large array of majors. Students are advised to work closely with an advisor from both North Central and the transfer institution to make sure they choose proper coursework.

Pre-Engineering

Recommendations for fulfilling General Education requirements:
For Natural Science Group A, choose CEM 121 and CEM 122
For Natural Sciences Group B, choose PHY 230 and PHY 231
For Social Sciences Group A, choose ECO 111
For Humanities, choose PHL 102 or PHL 109

Recommendations for Science and Mathematics Electives:
CEM 122 MTH 211
PHY 231 MTH 212
MTH 122 MTH 215
MTH 123

North Central Pre-Engineering:
North Central has developed curriculum guides for students wishing to transfer into Engineering at several Michigan Universities. These guides can be found at http://www.ncmich.edu/catalog/pre_engineering/Preengineering.pdf and cover the following universities:
  • University of Michigan
  • Michigan State University
  • Western Michigan University
  • Lake Superior State University
  • Central Michigan University
  • Michigan Technological University
  • Lawrence Technological University

You should always check with the four year university for the most current information. For more information on the pre-engineering curriculum, contact the Associate Dean of Occupational Programs at rmarsh@ncmich.edu

Recommendations for General Electives:
CIS 115

Transferring Toward Information Technology, AA/AS Degree

Students considering a bachelor’s degree in the areas of Computer Information Systems should consider the following recommendations for fulfilling degree requirements at North Central Michigan College.

Every college and university has its own specific requirements for admitting students to business studies. Admission is often competitive and begins after the student has completed the freshman and sophomore years. Students are...
advised to work closely with an advisor from both North Central and the transfer institution to make sure they choose proper coursework.

Lake Superior State University offers a variety of bachelor’s completion programs in business on the campus of North Central Michigan College. Students considering the LSSU program are advised to follow specific curriculum guide sheets developed by LSSU. Contact Student Services, 231-348-6605, to obtain a guide sheet.

Pre-Computer Information Systems
Recommendations for fulfilling General Education requirements:
For Social Sciences Group A, choose ECO 111
Recommendations for filling General Electives:
ECO 112
B 211
B 212
CIS 100
CIS 105
CIS 115
MTH 119

Computer-Aided Design
Certificate
Program Code: 116 Credit Hours: 30 - 31 Contact Hours: 30-32
Associate Dean: Robert Marsh

This certificate is specifically designed for those students who wish to develop their CAD skills and to incorporate them with more rounded business skills to prepare them for the workplace. Students will have the option of focusing in either Architectural or Mechanical CAD, or of combining them in a certificate. Holders of this certificate will be better equipped to work in the CAD field as a detailer, layout specialist or draftsperson.

Program Requirements

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>27-28 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 125 MS Excel <strong>or</strong></td>
<td>3</td>
</tr>
<tr>
<td>CAP 130 MS Access</td>
<td>3</td>
</tr>
<tr>
<td>CIS 100 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 107 Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111 Beginning Algebra</td>
<td>4</td>
</tr>
<tr>
<td>TDT 130 Introduction to CAD</td>
<td>3</td>
</tr>
<tr>
<td>TDT 132 Advanced CAD</td>
<td>3</td>
</tr>
<tr>
<td>TDT 140 Architectural CAD <strong>or</strong></td>
<td>3</td>
</tr>
<tr>
<td>TDT 150 Mechanical CAD</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose from one of the following 2-3
CAP 135, CIS 104, CIS 105, CIS 140, IT 102

Electives (choose one course from the following) 3
ARC 110 Elements of Architecture
ART 105 Art History I
ART 106 Art History II
B 161 Introduction to Business
B 207 Business Communication
CIS 120 PC Operating Systems
COM 111 Speech
COM 170 Interpersonal Communications
TDT 140 Architectural CAD

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TDT 150 Mechanical CAD 3

Suggested Sequence for Full-Time Students
Semester I (Fall)
CIS 100
ENG 111
ENGR 107
TDT 130
Elective

Semester II (Winter)
CAP 125 or CAP 130
MTH 111
TDT 132 or other TDT course*

Semester III (Fall)
TDT 132 or other TDT course*

* Sequencing of courses will depend on availability. Monitor schedule and meet with your program coordinator.
Computer Information Systems
Associate of Applied Science
Program Code: 243  Credit Hours: 60  Contact Hours: 68-70
Associate Dean: Robert Marsh  Faculty Contact: Hwee-Joo Kam

This course of study includes hands-on lab work with PCs utilizing a variety of network and stand-alone operating systems. Students will get experience with the Internet and computer programming in object-oriented environments. This program will prepare students for immediate employment opportunities. Students wishing to transfer to a four-year institution should plan to work closely with the CIS program coordinator. The field of computer information systems continues to undergo rapid change and students are encouraged to work with their program coordinator at all times. Students who demonstrate math competency are exempt from the mathematics requirement.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>16 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111 Beginning Algebra</td>
<td>4</td>
</tr>
<tr>
<td>PLS 141 Introduction to American Government</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>40 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CIS 104 Introduction to Programming Logic</td>
<td>3</td>
</tr>
<tr>
<td>CIS 105 Visual BASIC Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 115 C++ Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 120 PC Operating System I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 121 PC Operating Systems II*</td>
<td>3</td>
</tr>
<tr>
<td>CIS 140 Introduction to Linux/Unix</td>
<td>3</td>
</tr>
<tr>
<td>CIS 145 ePortal Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 205 C++ Programming II</td>
<td>3</td>
</tr>
<tr>
<td>CIS 215 Database Design and Management</td>
<td>3</td>
</tr>
<tr>
<td>CIS 220 Visual BASIC Programming II</td>
<td>3</td>
</tr>
<tr>
<td>IT 101 Network +</td>
<td>3</td>
</tr>
<tr>
<td>IT 102 Networking Essentials</td>
<td>2</td>
</tr>
<tr>
<td>IT 112 Microsoft Windows Workstations</td>
<td>2</td>
</tr>
</tbody>
</table>

* Will not be offered in 2010-11. Students are advised to take CIS 150

<table>
<thead>
<tr>
<th>Additional Requirements</th>
<th>4 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select courses from the following list to satisfy the remaining 4 credit hours of program requirements:</td>
<td></td>
</tr>
<tr>
<td>CAP 135 Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 225 Introduction to Java Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 240 Linux/Unix System Administration</td>
<td>3</td>
</tr>
<tr>
<td>CIS 297 Special Topics in CIS</td>
<td>1-5</td>
</tr>
<tr>
<td>IT 130 Windows Network Infrastructure</td>
<td>2.5</td>
</tr>
<tr>
<td>OAS 190 Employability Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Electives</th>
<th>4 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 280 Internship/Special Projects</td>
<td>3</td>
</tr>
<tr>
<td>IT 161 Introductory Digital Logic</td>
<td>2</td>
</tr>
<tr>
<td>IT 122 Microsoft Windows Server</td>
<td>2</td>
</tr>
</tbody>
</table>

Suggested Sequence for Full-Time Students
Semester I (Fall)
ENG 111

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CIS 100
CIS 104
COM 170
PLS 141

Semester II (Winter)
CIS 105
CIS 115
CIS 215
ENG 112
MTH 111

Semester III (Fall)
CIS 150**
CIS 140
CIS 205
CIS 220
IT 102
IT 122

Semester IV (Winter)
CIS 120
CIS 145
CIS 280***

Additional Requirements

** Offered in lieu of CIS 121
*** See your program coordinator for Internship options.
Computer Information Systems
Certificate
Program Code: 162  Credit Hours: 33  Contact Hours: 38
Associate Dean: Robert Marsh  Faculty Contact: Hwee-Joo Kam

Acquire entry-level skills that can be applied to any position requiring computer knowledge. The program has been designed with an emphasis on developing the student’s ability to use and apply computer languages and systems in business and industrial applications. Students may continue on in their education or return to complete the CIS associate’s degree.

Program Requirements  33 Credit Hours
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CIS 104</td>
<td>Introduction to Programming Logic</td>
<td>3</td>
</tr>
<tr>
<td>CIS 105</td>
<td>Visual BASIC Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 115</td>
<td>C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 120</td>
<td>PC Operating System</td>
<td>3</td>
</tr>
<tr>
<td>CIS 145</td>
<td>ePortal Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 215</td>
<td>Database Design and Management</td>
<td>3</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>IT 101</td>
<td>Network +</td>
<td>3</td>
</tr>
<tr>
<td>IT 102</td>
<td>Networking Essentials</td>
<td>2</td>
</tr>
<tr>
<td>MTH 111</td>
<td>Beginning Algebra</td>
<td>4</td>
</tr>
</tbody>
</table>

Suggested Sequence for Full-Time Students
Semester I (Fall)
CIS 100
CIS 104
CIS 105
IT 102
Semester II (Winter)
CIS 115
CIS 145
CIS 215
MTH 111
IT 101
Semester III (Fall)
CIS 120
COM 170
Computer Networking
Associate of Applied Science
Program Code: 282  Credit Hours: 63-64  Contact Hours: 66-69
Associate Dean: Robert Marsh  Faculty Contact: Fred Harrington

North Central’s Associate of Applied Science in Computer Networking provides students with both academic study and hands-on experience. Through the College’s membership in the Microsoft Developers Network Academic Alliance (MSDNAA), students have access to Microsoft’s complete line of computer networking products. The hands-on activities help students prepare for certification as a Microsoft Certified Technology Specialist (MCTS) or Microsoft Certified IT Professional (MCITP) Server Administrator or Enterprise Administrator. With the recent addition of Cisco routers and switches, students will gain the knowledge and experience needed to take the Cisco Certified Network Associate (CCNA) examination.

Program requirements may be waived with documented equivalent vendor certifications (e.g., Net+, MCTS or CCNA) for any class below IT 122 with program coordinator approval. Any 100-level or higher course may be used to meet the 63 credit minimum requirement for a degree if any program requirements are waived.

General Education Requirements 16-17 Credit Hours
ENG 111 English Composition I 3
ENG 112 English Composition II 3
B 104 Business Math or any MTH course 100 or above 3 or 4
COM Any COM course 3
OAS 190 Employability Skills 1
SOC Any Social Science course 3

Program Requirements 31 Credit Hours
CIS 100 Introduction to Computers 3
CIS 140 Introduction to Linux/UNIX 3
IT 101* OE Network + 3
IT 102* OE Networking Essentials 2
IT 112* OE Microsoft Windows Workstations 2
IT 122* OE Microsoft Windows Servers 2
IT 130* OE Windows Network Infrastructure 2.5
IT 150* OE Windows Directory Services 2.5
IT 160* OE Advanced Hardware and Routing 3
IT 161* OE Introductory Digital Logic 2
IT 221* OE Designing Windows Networks 6

Program Electives 16 Credit Hours
Must select 6 credits from the following Operating System Electives:
CIS 120 PC Operating Systems I 3
CIS 121 PC Operating Systems II 3
CIS 240 Linux/UNIX System Administration 3

Must select 6 credits from the following Programming Languages Electives:
CIS 104 Introduction to Programming Logic 3
CIS 105 Visual BASIC Programming I 3
CIS 115 C++ Programming I 3
CIS 145 ePortal Development 3
CIS 205 C++ Programming II 3
CIS 215 Database Design and Management 3
CIS 220 Visual BASIC Programming II 3

Must select 4 credits from the following Technical Electives:
IT 270* OE Capstone Project 4
IT 280 Internship / Project 4
IT 299* OE Independent Study 4

*Open Entry: North Central is now offering computer networking (IT) courses in an “open entry” format. This means you may, with instructor approval, sign up for a class designated as “OE” after the standard drop/add date. The open entry format enables you to work at your own pace. With the instructor’s permission, you may register for and begin additional OE courses no later than the end of the 12th week of the semester. Immediate payment will be expected upon enrollment and all OE courses for which you have registered must be completed by the end of the semester. Financial aid restrictions may apply.

All IT courses are scheduled as TBA. This means “to be arranged” and indicates they are self-paced courses. You should see your professor the first week of the semester to set up your personal timetable.

Suggested Sequence for Full-Time Students

Semester I (Fall)
ENG 111
CIS 100
IT 101
IT 102
IT 112
IT 122

Semester II (Winter)
ENG 112
IT 130
IT 150
Social Science course
B 104 or MTH 100 or above
CIS 140

Semester III (Fall)
CIS 140
IT 160
IT 221
OAS 190
Programming Language elective

Semester IV (Winter)
IT 161
IT 270 or 280 or 299
Operating Systems elective
Programming Language elective
COM course
Computer Networking Administrator
Certificate
Program Code: 182 Credit Hours: 30-31 Contact Hours: 30-31
Associate Dean: Robert Marsh Faculty Contact: Fred Harrington

North Central’s combination of Microsoft servers and Cisco networking equipment prepares a student for an entry level position in an existing network environment. Additionally students will be prepared to take some of the Microsoft Certified Technology Specialist (MCTS) examinations.

Program requirements may be waived with documented equivalent vendor certifications (e.g., Net+, MCTS or CCNA) for any class below IT 122 with advisor approval. Any 100-level or higher course may be used to meet the 60 credit minimum requirement for a degree if any program requirements are waived.

Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 104</td>
<td>Business Math or any MTH course 100 or above</td>
<td>3-4</td>
</tr>
<tr>
<td>CIS 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>Any COM</td>
<td>course</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>IT 101*</td>
<td>OE Networking Essentials +</td>
<td>3</td>
</tr>
<tr>
<td>IT 102*</td>
<td>Networking Essentials</td>
<td>2</td>
</tr>
<tr>
<td>IT 112*</td>
<td>Microsoft Windows Workstations</td>
<td>2</td>
</tr>
<tr>
<td>IT 122*</td>
<td>Microsoft Windows Servers</td>
<td>2</td>
</tr>
<tr>
<td>IT 130*</td>
<td>Windows Network Infrastructure</td>
<td>2.5</td>
</tr>
<tr>
<td>IT 131*</td>
<td>OE Windows Web Server</td>
<td>1.5</td>
</tr>
<tr>
<td>IT 141*</td>
<td>OE Managing Windows Networks</td>
<td>4</td>
</tr>
<tr>
<td>OAS 190</td>
<td>Employability Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

*Open Entry: North Central offers computer networking (IT) courses in an “open entry” format. This means you may, with instructor approval, sign up for a class designated as “OE” after the standard drop/add date. The open entry format enables you to work at your own pace. With the instructor’s permission, you may register for and begin additional OE courses no later than the end of the 12th week of the semester. Immediate payment will be expected upon enrollment and all OE courses for which you have registered must be completed by the end of the semester. Financial aid restrictions may apply.

All IT courses are scheduled as TBA. This means “to be arranged” and indicates they are self-paced courses. You should see your professor the first week of the semester to set up your personal timetable.

Suggested Sequence for Full-Time Students
Semester I (Fall)
ENG 111
CIS 100
IT 101
IT 102
IT 112
IT 122

Semester II (Winter)
IT 131
Any COM course
IT 130
IT 141
B 104 or any MTH course
OAS 190
# Geographic Information Systems

**Associate of Applied Science**  
Program Code: 236  Credit Hours: 61-62  Contact Hours: 68-72  
Associate Dean: Samantha McLin

The Geographic Information Systems associate of applied science degree program offers hands-on technical training that prepares graduates for jobs in cartography, computer programming, database management, business development, urban planning, government and defense. GIS technology is used for scientific investigations, resource management, asset management, archaeology, environmental impact assessment, urban planning, cartography, criminology, geographic history, marketing, logistics, and other purposes.

## General Education Requirements  
12 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>PLS 141</td>
<td>Introduction to American Government</td>
<td>3</td>
</tr>
<tr>
<td>COM 111</td>
<td>Speech or COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

## Program Requirements  
39-40 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIS 110</td>
<td>Geographic Information Systems I</td>
<td>3</td>
</tr>
<tr>
<td>GIS 120</td>
<td>Geographic Information Systems II</td>
<td>3</td>
</tr>
<tr>
<td>GIS 130</td>
<td>Applications in Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GIS 150</td>
<td>Global Positioning Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEO 150</td>
<td>Cartography</td>
<td>3</td>
</tr>
<tr>
<td>ESC 210</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GIS 285</td>
<td>Work-Based Learning—GIS</td>
<td>1-2</td>
</tr>
<tr>
<td>BIO 101</td>
<td>Introduction to Bio, or BIO 151 General Bio I, or</td>
<td>4</td>
</tr>
<tr>
<td>BIO 152</td>
<td>General BIO II</td>
<td>4</td>
</tr>
<tr>
<td>GEO 111</td>
<td>Elements of Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEO 121</td>
<td>World Geography</td>
<td>4</td>
</tr>
<tr>
<td>ESC 121</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>STAT 200</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CIS 104</td>
<td>Introduction to Programming Logic</td>
<td>3</td>
</tr>
</tbody>
</table>

## Additional Requirements  
9 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDT 130</td>
<td>CAD I</td>
<td>3</td>
</tr>
<tr>
<td>TDT 132</td>
<td>CAD III (Advanced AutoCAD)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 115</td>
<td>C++ Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 215</td>
<td>Database Design and Management</td>
<td>3</td>
</tr>
<tr>
<td>CIS 105</td>
<td>Visual Basic Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 225</td>
<td>Introduction to Java Programming I</td>
<td>3</td>
</tr>
<tr>
<td>PLS 225</td>
<td>Citizen Politics at Local Level</td>
<td>3</td>
</tr>
<tr>
<td>BIO 220</td>
<td>Natural Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BIO 265</td>
<td>Environmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>M 200</td>
<td>Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>M 220</td>
<td>Marketing and Management Strategy</td>
<td>3</td>
</tr>
<tr>
<td>CAP 135</td>
<td>Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>CAP 210</td>
<td>Advanced Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>B 200</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>B 201</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
</tbody>
</table>
New Media  
Certificate of Development • Program Code: 111 • Credit Hours: 16  • Contact Hours: 16  
Associate Dean: Robert Marsh

This certificate is designed to introduce the student to the exciting area of digital and web-based audio and video recording, editing and presentation. Students will gain hands-on experience in capturing video and audio and preparing them for transfer to the web or other media. This certificate is recommended for anyone interested in earning a credential in this new and rapidly growing field.

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>16 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAP 135 Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>CAP 140 Introduction to Adobe Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CAP 160 Introduction to Digital Audio/Video</td>
<td>3</td>
</tr>
<tr>
<td>CAP 210 Advanced Web Page Design</td>
<td>3</td>
</tr>
<tr>
<td>CAP 215 Advanced Digital Audio/Video</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAS 101</td>
<td></td>
</tr>
<tr>
<td>OAS 190</td>
<td></td>
</tr>
<tr>
<td>SD 107</td>
<td></td>
</tr>
<tr>
<td>SOC 115</td>
<td></td>
</tr>
</tbody>
</table>

OAS 101 Customer Service 1
OAS 190 Employability Skills 1
SD 107 Professional Development Skills 1
SOC 115 Anishinaabek Culture (required for WOCTEP students) 1
Human Services and Social Sciences

Transferring Toward Teacher Certification Programs in Education
Students planning to become teachers must be admitted to a College or School of Education no earlier than their junior year. Teacher education includes Elementary, Secondary and Special Education. The freshman and sophomore years of pre-teaching differ widely between universities, so the student is advised to consult with an academic advisor when choosing courses. All teacher education applicants are required to take and pass all three sections of the Basic Skills portion of the Michigan Test for Teacher Certification (MTTC).

Pre-Teaching: Elementary Education
An elementary education teaching degree from Spring Arbor University is offered in its entirety on the campus of North Central Michigan College. A very specific list of required courses for that program is provided on a curriculum guide sheet. Students must follow the guide for this specific program rather than the recommendations below. To align with new State of Michigan standards, Spring Arbor’s teacher education program will offer a major and minor in Early Childhood Education, beginning in Fall 2011. The ZA endorsement, for teaching in grades Kindergarten through Grade 3, will be discontinued in Fall 2011. The Spring Arbor University elementary education degree includes an optional ZA (early childhood) endorsement for students wishing to specialize in grades Kindergarten through Grade 3 using 12-15 credits from North Central’s Early Childhood Education department offerings. Contact Student Services at 231-348-6605 or Spring Arbor University’s University Center Office at 231-439-6205.

Students wishing to pursue a bachelor’s degree in elementary education at universities other than Spring Arbor should consult with an academic advisor and consider enrolling in these suggested courses while satisfying their general education requirements:

For Communications, choose COM 111
For Social Sciences, choose PSY 161, GEO 121, and PLS 141
For Humanities, choose HST 131, HST 231 or HST 232, ENG 130, ENG 240
For Mathematics, choose MTH 101 and MTH 102
For Electives, consider ART 120, PSY 255, ED 100

Pre-Teaching: Secondary Education
A secondary education teaching degree from Spring Arbor University is offered entirely on the campus of North Central Michigan College. The freshman and sophomore year courses are taken with North Central and include a specific group of courses. Students pursuing this option should closely follow the courses outlined on the curriculum guide sheet available from Student Services at 231-348-6605 or at the Spring Arbor office on campus at 231-439-6203.

Students wishing to pursue a bachelor’s degree in secondary education at universities other than Spring Arbor should consult with an academic advisor and consider enrolling in these suggested courses while satisfying their general education requirements:

For Communications, choose COM 111
For Natural Science Group A, chose either BIO 101 or BIO 133
For Social Sciences, choose PSY 161, PLS 141
For Electives, choose ED 100, PSY 261 and courses building on the teachable major/minor

Michigan Basic Skills Test
This test is administered four times per year at various test sites in Michigan. Some teacher education programs recommend that prospective students take the Michigan Basic Skills Test as early as the October test date of their freshman year; others recommend taking the test early in the sophomore year. These early recommendations allow students who fail part or all of the Basic Skills Test to have a chance to remediate and take it again before their junior year. To learn more about the Michigan Basic Skills Test, test dates and sites, and to register for the Michigan Basic Skills Test, go online to: www.mttc.nesinc.com.
Transferring Toward Human Services, AA Degree

Students considering a bachelor’s degree in the areas of social work, criminal justice, early childhood education, and related human services fields should use these recommendations when fulfilling degree requirements at North Central Michigan College.

Criminal Justice

A bachelor’s degree in Criminal Justice, with Law Enforcement emphasis, is offered by Lake Superior State University. The majority of the coursework can be completed on the campus of North Central Michigan College. Students pursuing this option should closely follow the courses outlined on the curriculum guide sheet available through Student Services (231-348-6605) or the North Central Gaylord office at the University Center at Gaylord.

Students wishing to pursue a bachelor’s degree in criminal justice at universities other than Lake Superior State or Madonna should consult with an academic advisor and consider enrolling in these suggested courses while satisfying their general education requirements:

For Communications, choose COM 111  
For Natural Science Group A, chose either BIO 101 or BIO 133  
For Social Sciences, choose PSY 161, PLS 141, GEO 121  
For Humanities, include REL 100 and PHL 109  
For electives: CIS 100, CJ 101, 102, 120, 130, 202, 207; SOC 120, SOC 171, SOC 230, STAT 200

Early Childhood Education

A bachelor’s degree in Early Childhood Education is available in its entirety through Lake Superior State University on the campus of North Central Michigan College. A list of required courses for that program, incorporating North Central’s Associate of Applied Science in Early Childhood Education, is provided on a curriculum guide sheet. Students should contact the Early Childhood Education Coordinator (231-439-6224), Student Services (231-348-6605) or LSSU’s Petoskey office at 231-348-6623.

Students wishing to pursue the LSSU bachelor’s degree should take the following General Education course:

For Communications, choose COM 111  
For Natural Science, choose BIO 133  
For Social Science, choose SOC 171

Pre-Social Work

Social Work studies, like teacher education, begin in the junior year. There are two options to completing the bachelor’s degree in social work (BSW) in northern Michigan.

Spring Arbor University offers a bachelor’s degree in social work (BSW) that students can complete entirely on the campus of North Central Michigan College. Specific courses are required in the freshman and sophomore years from North Central to enter this degree program. Students should follow the course guide sheets that can be obtained in Student Services (231-348-6605) or through Spring Arbor’s Petoskey office (231-439-6205).

At the University Center at Gaylord, Madonna University offers a bachelor of social work (BSW) degree. A course guide sheet is available through Student Services (231-348-6605) or the North Central office at the Gaylord University Center.

Students wishing to pursue a bachelor’s degree in social work at universities other than Spring Arbor or Madonna should consult with an academic advisor and consider enrolling in these suggested courses while satisfying their general education requirements:

For Communications, chose COM 111  
For Natural Science Group A, choose either BIO 101 or BIO 133  
For Social Sciences, choose PSY 161, SOC 171, ECO 111
Transferring Toward the Social Sciences, AA Degree

Students considering a bachelor’s degree in the areas of geography, political science, psychology, sociology, anthropology, history, economics, and related disciplines should follow these recommendations when fulfilling degree requirements at North Central Michigan College.

Every college and university has its own specific degree requirements for this large array of majors. Students are advised to work closely with an advisor from both North Central and the transfer institution to make sure they choose proper coursework.

Lake Superior State University offers a bachelor’s completion program in liberal studies with emphases in public relations and in public administration, as well as a bachelor’s in individualized studies on the campus of North Central Michigan College. Students considering the LSSU program are advised to follow specific curriculum guide sheets developed by LSSU. Contact Student Services to obtain a guide sheet.

Recommendations for General Electives – choose according to your intended major:

MTH 119
STAT 200
SPAN 111, 112, 211 or FR 111, 112, 211
ANP 110
ANP 130
ANP 161
ANP 210
ECO 111
ECO 112
GEO 111
GEO 121
HST 131
HST 132
HST 270
PLS 141
PLS 200
PSY 161
PSY 241
PSY 255
PSY 261
SOC 120
SOC 161
SOC 230
SOC 271
Criminal Justice
Associate of Applied Science
Program Code: 225 Credit Hours: 60 Contact Hours: 60
Coordinator: James Carter

The AAS degree in Criminal Justice prepares students for employment opportunities in law enforcement, the courts or corrections. Students may take any course numbered 100 or higher to complete the elective credit hours. Students who demonstrate math competency are exempt from the mathematics requirement.

Employee drug testing is the norm in this line of work. Medical screenings are required prior to employment. Law enforcement and corrections require training academy completion prior to State of Michigan certification.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>15-16 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>COM 111 Speech or</td>
<td>3</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>B 104 Business Math or</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111 Beginning Algebra</td>
<td>4</td>
</tr>
<tr>
<td>PLS 141 American Government</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>36 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 101 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CJ 102 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 120 Introduction to Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CJ 130 Police Process</td>
<td>3</td>
</tr>
<tr>
<td>CJ 202 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>CJ 207 Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CJ 210 Current Issues in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 217 Criminal Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CIS 100 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>PHL 109 Contemporary Moral Issues</td>
<td>3</td>
</tr>
<tr>
<td>PSY 161 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 171 Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives 8-9
Any courses numbered 100 or higher

Suggested Sequence for Full-Time Students

Semester I (Fall)
CJ 102
CIS 100
ENG 111
B 104 or MTH 111
Elective

Semester II (Winter)
CJ 101
ENG 112
PSY 161
Elective

Semester III (Fall)
CJ 120
CJ 130
CJ 207
PHL 109
PLS 141

**Semester IV (Winter)**
CJ 202
CJ 210
CJ 217
COM 111 or COM 170
Elective
Criminal Justice
Associate of Applied Science in Law Enforcement
Program Code: 226  Credit Hours: 67  Contact Hours: 67
Coordinator: James Carter
In cooperation with Northwestern Michigan College

This program provides the student with the opportunity to attend a State-certified police academy and graduate from North Central with an Associate of Applied Science degree and Michigan Council on Law Enforcement Standards certification (MCOLES).

Students interested in this program need to apply. Acceptance is competitive and is not guaranteed. A criminal background check is required for admission to the academy. See the North Central Criminal Justice Coordinator for more information. To complete this program within two years, a student will need to attend summer sessions. The second half of the program is completed at Northwestern Michigan College in Traverse City.

Students must take and pass the MCOLES Reading and Writing and Pre-Enrollment Physical Fitness tests prior to starting coursework at Northwestern Michigan College. Both tests are offered regularly at NMC.

<table>
<thead>
<tr>
<th>North Central Michigan College Courses</th>
<th>31 Total NCMC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CJ 101 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CJ 102 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 120 Introduction to Corrections</td>
<td>3</td>
</tr>
<tr>
<td>COM 111 Speech or</td>
<td>3</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111 Beginning Algebra</td>
<td>4</td>
</tr>
<tr>
<td>PLS 141 Introduction to American Government</td>
<td>3</td>
</tr>
<tr>
<td>PSY 161 Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Northwestern Michigan College Courses</th>
<th>36 Total NMC Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LWE 102 Police Operations</td>
<td>4</td>
</tr>
<tr>
<td>LWE 210 Cultural Diversity</td>
<td>2</td>
</tr>
<tr>
<td>LWE 214 Firearms</td>
<td>4</td>
</tr>
<tr>
<td>LWE 218 Physical Training</td>
<td>4</td>
</tr>
<tr>
<td>LWE 226 Michigan Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>HAH 200 Emergency Assessment and Intervention</td>
<td>3</td>
</tr>
<tr>
<td>LWE 212 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>LWE 215 Defensive Driving</td>
<td>3</td>
</tr>
<tr>
<td>LWE 216 Traffic Enforcement</td>
<td>3</td>
</tr>
<tr>
<td>LWE 225 Defensive Tactics</td>
<td>4</td>
</tr>
<tr>
<td>LWE 227 Criminal Procedure</td>
<td>3</td>
</tr>
</tbody>
</table>

Suggested Sequence for Full-Time Students at North Central

Semester I (Fall)
ENG 111
COM 111 or 170
PSY 161
CJ 102
CJ 120

Semester II (Winter)
CJ 101
ENG 112
PLS 141
MTH 111
CIS 100
Criminal Justice

Associate of Applied Science in Law Enforcement

Program Code: 227  Credit Hours: 63  Contact Hours:  63
Coordinator: James Carter

In cooperation with Kirtland Community College

This program provides North Central students the opportunity to attend a State-certified police academy and graduate from North Central with an Associate of Applied Science degree and Michigan Council of Law Enforcement Standards (MCOLES) certification.

Students attend North Central for approximately three semesters and then enter the Kirtland Regional Police Academy to complete their training. The academy has two full-time, 17-week sessions, one beginning in January and one in July of each year.

Students interested in this program need to apply. Acceptance is competitive and is not guaranteed. A criminal background check is required for admission to the academy. See the North Central Criminal Justice Coordinator for more information.

Students must take and pass the MCOLES Reading and Writing and Pre-Enrollment Physical Fitness tests prior to starting coursework at Kirtland Community College. Both tests are offered regularly at KCC.

North Central Michigan College Courses 42 Total NCMC Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 100</td>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>CJ 101</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CJ 102</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 120</td>
<td>Introduction to Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CJ 130</td>
<td>Police Process</td>
<td>3</td>
</tr>
<tr>
<td>CJ 210</td>
<td>Current Issues in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>COM 111</td>
<td>Speech or Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111</td>
<td>Beginning Algebra</td>
<td>4</td>
</tr>
<tr>
<td>PE 116/216</td>
<td>Physical Training</td>
<td>2</td>
</tr>
<tr>
<td>PLS 141</td>
<td>Introduction to American Government</td>
<td>3</td>
</tr>
<tr>
<td>PSY 161</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 171</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Kirtland Community College Police Academy courses (17 weeks) 21

Suggested Sequence for Full-Time Students at North Central

Semester I (Summer)
Starting semester to enter the following July academy

CIS 100
PSY 161
MTH 111

Semester II (Fall)

CJ 102
CJ 120
CJ 130
CJ 210
ENG 111 or 112 **
PE 116/PE 216 *

**Semester III (Winter)**
Starting semester to enter the following January academy
CJ 101
COM 111 or 170
ENG 111 or 112 **
PE 116/PE 216 *
PLS 141
SOC 171
*PE 116 must be taken before PE 216
** Depending on the starting semester
Law Enforcement Aide
Certificate
Program Code: 125  Credit Hours: 31  Contact Hours: 31
Coordinator: James Carter

Prepares the student for employment in a police or sheriff’s department or institutions such as prisons or security companies. With a strong demand for aides who provide clerical support to relieve law enforcement officers of the burden of paperwork and other tasks, individuals with specialized training are considered highly employable.

Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 104 Business Math</td>
<td>3</td>
</tr>
<tr>
<td>CAP 101 Internet Searching and Researching</td>
<td>1</td>
</tr>
<tr>
<td>CJ 101 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CJ 102 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 101 Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 121 Keyboarding or OAS 122* Document Processing I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 141 Filing and Records Management</td>
<td>3</td>
</tr>
<tr>
<td>OAS 241 Administrative Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OAS 252 Microsoft Office for Windows</td>
<td>3</td>
</tr>
<tr>
<td>OAS 285** Work-Based Learning – OAS</td>
<td>3</td>
</tr>
</tbody>
</table>

* OAS 121 or equivalent is the prerequisite for OAS 122
** If OAS 285 is not offered, see program coordinator

Suggested Sequence for Full-Time Students

Semester I (Fall)
ENG 111
COM 170
CJ 102
OAS 141
OAS 121 or 122
CAP 101

Semester II (Winter)
B 104
CJ 101
OAS 101
OAS 252
OAS 241
WBL 102
Corrections (State)
Certificate of Development
Program Code: 127    Credit Hours: 15    Contact Hours: 15
Coordinator: James Carter

Minimum training and education requirements for the certification of local corrections officers (persons employed by a county sheriff in a local correctional facility as a corrections officer) have been established by the Michigan Sheriffs Coordinating and Training Council under the provisions of Act No. 125 of the Public Acts of 2003. North Central is evaluating whether or not it will offer a local corrections officer certification program once the minimum requirements have been established. Students interested in such a program should contact North Central’s Criminal Justice Program coordinator for more current information.

This 15-credit hour program provides students with the minimum academic credits* necessary for employment as a Corrections Officer with the Michigan Department of Corrections (MDOC). Students may take the State “Entry-Level Security Exam” at any time by submitting an application to the Michigan Department of Civil Service.** Students who meet the educational requirements and pass the Civil Service examination will be eligible for further consideration.

Prior to being offered a position, a student must submit to a thorough background investigation. If offered a position, the student must also pass a medical exam, a drug screen and a physical fitness test. Certification as a Corrections Officer also requires successful completion of a 320-hour training academy conducted by the MDOC and two months of on-the-job training.

* Credits must be earned before employment. Possession of 30 semester credits in any major, earned prior to one’s date of hire is also acceptable.

** The Civil Service examination is waived for those holding any bachelor’s degree.

Program Requirements 15 Credit Hours

<table>
<thead>
<tr>
<th>Program Requirement</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 120 Introduction to Corrections</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus a total of 12 credits selected from the following courses:

<table>
<thead>
<tr>
<th>Program Requirement</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 101 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CJ 102 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CJ 130 Police Process</td>
<td>3</td>
</tr>
<tr>
<td>CJ 202 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>CJ 207 Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>PSY 161 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 241 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 120 Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 171 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 208 Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>SOC 230 Race and Ethnicity</td>
<td>3</td>
</tr>
<tr>
<td>SOC 250 Deviant Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>
Early Childhood Education
Associate of Applied Science
Program Code: 280
Credit Hours: 60-61  Contact Hours: 62-63
Coordinator: JoAnna Kolodziej

This degree is designed for students who plan to teach young children from birth to age eight in a variety of settings. It prepares students to teach in early childhood programs such as Head Start, preschools, and child care centers. It meets current licensing qualifications for Child Care Center Directors and lead teachers. It satisfies the requirements for classroom instructional aides in public schools.

The AAS in Early Childhood Education satisfies the MACRAO Transfer Agreement for students considering a bachelor’s degree in Early Childhood Education, Family Studies, Social Work, or Elementary Teacher Education with an Early Childhood Education Major, Minor, or ZA Endorsement option. The student is advised to refer to the senior institution’s program requirements and seek joint advising from the ECE Program Coordinator and the transfer institution.

An elementary education teaching degree with an early childhood education ZA endorsement option (changing to a major and minor in Elementary Education in Fall 2011) is offered in its entirety on the campus of North Central Michigan College from Spring Arbor University. Students are advised to work closely with the Early Childhood Education Program Coordinator and Spring Arbor University in course selections.

A bachelor’s degree in Early Childhood Education is available in its entirety through Lake Superior State University on the campus of North Central Michigan College. A list of required courses for that program, incorporating North Central’s Associate of Applied Science in Early Childhood Education, is provided on a curriculum guide sheet. Students should contact the Early Childhood Education Coordinator (231-439-6224), Student Services (231-348-6605) or LSSU’s Petoskey office at 231-348-6623.

Students need to have transportation to and from field placement experiences, meet state licensing requirements for adults working with children in child care settings, complete a placement background check and perform within the guidelines of the participating agencies during field placements in ECE 282 practicum/seminar. Students currently certified in First Aid/CPR may file a course waiver for EMS 101 in Student Services or with the ECE Program Coordinator prior to graduation.

Courses marked with # meet the formal training requirements for the CDA Credential. Students must independently pursue CDA certification through the Council for Professional Recognition (www.cdacouncil.org).

Students interested in this program should contact the Program Coordinator for advising.

General Education Requirements

ENG 111 English Composition I  3
ENG 112 English Composition II  3
COM 111* Speech  or  3
COM 170 Interpersonal Communication  3

Natural Science Lab Course: Choose one from Group B** or
Four or more credits in MTH 100 or above.  4

Natural Science Lab Course: Choose one from Group A**  4

Two Humanities Courses from two disciplines: Choose one from Group A**  6

Social Science Course: Choose one from Group A**  3

*Required for Spring Arbor University and Lake Superior State University transfer and recommended for all other transfers.
** Suggested for Transferability

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11  revised 11-24-2010
Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 105</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 110</td>
<td>Curriculum and Methods</td>
<td>3</td>
</tr>
<tr>
<td>ECE 120</td>
<td>Administration Of Early Childhood Programs</td>
<td>3</td>
</tr>
<tr>
<td>ECE 130</td>
<td>Child Guidance/Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>ECE 210</td>
<td>Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE 220</td>
<td>Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>ECE 282**</td>
<td>ECE Practicum/Seminar</td>
<td>7</td>
</tr>
<tr>
<td>EMS 101*</td>
<td>CPR and First Aid (or current certification)</td>
<td>0-1</td>
</tr>
<tr>
<td>ENG 240</td>
<td>Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>PSY 255</td>
<td>Child Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

SOC 271      | Marriage and the Family                          | 3       |

*Course may be waived (requirements met, but course credit not given) if a student presents documentation of current CPR and First Aid certification. Students must earn a minimum of 60 credit hours to be granted an associate’s degree from North Central.

** Prior to enrolling in ECE 282, students must meet with the ECE Program Coordinator for required field placement forms and a program audit.

* ECE 120 and ECE 210 are required by State of Michigan Licensing Rules for Child Care Centers.

Suggested Sequence for Full-Time Students

**Semester I (Fall)**
Social Science Course: Group A
ECE 105
ECE 110
ECE 130
ENG 111

**Semester II (Winter)**
ECE 120
COM 111
EMS 101
ENG 112
PSY 255
ECE 210

**Semester III (Fall)**
ECE 220
ENG 240
Natural Science Lab
SOC 271
Humanities Course Group A

**Semester IV (Winter)**
ECE 282
Humanities course (2 disciplines)
Natural Science course or 4 or more credits in MTH 100 or above.
Early Childhood Education
Certificate
Program Code: 173  Credit Hours: 30-31  Contact Hours: 30-31
Coordinator: JoAnna Kolodziej

This certificate is equivalent to the CDA Credential and prepares students to work with young children, birth to age 8, in a variety of settings. This certificate serves as the first year of the two-year associate’s degree for students choosing to continue in Early Childhood Education. See the AAS program description for additional program requirements and policies.

Courses marked with # meet the formal training requirements for the CDA credential. Students must independently pursue CDA certification through the Council for Professional Recognition (www.cdacouncil.org).

Students interested in this program should contact the Program Coordinator for advising.

Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 111*</td>
<td>Speech or</td>
<td>3</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECE 105</td>
<td>Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 110 #</td>
<td>Curriculum and Methods</td>
<td>3</td>
</tr>
<tr>
<td>ECE 120 #</td>
<td>Administration of Early Childhood Programs</td>
<td>3</td>
</tr>
<tr>
<td>ECE 130 #</td>
<td>Child Guidance/Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>ECE 210</td>
<td>Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>EMS 101*</td>
<td>CPR and First Aid (or current certification)</td>
<td>0-1</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>PSY 255 #</td>
<td>Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Course: Choose one from Group A</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

* Course may be waived (requirements met, but course credit not given) if student presents documentation of current CPR and First Aid certification. Students requesting waiver of EMS 101 must still earn a minimum of 30 credit hours in order to be granted a certificate.

Suggested Sequence for Full-Time Students

Semester I (Fall)
ECE 105
ECE 110
ECE 130
ENG 111
Social Science Course: Group A

Semester II (Winter)
ECE 120
ECE 210
EMS 101 (if needed)
COM 111 or COM 170
ENG 112
PSY 255
Early Childhood Education
Certificate of Development
Program Code: 170 Credit Hours: 18 Contact Hours: 18
Coordinator: JoAnna Kolodziej

The 18 credit hour certificate satisfies the Early Childhood Education coursework requirement for child care center program directors who also satisfy the additional educational qualifications specified in current licensing rules. ECE 120, Administration of Early Childhood Programs, and ECE 210, Infants and Toddlers, are required by State Licensing Rules for Child Care Centers. Courses marked with # meet the formal training requirements for the CDA credential. Students must independently pursue CDA certification through the Council for Professional Recognition (www.cdacouncil.org). Students interested in this program should contact the Program Coordinator for advising. The student will choose 18 credits from the following:

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>18 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 120 Administration of Early Childhood Programs</td>
<td>3</td>
</tr>
<tr>
<td>ECE 210 Infants and Toddlers</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose remaining 12 credits from:

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>18 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 105 Foundations of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE 110# Curriculum and Methods</td>
<td>3</td>
</tr>
<tr>
<td>ECE 130# Child Guidance/Communication Skills</td>
<td>3</td>
</tr>
<tr>
<td>ECE 220 Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>PSY 255# Child Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
Legal Assistant  
Associate of Applied Science  
Program Code: 276  Credit Hours: 65  Contact Hours: 65  
Coordinator: Bridget Brown-Powers  

The Legal Assistant program is designed to train individuals to be qualified to work in a variety of environments. The roles and job responsibilities of a legal assistant vary depending on the employment setting and emphasis. Areas of employment for graduates include litigation, corporate law, criminal law, governmental offices and real estate.

To be successful in the program, a student should have a strong work ethic, strong verbal and written communication skills, be well-organized and detail-oriented, possess excellent ethics, be self-motivated, have good human relations skills, and be able to think logically.

**General Education Requirements**  

16 Credit Hours  
COM 170 Interpersonal Communication  3  
ENG 111 English Composition I  3  
ENG 112 English Composition II  3  
MTH 113 Intermediate Algebra  4  
PLS 141 Introduction to American Government  3

**Program Requirements**  

49 Credit Hours  
B 211 Accounting Principles I  4  
B 290 Business Law I  3  
B 291 Business Law II  3  
CJ 207 Criminal Law  3  
LA 200 Law Office Management and Legal Ethics  3  
LA 201 Research, Writing and Analysis I  3  
LA 202 Research, Writing and Analysis II  3  
LA 203 Litigation Preparation and Procedure  3  
LA 204 Civil Procedure and Rules of Evidence  3  
LA 205 Real Estate Law  3  
LA206 Probate Law  3  
LA 207 Family Law  3  
LA208 Tort Law  3  
LA 210 Internship  3  
PHL 101 Introduction to Philosophy or  3  
PHL 102 Introduction to Logic  3  
PSY 161 Introduction to Psychology or  3  
SOC 171 Introduction to Sociology  3  

**Total Credit Hours**  

65

**Suggested Sequence for Full-Time Students**

Semester I (Fall)  
ENG 111  
LA 200  
LA 201  
PSY 161 or SOC 171  
PLS 141

Semester II (Winter)  
COM 170  
ENG 112  
LA 202
LA 203
MTH 113
PHL 101 or 102

**Semester III (Fall)**
B 211
B 290
CJ 207
LA 204
LA 205

**Semester IV (Winter)**
B 291
LA 206
LA 207
LA 208
LA 210
Legal Assistant
Certificate of Development
Program Code: 177  Credit Hours: 21-22  Contact Hours: 21-22
Coordinator: Bridget Brown-Powers

This certificate of development program is ideal for those students currently working in an office environment, or those wishing to enter such a setting. Students will gain a basic understanding of the legal field while improving business and written communication skills.

Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>B 111</td>
<td>Accounting Procedures or</td>
<td>3</td>
</tr>
<tr>
<td>B 211</td>
<td>Accounting Principles I</td>
<td>4</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>LA 200</td>
<td>Law Office Management and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>LA 201</td>
<td>Research Writing &amp; Analysis I</td>
<td>3</td>
</tr>
<tr>
<td>LA 203</td>
<td>Litigation Preparation &amp; Procedure</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA 205</td>
<td>Real Estate Law</td>
</tr>
<tr>
<td>LA 206</td>
<td>Probate Law</td>
</tr>
<tr>
<td>LA 207</td>
<td>Family Law</td>
</tr>
<tr>
<td>LA 208</td>
<td>Tort Law</td>
</tr>
</tbody>
</table>
Health Sciences and Allied Health

Transferring Toward Medical, Health Sciences, AS Degree

Students considering a bachelor’s degree in the areas of pre-medicine, pre-dentistry, pre-veterinary medicine, pre-pharmacy, physical therapy, physician’s assistant, health fitness, dietetics and nutrition, or other related health fields should follow these recommendations when fulfilling degree requirements at North Central Michigan College.

Every college and university has its own specific degree requirements for this large array of majors. Admittance into some of these fields, such as physical therapy and physician’s assistant, begin at the junior year and are very competitive. Students are advised to work closely with an advisor from both North Central and the transfer institution to make sure they choose proper coursework.

Pre-Medicine, Pre-Dentistry, Pre-Veterinary Medicine, Pre-Pharmacy

Recommendations for fulfilling General Education requirements:
For Natural Sciences Group A, choose BIO 151, and for Group B choose CEM 121

Recommendations for fulfilling Science and Mathematics electives:
BIO 152
CEM 122
CEM 231
CEM 232
PHY 210
PHY 211
MTH 123
MTH 122

Pre-physical therapy & Pre-physician’s assistant

Recommendations for fulfilling General Education requirements:
For Natural Sciences Group A, choose BIO 235, and for Group B, choose CEM 121
For Social Sciences Group A, choose PSY 161
Recommendations for fulfilling Science and Mathematics electives:
BIO 236
CEM 121
CEM 122
PSY 261
PHY 210*
PHY 211*
CEM 231**
* Only for Physical Therapy
** Only for Physician’s Assistant
Certified Nurse Aide
Certificate
Program Code: 197   Credit Hours: 18   Contact Hours: 20
Director: Peter Olson

Students who complete this program will earn a college certificate and will be eligible to take the certified nurse aide (CNA) examination in the State of Michigan. Graduates will be prepared for immediate employment in long-term care facilities, home health care, physician’s offices and hospitals.

CNA training includes classroom instruction, hands-on practice in a clinical laboratory, and clinical instruction in a long-term care facility. The CNA training class may be offered in both four-week and semester formats. The other classes may be taken either in conjunction with the CNA training or separately. Students will be required to meet immunization standards of the clinical facilities and will be subject to a criminal background check.

Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 154 Certified Nurse Aide Training</td>
<td>5</td>
</tr>
<tr>
<td>ENG 111 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>OAS 116 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSY 161 Introduction to Psychology or SOC 171 Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAS 101 Customer Service</td>
<td>1</td>
</tr>
<tr>
<td>OAS 190 Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>SD 107 Professional Development Skills</td>
<td>1</td>
</tr>
<tr>
<td>SOC 115Anishinaabek Culture (required for WOCTEP students)</td>
<td>1</td>
</tr>
</tbody>
</table>
Emergency Medical Services/Paramedic

Associate of Applied Science
Program Code: 253  Credit Hours: 60  Contact Hours:
Director: Peter Olson

This associate degree program is designed to prepare students to function at an advanced level for pre-hospital emergency support services. Students will be expected to complete a rigorous course of study and meet minimum requirements established by the National EMS Curriculum and the State of Michigan. The program also requires students to commit time beyond the classroom to complete program requirements and expectations. Students must be admitted to the College and have completed assessment testing to enroll in this program. The sequence of courses will be offered every year beginning in January. Courses will be offered over approximately an 18-month period.

The paramedic program itself begins with EMS 120. Students who have successfully completed an EMT-Basic class (EMS 110 or its equivalent; proof of successful course completion is required), but who are not registered as an EMT-Basic or who do not yet have a license as an EMT-Basic may enroll in EMS 120. Since EMS 120 also prepares the student to sit for registry examinations as an EMT-Specialist, after successfully completing EMS 120, students may elect to leave the program and work as an EMT-Specialist after completing the necessary registry examinations and gaining state licensure. These students may re-enter the EMS/Paramedic program within one year without re-taking EMS 120.

Students who already possess National Registry status as an EMT-Specialist or possess a Michigan EMT-Specialist license must begin the paramedic program with EMS 120 unless they completed EMS 120 at North Central within one year of the time of registration into EMS 130.

All EMS/Paramedic program courses must be completed with at least a “C.”

Prerequisites
EMS 110 or current Michigan EMT Basic License.
Placement into ENG 111 and MTH 096/106

General Education Requirements 17 Credit Hours
ENG 111 English Composition I 3
ENG 112 English Composition II 3
MTH 111 Beginning Algebra 4
COM 170 Interpersonal Communication 3
CEM 101 Fundamentals of Chemistry 4

Students who demonstrate math competency (ACT of 21 or 22, Compass of 146) are exempt from the mathematics requirement.

Program Requirements 43 Credit Hours
EMS 120 Paramedic 1 6
BIO 133 Human Biology with Lab + 4
EMS 130 Paramedic 2 9
EMS 220 Paramedic 3 10
EMS 230 Paramedic 4 10
EMS 270 Paramedic Field Internship 4

+ to be taken before or concurrently with EMS 120
All EMS/Paramedic program courses must be completed with at least a “C.”
Emergency Medical Services/Paramedic
Certificate
Program Code: 153  Credit Hours:  43 Contact Hours: 60
Director: Peter Olson

This certificate program is designed to prepare students to function at an advanced level for pre-hospital emergency support services. Students will be expected to complete a rigorous course of study and meet minimum requirements established by the National EMS Curriculum and the State of Michigan. The program also requires students to commit time beyond the classroom to complete program requirements and expectations.

Students must be admitted to the College and have completed assessment testing to enroll in this program. The sequence of courses will be offered every year beginning in January. Courses will be offered over approximately an 18-month period.

The paramedic program itself begins with EMS 120. Students who have successfully completed an EMT-Basic class (EMS 110 or its equivalent; proof of successful course completion is required), but who are not registered as an EMT-Basic or who do not yet have a license as an EMT-Basic may enroll in EMS 120. Since EMS 120 also prepares the student to sit for registry examinations as an EMT-Specialist, after successfully completing EMS 120, students may elect to leave the program and work as an EMT-Specialist after completing the necessary registry examinations and gaining state licensure. These students may re-enter the EMS/Paramedic program within one year without re-taking EMS 120.

Students who already possess National Registry status as an EMT-Specialist or possess a Michigan EMT-Specialist license must begin the paramedic program with EMS 120 unless they completed EMS 120 at North Central within one year of the time of registration into EMS 130.

All EMS/Paramedic program courses must be completed with at least a “C.”

Prerequisites
EMS 110 or current Michigan EMT Basic License
Placement into ENG 111 and MTH 096/106

Program Requirements: 43 Credit Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 120 Paramedic 1</td>
<td>6</td>
</tr>
<tr>
<td>BIO 133 Human Biology with Lab +</td>
<td>4</td>
</tr>
<tr>
<td>EMS 130 Paramedic 2</td>
<td>9</td>
</tr>
<tr>
<td>EMS 220 Paramedic 3</td>
<td>10</td>
</tr>
<tr>
<td>EMS 230 Paramedic 4</td>
<td>10</td>
</tr>
<tr>
<td>EMS 270 Paramedic Field Internship</td>
<td>4</td>
</tr>
</tbody>
</table>

+ Must be taken before or concurrently with EMS 120.

All EMS/Paramedic program courses must be completed with at least a “C.”
Basic Emergency Medical Services
Certificate of Development
Program Code: 152  Credit Hours: 16  Contact Hours: 19
Director: Peter Olson

This is the EMT Basic option. It is a Certificate of Development offering which requires an application to the College for admission, COMPASS testing, a physical exam, up-to-date immunizations including Hepatitis B, and a criminal background check. This program will allow the student to complete basic EMT training and be eligible for financial aid. This EMT basic course of study (or the equivalent) is needed to go on to the associate degree program.

Program Requirements 16 Credit Hours
EMS 110 EMT Basic 9
MTH 106/111 Beginning Algebra 4
ENG 111 English Composition I 3

Emergency Medical Technician
Non-Degree
Program Code: 053  Credit Hours: 9  Contact Hours: 12
Director: Peter Olson

This is a non-credit course offering which requires an application to the College for admission. No assessment testing is required. A physical exam, up-to-date immunizations including Hepatitis B and a criminal background check are required. This is for students who do not want financial aid.

EMS 110 EMT Basic 9 Credit Hours
Medical Assistant
Certificate
Program Code: 180  Credit Hours:  32-34  Contact Hours:  34  
Director: Peter Olson

Medical Assistant training provides diverse employment opportunities. Students in this program can develop skills necessary for entry-level employment in the health care field. Special emphasis is placed on increasing skills needed to work in physicians’ offices and health clinics. Students must complete a minimum of 31 credit hours to earn a certificate in Medical Assisting. This program also has a work-based learning component.

Upon successful completion of the program and graduation from North Central Michigan College, students are eligible to take the Registered Medical Assistant certification examination offered by American Medical Technologies.

This is a selective admission program. Students must apply for entry into the program each time they wish to be considered (i.e., applications will not be kept on file from one application period to the next). To be considered for acceptance, students must be enrolled at North Central, have completed program prerequisites and have completed an application for acceptance in the MA program. Applications must be submitted to the Director of Allied Health by March 1, for fall enrollment and October 1 for winter enrollment. Criteria for admission include completion of prerequisites, a minimum of a C+ in prerequisite courses, and work experience. Acceptance is not guaranteed.

Students may not enroll in AH 107, AH 108, AH 285 and AH 290 until they are accepted into the MA program.

North Central will order a criminal background check on all students accepted into the program. Students may be denied admission based on the results of the background check.

Additional information:

1. AH 130 and OAS 116 are prerequisites for entry. Students are strongly encouraged to complete B 104 prior to enrolling in the program.

2. B 104 or MTH 096/106 or MTH 111 is a prerequisite for AH 180.

3. AH 107 must be completed before enrollment into Work-Based Learning AH 285.

4. OAS 216 must be completed before enrollment into Work-Based Learning AH 290.

5. Students must have current CPR/BLS as a professional training prior to the start of work-based learning courses. North Central’s EMS 101, CPR & First Aid, satisfies this requirement.

6. Students must have basic computer skills, ability to type at 30 wpm and use a computer mouse, access to the Internet, and knowledge of word-processing programs.

Prerequisite(s):
OAS 116 Medical Terminology 3
AH 130 Body Systems and Diseases 3

<table>
<thead>
<tr>
<th>Program Requirements</th>
<th>32-34 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 107 Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>AH 108 Medical Office Procedures II</td>
<td>2</td>
</tr>
<tr>
<td>B 104 Business Math or MTH 096/106 Pre-Algebra &amp; Beginning Algebra or MTH 111 Beginning Algebra or Higher</td>
<td>3 or 4</td>
</tr>
<tr>
<td>AH 180 Pharmacology for Medical Assistants</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
</tbody>
</table>
OAS 101 Customer Service 1
OAS 190 Employability Skills 1
OAS 141 Filing and Records Management 2
OAS 216 Medical Billing or 3
OAS 220 + OAS 221 4

AH 285 Work-Based Learning Medical Assistant I* 2
AH 290 Work-Based Learning Medical Assistant II ** 2
*Must complete AH 107 and AH 180 prior to enrolling in this class.
**Must complete OAS 216 (or OAS 220 + OAS 221) prior to placement in this class.

Choose one course from the following:
CAP 100 Computers for the Very Beginner 1
OAS 110 Keyboarding Fundamentals 1
SD 107 Professional Development Skills 1
SOC 115 Anishinaabek Culture (required for WOCTEP students) 1

Suggested Sequence for Full-Time Students

Semester I
(prior to acceptance into the MA Program)

OAS 116
AH 130
B 104
OAS 101

Semester II
(after acceptance into the MA Program)
AH 107
AH 180
OAS 141
OAS 216

Semester III
AH 285
AH 108
OAS 190
ENG 111

Semester IV
AH 290

Suggested Sequence for Part-Time Students

Semester I
OAS 116
AH 130
B 104

Semester II
AH 107
AH 180
ENG 111
Semester III
AH 285
OAS 141
OAS 216
AH 108

Semester IV
AH 290
OAS 190
OAS 101
Medical Billing and Coding
Certificate of Development
Program Code: 179    Credit Hours: 16    Contact Hours: 16-17
Associate Dean: Robert Marsh

This certificate is designed for students interested in the high-demand and fast-growing field of medical billing and coding. Both private and government insurance companies are insisting on accurate and consistent medical records and on precise coding to assure proper reimbursement. The coder/biller is critical to the successful operation of clinics, doctors’ offices and hospitals. This certificate provides the skills students need to seek entry-level employment in this field.

There are two main certification organizations for this professional: the American Health Information Management Association (www.ahima.org) and the American Academy of Professional Coders (www.aapc.com). Students are encouraged to investigate and pursue certification opportunities.

The majority of the classes for this certificate are normally offered online, as indicated by the “OL” designation below. Consult each semester’s schedule.

Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 133**</td>
<td>Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>OAS 116</td>
<td>Medical Terminology OL</td>
<td>3</td>
</tr>
<tr>
<td>OAS 190</td>
<td>Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>OAS 220*</td>
<td>Beginning Medical Coding OL</td>
<td>2</td>
</tr>
<tr>
<td>OAS 221*</td>
<td>Beginning Medical Billing OL</td>
<td>2</td>
</tr>
<tr>
<td>OAS 230</td>
<td>Advanced Medical Coding ICD-9-CM OL</td>
<td>2</td>
</tr>
<tr>
<td>OAS 231</td>
<td>Advanced Medical Coding CPT OL</td>
<td>2</td>
</tr>
</tbody>
</table>

* OAS 220 and OAS 221 can be satisfied with OAS 216
** Can be satisfied with AH 130

Students are encouraged to complete BIO 133/AH 130 and OAS 116 prior to taking the Coding and Billing classes.
Medical Transcriptionist
Certificate
Program Code: 163  Credit Hours: 30  Contact Hours: 30-31
Associate Dean: Robert Marsh

This program prepares the student for an entry-level medical transcriptionist’s position in a physician’s practice or hospital/clinic setting. Medical transcriptionists fulfill an important role in the health care field. They must possess knowledge of medical terms and procedures, and have skill with computers and software to be successful.

Program Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 133* Human Biology with Lab</td>
<td>4</td>
</tr>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 116 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>OAS 117 Medical Transcription</td>
<td>3</td>
</tr>
<tr>
<td>OAS 122 Document Processing I</td>
<td>3</td>
</tr>
<tr>
<td>OAS 141 Filing and Records Management</td>
<td>2</td>
</tr>
<tr>
<td>OAS 190 Employability Skills</td>
<td>1</td>
</tr>
<tr>
<td>OAS 216** Medical Insurance and Billing</td>
<td>3</td>
</tr>
<tr>
<td>OAS 223 Document Processing II</td>
<td>3</td>
</tr>
<tr>
<td>OAS 224 Transcription and Editing</td>
<td>4</td>
</tr>
<tr>
<td>OAS 285*** Work-Based Learning-OAS</td>
<td>2</td>
</tr>
</tbody>
</table>

* May be satisfied with AH 130
** May be satisfied with OAS 220 & OAS 221
*** If OAS 285 is not on the schedule, see faculty advisor.

Suggested Sequence for Full-Time Students

Semester I (Fall)
ENG 111
OAS 116
OAS 122
OAS 224
OAS 141

Semester II (Winter)
BIO 133 or AH 130
OAS 117
OAS 190
OAS 216
OAS 223
Nursing
Associate of Applied Science
Program Code: 250
Associate Dean: Mary Miles
Credit Hours: 78-85 Contact Hours: Variable

North Central offers the Associate of Applied Science in Nursing degree for students entering nursing education for the first time. LPNs typically enter the second year as full-time students by completing specified nursing courses and meeting related institutional requirements. This may vary depending upon experience. See LPN Student Plan of Study.

A nursing degree provides diverse opportunities for challenging jobs and advancement. Upon successful completion of North Central’s Michigan Board of Nursing-approved program, students will be eligible to write the National Council Licensure Examination (NCLEX) for Registered Nurses. This is a very competitive program. Meeting program requirements and applying to the nursing program do not guarantee admission. Enrollment in any nursing course requires acceptance into the nursing program. Applications must be submitted by December 1 of the year prior to anticipated fall semester entry. Upon acceptance into the program, students will be required to have a criminal background check completed by the State of Michigan.

Students may be denied admission based on the results of the background check.

Non-nursing courses may be taken before entry. Completion of all math and science courses with a grade of “C” or better no more than five years prior to admission into the program is required.

It is strongly recommended that BIO 235 and BIO 236 be completed prior to entry into the nursing program. Applicants without BIO 235, BIO 236 and BIO 226 completed are not as competitive as other applicants for admission into the nursing program. A grade of B makes an applicant more competitive. Since the nursing program is very demanding, students are advised to take BIO 226 (Microbiology) before admission.

The nursing program is very demanding. It is strongly recommended that nursing students limit their outside employment to no more than 20 hours per week.

See pages 14 and 15 for nursing applicant steps and nursing program admission requirements.

AAS Nursing Program Prerequisites*
MTH 111 (or placement into MTH 113)
CEM 101 (or passing CEM CLEP exam)

General Education Requirements 12-19 Credit Hours
ENG 111 English Composition I 3
ENG 112 English Composition II 3
MTH 111 Beginning Algebra 4
COM 111 Speech or 3
COM 170 Interpersonal Communication 3

Social Science Requirement:
One of the following (3-6 credits):
PLS 141 American Government 3
SOC 171 Introduction to Sociology 3

Program Requirements 69 Credit Hours

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Designed for students who have not yet completed any previous nursing education program leading to licensure.

AH 280 Pharmacology 3
BIO 226 Microbiology 4
BIO 235 General Anatomy and Physiology I 4 (offered only in fall)
BIO 236 General Anatomy and Physiology II 4 (offered only in winter)
HE 200 Nutrition 3
N 101 Fundamentals of Nursing 7
N 102 Fundamentals of Nursing Clinical 2
N 131 Introduction to Nursing Care of the Adult 2
N 132 Introduction Nursing Care of the Adult Clinical 1
N 135 Foundations of Nursing 2
N 241 Nursing Care of the Adult I 3
N 242 Nursing Care of the Adult I Clinical (8 wks) 2
N 243 Nursing Care of Adult I - Research 1
N 251 Nursing Care of the Adult II 7
N 252 Nursing Care of the Adult II Clinical 4
N 253 Nursing Care of Adult II - Research 1
N 255 Family-Centered Care of Children 3
N 256 Family-Centered Care of Children Clinical (5 wks) 1
N 265 Women’s Health and the Childbearing Family 3
N 266 Women’s Health and the Childbearing Family Clinical (5 wks) 1
N 275 Mental Health Nursing 3
N 276 Mental Health Nursing Clinical (8 wks) 2
PSY 161 Introduction to Psychology 3
PSY 261 Developmental Psychology 3

*Students are not eligible to apply to the Nursing Program until they have completed these courses or the equivalent.

Sequence of Nursing Courses

Semester I (Fall)
N135
N101
N102 (clinical course: eight hours of lab or clinical per week)

Semester II (Winter)
N131
N132 (clinical course: 13 hours of clinical per week in a five week rotation)
N255
N256 (clinical course: 13 hours of clinical in a five-week rotation)
N265*
N266* (clinical course: eight days of eight-hour clinicals)

Semester III (Fall)
N241
N242 (clinical course: 13 hours of clinical per week in an eight-week rotation)
N243 (clinical course: 2 hours of clinical research/week in an eight-week rotation)
N275
N276 (clinical course: 13 hours of clinical per week in an eight-week rotation)

Semester IV (Winter)
N251
N252 (clinical course: 16 hours of clinical per week in a five-week rotation)
N253 (clinical course: 2 hours of clinical research in each five-week rotation)
N265/N266 may continue past the end of the regular winter semester

Students will also need to concurrently complete remainder of course work required for AAS in Nursing Degree.

Beginning fall 2010, admission to part-time nursing program is discontinued.
LPN Student Plan of Study
Associate of Applied Science  Program Code: 250
Associate Dean:  Mary Miles
Credit Hours: 63-67  Contact Hours:  Variable

This plan of study is designed for Licensed Practical Nurses seeking an Associate of Applied Science degree in nursing. Waiver of any course requirements based on previous education does not relieve the student from meeting the College’s degree requirements of a minimum of 60 credit hours. If coursework is waived, the student will be expected to complete courses in an appropriate area of study to meet the minimum 60 credit hour degree requirement. LPN students are encouraged to take non-nursing courses prior to acceptance in the program.

LPN Prerequisites
MTH 111 Beginning Algebra
CEM 101 Fundamentals of Chemistry

General Education Requirements  12 Credit Hours
ENG 111 English Composition I  3
ENG 112 English Composition II  3
COM 111  Speech or
COM 170  Interpersonal Communication (preferred)  3
SOC 171  Introduction to Sociology  3

Program Requirements  55 Credit Hours
AH 280  Pharmacology  3
BIO 226  Microbiology  4
BIO 236  General Anatomy and Physiology II  4 (offered only in winter)
HE 200  Nutrition  3
N 135  Nursing Foundations  2
N 200  Nursing Transitions  2
N 241  Nursing Care of the Adult I  3
N 242  Nursing Care of the Adult I Clinical (eight weeks)  2
N 243  Nursing Care of the Adult I Research  1
N 251  Nursing Care of the Adult II  7
N 252  Nursing Care of the Adult II Clinical  4
N 253  Nursing Care of Adult II - Research  1
N 255  Family-Centered Care of Children  3
N 256  Family-Centered Care of Children Clinical (five weeks)  1
N 265  Women’s Health and the Childbearing Family  3 **
N 266  Women’s Health and the Childbearing Family Clinical (five weeks)  1 **
N 275  Mental Health Nursing  3
N 276  Mental Health Nursing Clinical (8 wks)  2
N 290  Nursing Process  1
PSY 161  Introduction to Psychology  3
PSY 261  Developmental Psychology  3

*** LPNs may be eligible to test out of N 265 and N 266
Some program requirements may be waived and some may be added based on previous coursework taken.

Sequence of Nursing Coursework for LPN Students

Semester I (Fall)
N135
N290

**Semester II (Winter)**
N200
N255/N256
N265/N266*

**Semester III (Fall)**
N241
N242
N275
N276

**Semester IV (Winter)**
N251/252/253

*N265/N266 may continue past the end of the regular winter semester*

**Students will also need to concurrently complete remainder of course work required for AAS in Nursing Degree**

Beginning Fall 2010, admission to the part-time nursing program is discontinued.
Phlebotomy Technician
Certificate of Development
Program Code: 178 Credit Hours: 16-17 Contact Hours: 24
Director: Peter Olson

A phlebotomy technician practices blood-collection techniques that include venipunctures and skin punctures to provide samples for lab analysis. Students will learn:

- Techniques and procedures to assist in various lab procedures;
- To recognize conditions that alter specimen collections handling and test results;
- To determine appropriate specimen collection supplies and equipment;
- How to assure appropriateness of lab tests;
- Communication techniques with laboratories, medical providers and patients;
- How to provide the best care possible and assure specimen integrity.

Upon successful completion of the PHLB program, students may write the exam for the American Society for Clinical Pathology (ASCP) Phlebotomy Technician (PbT) Certification.

IMPORTANT PROGRAM INFORMATION
Only 12 students will be admitted into the Phlebotomy program each academic year. The application process for the program is selective: application to the program does not guarantee admission. Applicants will be ranked for admission using both academic and non-academic criteria, including membership in the WOCTEP program (Waganakising Odawa Career and Technical Education Program), in recognition of WOCTEP’s role in establishing the program itself. Students must successfully complete prerequisite courses and complete the application process by the application deadline.

The Application Deadline is July 1 of each year.

Students are strongly encouraged to consult with the Director of Allied Health early in the application process for advising concerning completion of prerequisite courses, specific admission requirements, coordination with other Allied Health programs (e.g. Medical Assistant, CNA) and membership in the WOCTEP program.

Applicant selection is finalized with the review of grades. Notification of acceptance occurs in early August. PHLB Tech program course requirements are taken in the fall (PHLB 101) and winter semesters (PHLB 102).

The PHLB Tech Program Application and the Pre-Admission Medical History Form are available online. Go to www.ncmich.edu, Programs of Study; under Certificates of Development choose Phlebotomy Program (Code 178) to access forms and information.

Phlebotomy Program Requirements:
- Proof of high school diploma or GED.
- Complete and submit a PHLB Technician Program Application for Admission by the deadline date.
- Successfully complete prerequisite courses listed below.
- Submit official college transcripts, if needed.
- Provide written documentation of immunizations specified on program application.
- Provide current CPR, BLS for Professional Rescuer or complete EMS 101.
- Submit completed Pre-Admission Medical History form.
- A criminal background check will be conducted.

Other Program Information:
- A Student Handbook will be provided to the student upon acceptance into the program.
- PHLB 101 (Theory and Lab) may be held at the LTBB Health Park.
- PHLB 102 (Clinical Practicum) will be held at various labs in the area.
- Students may be required to travel distances and participate in evening and/or weekend rotations.
- Students may be denied admission based on the results of the criminal background check.

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
This is a selective admission program. Students must apply for entry into the program. The PHLB Tech Program Application and the Pre-Admission Medical History Form are available online. Go to [www.ncmich.edu](http://www.ncmich.edu), Programs of Study. Under Certificates of Development, choose Phlebotomy-Program Code 178 to access forms and information.

**Prerequisite(s):**

(All prerequisite courses must be completed with a C+ (2.33 GPA or above)

- COM 170 Interpersonal Communication 3
- OAS 116 Medical Terminology 3
- AH 130 Body Systems and Diseases or 3 or
- BIO 133 Human Biology 4

**Program Requirements:**

- PHLB 101 Phlebotomy I. Must be completed with a C+ (2.33) to enter PHLB 102 4
- PHLB 102 Phlebotomy II 2

**Choose one course from the following:**

- OAS 101 Customer Service 1
- OAS 190 Employability Skills 1
- SD 107 Professional Development Skills 1
- SOC 115 Anishinaabek Culture (required for WOCTEP students) 1

9-10 Credit Hours
7 Credit Hours
Natural Sciences

Transferring Toward the Natural Sciences, AS Degree
Students considering a bachelor’s degree in the areas of biology and natural resources, chemistry, Earth sciences and geology, environmental sciences and physics should follow these recommendations when fulfilling requirements for the degree at North Central Michigan College.

Every college and university has its own specific degree requirements for this large array of majors. Students are advised to work closely with an advisor from both North Central and the transfer institution to make sure they choose proper coursework.

Recommendations for fulfilling Science and Mathematics Electives:

**Biology**
- Select BIO 151 for Group A Natural Science choice
- Select CEM 121 for Group B Natural Science choice
- BIO 152
- BIO 233
- BIO 226
- BIO 265
- MTH 123
- CEM 122

**Chemistry**
- Select PHY 230 for Group B Natural Science choice
- CEM 121
- CEM 122
- CEM 231
- CEM 232
- MTH 123
- MTH 122
- PHY 231

**Earth Science and Geology**
- Select ESC 121 for Group B Natural Sciences
- ESC 101
- ESC 122
- ESC 201
- MTH 123
- CEM 121
- CEM 122
- PHY 101
- PHY 210
- PHY 211

**Environmental Sciences and Natural Resources**
- Select BIO 151 Group A Natural Sciences
- Select CEM 101 or 121 for Group B Natural Sciences
- BIO 152
- BIO 233
- BIO 265
Physics and Astronomy
Select CEM 121 for Group B Natural Sciences
ESC 201
PHY 230
PHY 231
CEM 122
MTH 123
MTH 122
MTH 211
MTH 212
Select for a General Elective: CIS 100
Landscape & Nursery or Applied Plant Science

Associate of Applied Science
Program Code: 247  Credit Hours: 60  Contact Hours: 62
Associate Dean: Robert Marsh • MSU Contact: Andrew Norman

A cooperative, specialty Associate of Applied Science (AAS) degree between North Central Michigan College and the Institute of Agricultural Technology of Michigan State University (MSU). General education coursework is completed through North Central with technical skills coursework completed through the MSU Institute of Agricultural Technology. Technical skill options include either (1) Landscape and Nursery or (2) Applied Plant Science with concentrations in Commercial Horticulture Operations or in Commercial Turfgrass Operations. The MSU Institute of Agricultural Technology courses are offered on the campus of Northwestern Michigan College in Traverse City and lead to separate certification from MSU after a minimum of 48 credits of the required partnership coursework are earned in one of the MSU Certificate option areas. For detailed information about MSU’s coursework and certification, contact L. Andrew Norman, Coordinator, MSU Northern Michigan Plant Science Program, at 231-929-3902, or email: NORMANL@msu.edu

All NMC and MSU courses must be completed with a grade of “C” or better in order for credits to transfer to NCMC for credit towards this degree.

North Central Michigan College Courses
Program Requirements  23 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEM 101</td>
<td>Fundamentals of Chemistry *</td>
<td>4</td>
</tr>
<tr>
<td>CIS 100</td>
<td>Introduction to Computers *</td>
<td>3</td>
</tr>
<tr>
<td>COM 170</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 111</td>
<td>Macroeconomics or *</td>
<td>3</td>
</tr>
<tr>
<td>ECO 112</td>
<td>Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>English Composition I *</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 111</td>
<td>Beginning Algebra *</td>
<td>4</td>
</tr>
</tbody>
</table>

MSU and NMC Courses, taught in Traverse City at NMC
Program Requirements  19 Credit Hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 108</td>
<td>Plant Biology (NMC course) *</td>
<td>4</td>
</tr>
<tr>
<td>CSS 210</td>
<td>Basic Soil Science (ITV) *</td>
<td>3</td>
</tr>
<tr>
<td>ENT 110</td>
<td>Applied Entomology for Ornamentals and Turf *</td>
<td>3</td>
</tr>
<tr>
<td>HRT 213</td>
<td>Landscape Maintenance (ITV) *</td>
<td>2</td>
</tr>
<tr>
<td>HRT 215</td>
<td>Landscape Industries Seminar *</td>
<td>1</td>
</tr>
<tr>
<td>HRT 218</td>
<td>Landscape Irrigation (ITV) *</td>
<td>3</td>
</tr>
<tr>
<td>PLP 200</td>
<td>Plant Diseases and their Pathology *</td>
<td>3</td>
</tr>
</tbody>
</table>

* Required courses for MSU certification

Suggested Sequence for Full-Time Students at North Central
Semester I (Fall)
COM 170
ENG 111
MTH 111
CIS 100

Semester II (Winter)
CEM 101
ECO 111 or 112
ENG 112
Elective
MSU Courses, taught in Traverse City at NMC *
Choose one concentration (9-12 credits)

**Applied Plant Science- Commercial Horticulture Operations option Certificate**
AT 293  Professional Internship in Agricultural Technology 3
HRT 208  Pruning and Training of Horticulture Systems 3
ESA 490  Land and Environmental Issues in Law 3

**Applied Plant Science- Commercial Turfgrass Operations option Certificate**
AT 293  Professional Internship in Agricultural Technology 3
CSS 232  Introduction to Turfgrass Management (ITV) 3
ESA 490  Land & Environmental Issues in Law 3

**Landscape and Nursery MSU Certificate**
AT 293  Professional Internship in Agricultural Technology 3
HRT 111  Landscape Planning & Design 3
HRT 211  Landscape Plants I 3
HRT 212  Landscape Plants II 3

Choose 6-9 credits from the following NCMC and MSU courses to complete 60 credits

**MSU**
HRT 208  Pruning and Training of Horticulture Systems 3
HRT 214  Turf & Landscape Business Mgt (ITV) 2
AT 290  Independent Study in Ornamental Horticulture 1-4 (max 6 cr)
CSS 181  Fertilizer/Pesticide Application Tech 3
CSS 232  Introduction to Turfgrass Management (ITV) 3
ESA 490  Land & Environmental Issues in Law 3
HRT 111  Landscape Planning & Design 3
HRT 211  Landscape Plants I 3
HRT 214  Turf & Landscape Business Mgt (ITV) 3

**NCMC**
B 161  Introduction to Business 3
B 162  Strategic Planning in Small Business 3
B 200  Principles of Management 3
B 201  Human Resource Management 3
B 211  Principles of Accounting I 4
CEM 102  Fundamentals of Bioorganic Chemistry 5
MTH 113  Intermediate Algebra 4
PSY 161  Introduction to Psychology 3

*Required courses for MSU Certificate. See MSU advisor for details

**Summary of Credits**

<table>
<thead>
<tr>
<th>AAS in Landscape &amp; Nursery or Applied Plant Science</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCMC Program Requirements</td>
<td>Total 23</td>
</tr>
<tr>
<td>MSU and NMC required courses</td>
<td>19</td>
</tr>
<tr>
<td>MSU Concentration courses</td>
<td>9-12</td>
</tr>
<tr>
<td>NCMC and MSU electives</td>
<td>6-9</td>
</tr>
<tr>
<td>NCMC Degree Total:</td>
<td>60</td>
</tr>
</tbody>
</table>
Other Programs

Associate of Applied Science Specialty Program

A certificate from a state-approved (licensed) post-secondary training institution, apprenticeship, or other career training program may be accepted by North Central Michigan College and applied as 20–30 hours toward a 60 credit hour associate of applied science degree. To be evaluated and approved by North Central, the certified post-secondary training must be recorded on a transcript indicating the clock hours and training objectives. The following items are required prior to beginning the degree coursework at North Central: 1) an evaluation of credits; and 2) development of an educational plan by a counselor or appropriate dean or director. For more information about the specialty program option, contact Student Services.

Credits transferred in from certification 20-30

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>15 Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112 English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>COM 170 Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>Math competency</td>
<td>3</td>
</tr>
<tr>
<td>General Ed electives according to educational plan</td>
<td>3</td>
</tr>
<tr>
<td><strong>Specialty Area</strong></td>
<td><strong>15-25</strong></td>
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<tr>
<td>(North Central courses chosen according to educational plan)</td>
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GUIDE TO COURSE DESCRIPTIONS

The course descriptions on the following pages are classified according to discipline. Each course description includes the following information:

- **Course number.** Only courses numbered 100 and above may be used to fulfill certificate or degree requirements.
- **Title.**
- **Semesters when the course is offered.** F=Fall semester; W=Winter semester; S= Summer session.
- **Credit Hours and Contact Hours.** The number outside the parentheses denotes the credit hours for the course. Included within the parentheses are contact hours: lecture, laboratory, and clinical hours per week. A course identified as having variable credit has several options for credit determination.
- **Course description.**
- **Prerequisites and/or corequisites.** A prerequisite must be taken prior to entering a course. A corequisite must be taken prior to or concurrently with the course. In certain cases, prerequisites or corequisites may be waived with approval of the instructor. Prerequisites must be current enough so that the student can readily recall and build upon the content.

Example:

**EMS 110**  **EMT BASIC**  
(F,W)  
9(7-2-3)

Follows the outline prescribed by the National Registry and the State of Michigan to receive National Registry Certification as a Basic Emergency Medical Technician. The course involves classroom, hands-on- instruction both in the College lab and clinical sites. Students may be expected to spend time beyond that indicated in the syllabus to achieve course objectives. Students must pass this course with a 77% or better in order to enroll in advanced paramedic courses.

**PREREQUISITE(S):** valid driver’s license, no felony convictions, completed physical examination, immunizations, and current health insurance prior to clinical.

COURSE DESCRIPTIONS

(AH) Allied Health

**AH 107 MEDICAL OFFICE PROCEDURES**  
(F,W) 3(2-2-0)

This course is designed to provide the theoretical basis and practical application for performing clinical procedures in the medical office/clinic setting. Included are introduction to medical assisting; patient assessment including taking a medical history, interviewing patients and vital signs; documentation of care; preparing patients for examinations and procedures; principles of asepsis; phlebotomy; interpersonal communications, and legal issues.

**PREREQUISITE(S):** AH 130, OAS 116, Admission to the MA program

**AH 108 MEDICAL OFFICE PROCEDURES II**  
(F,W) 2(1-2-0)

A continuation of AH 107. This course is designed to provide the theoretical basis and practical application for performing clinical procedures in the medical office/clinic setting. Included are specimen collection and laboratory procedures; diagnostic tests, x-rays, and procedures; introduction to principles of psychology; care of the geriatric and pediatric patient; developmental stages; common diseases and diagnoses; medical emergencies; professionalism; medical ethics; and accreditation of medical office assistants. AH 108 must be completed before taking WBL 201.

**PREREQUISITE(S):** AH 107, AH 180

**AH 130 BODY SYSTEMS AND DISEASES**  
(F,W) 3(3-0-0)

An applied course designed for the medical assistant that provides an introduction to each body system and common diseases and conditions. Emphasizes core knowledge of anatomy as it relates to clinical practice. The student will examine knowledge related to fundamental concepts of diseases necessary to understand procedures and techniques commonly encountered in the clinical setting.
AH 154  CERTIFIED NURSE AIDE TRAINING  (F,W,S)  5(3-2-2)
Prepares students for work as a certified nurse’s aide. Course includes academic instruction, hands on practice in the laboratory setting, and clinical instruction in a long term care facility. Upon successful completion of the course, students are eligible to take the certified nurse aide examination in the state of Michigan. Students will be required to meet immunization standards of the clinical facilities and will be subject to a criminal background check prior to being able to participate in clinical instruction.

AH 180  PHARMACOLOGY FOR MEDICAL ASSISTANTS  (F,W)  3(3-0-0)
An applied pharmacology course designed for the medical. Emphasis is on safe, accurate administration of medications typically given in a physician’s office. The student will acquire knowledge of drug actions, major side effects, and techniques of administration.
PREREQUISITE(S): B 104 or MTH 096/106 or MTH 111, AH 130

AH 240  PATHOPHYSIOLOGY  (F)  4(4-0-0)
Pathophysiology is the study of abnormal function in living tissue. Physiological principles underlying the causes, signs, symptoms, and pattern of development of human disease will be examined. Recommended that BIO 235, BIO 236, CEM 101 be taken before AH 240.

AH 254  ADVANCED CNA SKILLS  4 (2-2-3)
Advanced preparation for CNAs for the role of assistive personnel and the latest trends in health care. The course will cover crossover skills needed to work in varied healthcare settings such as acute, sub-acute, home health, hospices, and long-term care. Skills taught include venipuncture, respiratory care, wound care, electrocardiograms, catheterization and other technical skills.
PREREQUISITE(S): AH 154 or current certification as CNA

AH 280  PHARMACOLOGY  (F,W)  3(3-0-0)
An introduction to the general principles of drugs and how they alter biological functions. Instruction focuses on the effects of specific drugs on body systems including: the autonomic nervous system; and the cardiovascular, respiratory, endocrine and immune systems. In addition, the pharmacology of antibiotics and chemotherapeutics is covered. Special emphasis is placed on the importance of the understanding of pharmacology with respect to nursing practice.
PREREQUISITE(S): CEM 101, BIO 235, BIO 236, N 101

AH 285  WORK BASED LEARNING – MEDICAL ASSISTANT I  2(0-0-8)
Students in this course are placed in a medical office, where they will be responsible for working on their clinical skills. Students will not be placed with their current employer. This course is designed to allow the student to practice the skills that were taught in the Medical Office Procedures class. Students will be working directly with an MA or RN, rooming patients, recording vitals, and administering injections. Students are responsible for completing a clinical task list. Two hours of classroom prep are included before starting this clinical experience. A background check and a physical exam are required. A minimum of 2.0 GPA required. Students should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.
PREREQUISITE(S): AH 107 and AH 180 and admission to the MA Program

AH 290  WORK BASED LEARNING – MEDICAL ASSISTANT II  2(0-0-8)
Students in this course are placed in a medical office, where they will be responsible for working on their administrative skills and will tour special clinical sites. Students will not be placed with their current employer. This course is designed to allow the student to practice the skills that were taught in the Medical Office Procedures class. Students will be working directly with Front Office staff, answering phones, scheduling appointments, creating medical charts and calling in prescriptions. Students are responsible for completing an administrative task list. Two hours of classroom prep are included before starting this clinical experience. A background check and a physical exam are required. A minimum of 2.0 GPA required. Students should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.
PREREQUISITE(S): AH 285, OAS 216 and admission to the MA program or AH 285, OAS 220, OAS 221 and admission to the MA program.

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11  revised 11-24-2010
AH 297  SPECIAL TOPICS IN ALLIED HEALTH  2(2-0-0)
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching
in their areas of expertise. Topics will vary.

(ANP) Anthropology

ANP 110  CULTURAL ANTHROPOLOGY  (F,W)  3(3-0-0)
This class is an introduction to the study of past and present cultural diversity throughout the world. Students learn
major subfield methods, theories and issues and how to apply them to the study and understanding of human cultural
variation. Topics covered during lecture, class discussion, and activities include the social, political, economic and
religious systems of diverse societies.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group A

ANP 130  INTRODUCTION TO PREHISTORIC ARCHEOLOGY  3(3-0-0)
This course introduces the student to the theories, methods, and practices of prehistoric archaeology. This will be
accomplished through the evaluation, analysis, and interpretation of archaeological data from sites around the world.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

ANP 161  INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY  3(3-0-0)
This introduction to biological anthropology examines the genetic, adaptive, primate, and evolutionary background
to humankind’s emergence. Topics include human genetics, evolution, primate studies, human osteology, and
human diversity. A basic understanding of biology is needed for success in this course.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

ANP 210  ETHNOLOGY OF WORLD CULTURES  3(3-0-0)
An ethnographic survey of societies at different levels of socioeconomic development. Topics discussed include
environment, politics, gender, economics, family and kinship, marriage and religion in hunting and gathering,
horticultural, agrarian, industrial, and postindustrial societies. No prerequisite but ANP 110 is recommended.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

ANP 295  FIELD STUDIES IN ANTHROPOLOGY  3(3-0-0)
This course offers students the opportunity to explore and analyze past and/or present human cultural diversity
during an extended field experience. Students will be expected to participate in anthropological and/or
archaeological fieldwork for the duration of the field experience. The destination, schedule of events, student
responsibilities, and number of credits will vary and will be announced prior to class registration. Course fees will
reflect trip expenses.
PREREQUISITE(S): Instructor’s permission.

(ARC) Architecture

ARC 110  ELEMENTS OF ARCHITECTURE  (F)  3(3-0-0)
An introductory course in understanding the elements and meaning of architecture. The intent of the course is to
provide a broad view of the factors and issues that translate need and purpose into architectural form. Students will
become familiar with images of architecture drawn from various times and cultures. Projects and exercises will
apply the knowledge and skills acquired in the class.

(ART) Art

ART 100  TWO-DIMENSIONAL DESIGN  (F)  3(3-0-0)
A basic introduction to the visual world. The student will develop a visual vocabulary and build an understanding of
the elements and principles of design as they apply to work in two dimensions. Several mediums will be explored.

ART 101  COLOR THEORY  (W)  3(3-0-0)

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
The purpose of this course is to help students gain a command of and a confidence in the use of color. Coursework explores color properties, color harmonies and systematic color relationships as they pertain to visual communication.

**ART 102 THREE-DIMENSIONAL DESIGN** (W) 3(3-0-0)
A foundation course that introduces students to the basic principles and elements of design as they apply to three-dimensional form and space. Students work with a variety of media in additive, subtractive and modular approaches to making forms in three dimensions.

**ART 103 ART APPRECIATION** 3(3-0-0)
This course is designed for non-art majors wishing to understand the techniques, materials and criteria artists use in making art. Students will learn to look critically at a work of art, discuss the work and understand how it relates to works of art from the past.

**ART 105 ART HISTORY I** (F) 3(3-0-0)
An introduction to painting, sculpture and architecture from prehistoric to Medieval times. Art forms are examined both for individual qualities and for the way they exemplify changes in Western cultural patterns.
**GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group A**

**ART 106 ART HISTORY II** (W) (3-0-0)
A survey of the history of art including architecture, painting, sculpture, fine craft, performance art, video and digital art and the decorative arts from the 14th century through the early 20th century. Students will place the arts within the context of world geography, history, politics and religion to understand the relevance of art to contemporary life.
**GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group A**

**ART 109 BASIC DRAWING & COMPOSITION** (F,W) 3(3-0-0)
An introduction to the techniques of drawing with various black and white media, including their use in the manipulation of the elements of composition in both representational and non-objective art.

**ART 110 PAINTING & COMPOSITION** (W) 3(3-0-0)
Using the knowledge of the elements of composition developed in ART 109, students begin working with color in a variety of media.

**ART 112 WATERCOLORS I** (F,W) 3(3-0-0)
A course introducing the techniques and approaches of watercolor painting. Pictorial and non-representational compositions are explored, focusing on color, value and basic skills for successful watercolor renderings.

**ART 113 OIL PAINTING** (F) 3(3-0-0)
An introduction to basic techniques of oil painting. Survey and exploration of a wide range of methods, styles and expressions are emphasized.

**ART 115 HISTORY OF NON-WESTERN ART** 3(3-0-0)
An introduction to painting, sculpture and architecture from prehistoric to contemporary times in the cultures of Asia, Africa and the Americas. The production of artwork and architecture is examined in an effort to explain their aesthetic qualities, as well as the stories they tell of the cultures and peoples that produced them.

**ART 116 THE HISTORY OF INTERIORS** 3(3-0-0)
The study of the most successful and innovative uses of interior space through the ages.

**ART 117 HISTORY OF MODERN ART** 3(3-0-0)
The study of Modern Art from Cubism through the 21st century

**ART 120 ARTS & CRAFTS FOR ELEMENTARY TEACHERS** (F,W) 3(3-0-0)
An art education course for prospective elementary teachers. The philosophy and educational role of art are integrated with studio projects for the classroom.
ART 130  INTRODUCTION TO JEWELRY $3(3-0-0)$
Introduction to fine metals. Exploration of the design and creation of jewelry forms using traditional fabrication
techniques. Processes include cutting, soldering, casting, stone setting and the use of tools and equipment.

ART 141  PASTEL LANDSCAPE PAINTING $3(3-0-0)$
Following discussion of the basic tools and materials of pastel, the class will include step by step demonstrations of
the traditional procedures used in pastel landscape painting. Students will apply these procedures by working
outdoors, on site, except in inclement weather or when indoor demonstration is necessary.

ART 199  Survey of Glass Techniques $3(3-0-0)$
A hands-on overview of basic glass forming techniques. Students will experience torch work, kiln work and glass
blowing.

ART 201  PRINTMAKING $3(3-0-0)$
An introduction to some of the major printmaking techniques including relief, planographic and screen printing.

ART 202  INTRODUCTION TO FIBER AND TEXTILE DESIGN (W) $3(3-0-0)$
An introduction to the concepts of design as they relate to fiber structures and fabric processes with a focus on
aesthetic development through exposure to practices, tools, and materials.

ART 204  CERAMICS I (F,W) $3(3-0-0)$
An introductory course to expose the student to the possibilities of clay work, with an emphasis on hand-building,
and an introduction to throwing on the potter’s wheel.

ART 205  CERAMICS II (W) $3(3-0-0)$
A course which builds on the knowledge and skills acquired in Ceramics I, with an emphasis on developing
throwing and hand-building skills, and more opportunity to explore different firing options. An introduction to glaze
composition is also included.
PREREQUISITE(S): ART 204 or equivalent.

ART 206  CERAMICS III (W) $3(3-0-0)$
This course will facilitate the further development of the student’s individual direction in clay work. Students will
continue to develop processes and techniques, but with a focus on developing their own clay bodies, glazes and
firing techniques.
PREREQUISITE(S): ART 205 or equivalent.

ART 208  ADVANCED CERAMICS (W) $3(3-0-0)$
This course will allow the student to pursue advanced, more independent work. There will also be an emphasis on
learning all aspects of studio operation, including clay preparation, glaze mixing, and kiln loading and firing.
PREREQUISITE(S): ART 206 or equivalent.

ART 212  LIFE DRAWING (W) $3(3-0-0)$
An introduction to drawing the figure in various media. Techniques of gesture, contour and proportions, along with
their integration into coherent compositions, are included.

ART 213  TYPE AND IMAGE $3(3-0-0)$
An exploration of the aesthetic relationship between type and image. Topics will include the development of the
alphabet; the letterform as art; signs and symbols in ancient and modern societies; and ways in which images and
text interact to create meaningful communication.

ART 215  ADVANCED PAINTING & COMPOSITION (F,W) $3(3-0-0)$
A continuation of study from earlier painting and composition courses. Students advance in composition practice,
analysis and painting technique and expand to still life, figure and landscape drawings.
PREREQUISITE(S): ART 110 or ART 113 or PERMISSION OF INSTRUCTOR

ART 218  WATERCOLORS II (W) $3(3-0-0)$

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
This advanced course allows the student to build on watercolor techniques and approaches as introduced in ART 112. The course continues with pictorial and non-representational compositions, color value and introduces advanced skills for successful water-color renderings.

**PREREQUISITE(S):** ART 112 or permission of the instructor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>ART 219</td>
<td>WATERCOLORS III (W)</td>
<td>3(3-0-0)</td>
<td>A continuation of ART 218, this course emphasizes advanced techniques as well as building on techniques and approaches discussed in ART 112. The course continues with pictorial and non-representational compositions, color value and introduces advanced skills for successful water-color renderings. <strong>PREREQUISITE(S):</strong> ART 112 or permission of the instructor.</td>
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<td>ART 220</td>
<td>STAINED GLASS (F,W)</td>
<td>3(3-0-0)</td>
<td>An introduction to the art and craft of stained glass. In the studio, students acquire technical skills needed to design and execute medallions and panels of stained glass.</td>
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<tr>
<td>ART 221</td>
<td>ADVANCED STAINED GLASS (F,W)</td>
<td>3(3-0-0)</td>
<td>A continuation of ART 220 with greater emphasis on design and execution of larger objects.</td>
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<td>ART 230</td>
<td>TEXTILE DESIGN I</td>
<td>3(3-0-0)</td>
<td>An in-depth exploration of the methods used to print, paint, layer and dye to create images on fabric. Several classes of dye and types of fiber will be used, with a focus on developing personal imagery.</td>
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<td>ART 231</td>
<td>INTRODUCTION TO WEAVING</td>
<td>3(3-0-0)</td>
<td>An introduction to several types of weaving methods, using very simple to highly technical looms. Materials, methods and finishing will be covered.</td>
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<td>ART 232</td>
<td>ADVANCED WEAVING</td>
<td>3(3-0-0)</td>
<td>Continuing study into weave structures and methods. Emphasis placed on four harness weaving including tabby, twill, basket, double weave, and patterns.</td>
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<td>ART 235</td>
<td>TEXTILE DYE INTENSIVE</td>
<td>3(3-0-0)</td>
<td>An in-depth exploration of the methods used to dye natural fibers. Dye systems including Procion MX, Acid and natural dyes will be investigated.</td>
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<tr>
<td>ART 236</td>
<td>TEXTILE NATURAL DYE INTENSIVE</td>
<td>3(3-0-0)</td>
<td>An in-depth exploration of the plants and insects used to dye natural fibers. Systematic dyeing with meticulous record keeping strategies will be stressed.</td>
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<td>ART 240</td>
<td>JEWELRY II</td>
<td>3(3-0-0)</td>
<td>An opportunity for students with experience in basic metalsmithing and jewelry processes to focus on advanced techniques such as chasing &amp; repousse, reticulation, cold joining, patterned metals, patinas, specialized stone settings, mechanisms and chains. An important aspect of this course will be the pursuit of individual design concepts and techniques of special interest to the student. <strong>PREREQUISITES:</strong> ART 130</td>
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<tr>
<td>ART 242</td>
<td>JEWELRY III</td>
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<td>An opportunity for students with experience in the basic jewelry and metalsmithing processes to create pieces focusing on advanced techniques and to develop a personal style. <strong>PREREQUISITE:</strong> ART 240</td>
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<tr>
<td>ART 244</td>
<td>JEWELRY IV</td>
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<td>For students who have mastered all the basic jewelry and metalsmithing processes and advanced techniques taught in ART 240 and ART 242. This course will enable those advanced students to develop a specialization in a particular technique. Additionally, the course will be an opportunity to work within that technique, to develop a cohesive series of pieces in their personal style. <strong>PREREQUISITE:</strong> ART 242</td>
</tr>
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</table>
ART 245  THE BUSINESS OF ART  3(3-0-0)
An overview of the business of being an artist, this class will introduce the student to portfolio and resume development, taxes and record keeping, copyright issues, discussing a business plan and the utilization of technology to sell and market artwork.

ART 295  FIELD STUDIES IN ART  4(4-0-0)
A field class in which students will travel to various locations to study architecture, monuments, memorials, sculptures and museum collections. Time periods studied may range from ancient to contemporary. Descriptions of specific activities, locations, credit values, and student responsibilities will vary and be announced prior to class registration. Course fees will reflect trip expenses.
PREREQUISITE(S): Permission of the instructor

ART 297  SPECIAL TOPICS IN ART  3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

ART 299  INDEPENDENT STUDY  3(3-0-0)
A course offering students the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements for approval and supervision with professor of their choice in the discipline the project will cover.

(B) Business

B 104  BUSINESS MATH  (F,W,S)  3(3-0-0)
A review and practice course in fundamental arithmetical processes. Emphasis is on the use of fractions, decimals, weights and measures, payroll deductions, record keeping, banking services, notes and interest, insurance, metric, depreciation methods, stocks and bonds, mark-ups and other typical business calculations. Students will use electronic calculators for applications processes.

B 111  ACCOUNTING PROCEDURES  (F)  3(3-0-0)
A beginning course in accounting for the non-accounting student. The theory and practice of modern double-entry accounting systems and procedures are highlighted, with special emphasis on developing an understanding of basic financial records and applying elementary accounting concepts to business situations.

B 103  BASIC BUSINESS METHODS  3(3-0-0)
Provides a practical overview with applications of three key entry level business skills: business mathematical concepts, accounting/bookkeeping procedures and computerized accounting utilizing Quickbooks.

B 110  BUSINESS COMMUNICATION ESSENTIALS  3(3-0-0)
Provides a basic introduction to oral and written communication as it is used in a business setting. Students will identify, analyze and practice effective methods of communicating information in the workplace as well as learn how to deal with barriers to proper communication. How to prioritize and choose between paper-based and electronic communication will also be covered.

B 113  COMPUTER-ASSISTED ACCOUNTING  (F,W)  3(3-0-0)
An introduction to computer-based accounting, using the latest versions of two of the most popular programs used in accounting today. QuickBooks Pro is one of the most popular general ledger software packages used by small and medium sized businesses. The Peachtree accounting program provides the student with conceptual knowledge and the process knowledge necessary to build the problem-solving skills that he or she will need when using computerized accounting in the workplace.
PREREQUISITE(S): one college level accounting course.

B 155  PERSONAL FINANCE  (F)  3(3-0-0)
A course in making personal economic decisions: budgeting income; borrowing and buying on credit; choosing savings instruments, stocks, bonds, real estate and other investments; life insurance; annuities; buying or renting a house; and use of financial institutions.
B 161   INTRODUCTION TO BUSINESS   (F,W,S)          3(3-0-0)
An introductory course for business students that is also useful for those in other fields. The course objective is to take students with limited business backgrounds and introduce them to a variety of business topics by reading about and discussing current business activities and problems. Topics include capitalism, communism, socialism, forms of business organizations, the stock market, the bond market, banking, insurance, management, labor relations, accounting information and business ethics. Students will read, watch, discuss, and become involved with business topics and problems.

B 162   STRATEGIC PLANNING IN SMALL BUSINESS   (F)    3(3-0-0)
A course designed for those who have an interest in beginning, purchasing or managing a small business. Major topics include the entrepreneurial personality, strategic and tactical planning, forms of ownership, whether to buy an existing business or start your own, finances and financial record keeping, building and maintaining the business plan, potential sources of funds and taxes. B163 completes the student’s introduction to small business issues.

B 163   MANAGEMENT PRACTICES IN SMALL BUSINESS   (W)    3(3-0-0)
May be taken separately or as a continuation of B 162. Major topics include marketing fundamentals (advertising, promotions, personal selling, pricing, location), human resource management, purchasing, inventory control, risk management, globalization and a management and a management and marketing approach to information technology.

B 200   PRINCIPLES OF MANAGEMENT   (F,W)          3(3-0-0)
A comprehensive introduction to management theory and practice. The course begins with a brief look at the history of management thought, investigates the functions of management and covers such topics as quality strategic management, organizations and organizational cultures, decision making, operations management, social responsibility and business ethics, and international management. Consideration is also given to recent developments in management practice and styles of managerial leadership. Classes consist of lectures, discussions, case studies and group presentations.

B 201   HUMAN RESOURCE MANAGEMENT   (F,W)          3(3-0-0)
A course that focuses on the effective use of people at work. Classes examine what can be done to make people more productive and satisfied within organizations. Topics include such activities as job analysis, employee planning, recruitment, selection and orientation, performance and evaluation, compensation and benefits, safety and health, labor relations, discipline and equal opportunity. Consideration is given to both union and non-union organizations. Human relations aspects are emphasized and many legal issues are examined. Classes consist of lectures, discussions, case studies, and group presentation.

B 207   BUSINESS COMMUNICATIONS   (F,W,S)          3(3-0-0)
This course provides insight into real-life business situations and provides extensive coverage of communication theory, ethics, cultural diversity, teamwork, law, information technology, public speaking and the writing process. Coursework requires students to plan, research, and deliver oral presentations and compose business proposals, reports, letters and employment application materials. Students will benefit from acquiring strong communication skills, which are considered one of the most important indicators of success in today’s business environment.
PREREQUISITE(S): ENG 111 and either ENG 112 or the permission of the instructor.

B 211   PRINCIPLES OF ACCOUNTING I   (F,W,S)          4(4-0-0)
An introduction to the study of accounting principles and theory covering financial statements and basic procedures in the accounting cycle; general and columnar journals, controlling accounts and subsidiary ledgers; work sheets; notes and interest; prepaid, unearned and accrued items; depreciation, vouchers, and payrolls

B 212   PRINCIPLES OF ACCOUNTING II   (F,W)          4(4-0-0)
A continuation of the study of accounting principles. The course introduces accounting for the formation and operation of corporations; stocks and bonds; process and job order cost procedures; special reports, statements and analysis; and cash flow statements.
PREREQUISITE(S): B 211
B 213  INTERMEDIATE ACCOUNTING I  (F)  4(4-0-0)
A comprehensive study of the fundamental process of accounting, with special emphasis on inventories, investments, intangibles, plant and equipment, long-term liabilities, present and future values, and working capital items.
PREREQUISITE(S): B 212

B 214  INTERMEDIATE ACCOUNTING II  (W)  4(4-0-0)
A continuation of B 213, with additional study in accounting for corporate capital, stock, retained earnings, dividends, analysis, pensions, leases, and cash flow statements.
PREREQUISITE(S): B 213

B 216  FEDERAL TAXATION ACCOUNTING  (W)  3(3-0-0)
A course in the concepts of federal income taxation, emphasizing individual taxpayers. Tax law covering taxable and excludable gross income, deductions, tax-free changes, capital gains and losses, tax credits and depreciation is presented.
PREREQUISITE(S): B 211

B 218  COST ACCOUNTING I  (F)  3(3-0-0)
An intensive study of a cost accounting information system. Students learn how management’s efforts to achieve organizational objectives rest upon the twin functions of planning and control. In-depth study of the planning function as a decision making process and the control function as a systematic effort by management to organize and marshal natural forces, human behavior and material objects into a coordinated unit in order to meet goals is also included.
PREREQUISITE(S): B 212

B 285  WORK BASED LEARNING- BUSINESS  (F,W,S)  2(0-0-8)
Students are placed in a business or industry setting that is directly related to their chosen career. Students will participate in the work environment at a preliminary level, which will depend on individual student ability and knowledge. Students are not responsible for goals of the organization. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience. Prerequisites are determined by the curriculum in which the student is enrolled. See WBL Coordinator for a complete list. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.
PREREQUISITE(S): Based on student’s curriculum; see WBL Coordinator for a complete list

B 290  BUSINESS LAW I  (F,W)  3(3-0-0)
An introduction to the fundamental principles of laws for business and non-business students. The course covers the laws and regulations affecting business conduct. Content includes the nature and source of laws; the ethics and responsibilities of running a business; business organizations and government regulations. Specific areas of the law will include: constitutional law; criminal law; tort law and other statutory law regulating the conduct of businesses.

B 291  BUSINESS LAW II  (W)  3(3-0-0)
A continuation of B 290 with special emphasis on the laws of business transactions, including sales and contracts; commercial and financial transactions; landlord tenant and real estate law.

B 299  INDEPENDENT STUDY  3(3-0-0)
A course offering students the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements for a project under the supervision of a professor of their choice in the project’s discipline area.

(BIO) Biology

BIO 101  INTRODUCTION TO BIOLOGY  (F,W)  4(3-2-0)
This course is designed for non-science majors and for those students wishing to improve their skills before attempting more advanced studies. Students will be introduced to biological concepts and the importance of these concepts to life on earth. Dissection is not required. Lecture and Lab.

GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group A

BIO 133  HUMAN BIOLOGY WITH LAB  (F,W)  4(3-2-0)
A lab science course that covers selected structures and functions with application to current health issues. The lab emphasis is the identification of both gross and microscopic anatomy. This course does not fulfill requirements for the AAS degree in nursing.
PREREQUISITE(S): No prerequisite but high school biology is recommended.

BIO 151  GENERAL BIOLOGY I  (F)  4(3-3-0)
This course is designed for science majors, minors and those students desiring a more challenging natural science experience. Topics will include scientific research methods, biochemistry, cell biology, microbiology, genetics, and evolution.
PREREQUISITE(S): No prerequisite but high school biology or successful completion of BIO 101 is recommended.

BIO 152  GENERAL BIOLOGY II  (W)  4(3-3-0)
This course is designed for science majors, minors and those students desiring a more challenging natural science experience. Topics will include plant and animal biology, animal behavior and ecology.
PREREQUISITE(S): No prerequisite but high school biology or successful completion of BIO 101 or BIO 151 is recommended.

BIO 215  GREEN LIVING  3(3-0-0)
A scientific exploration of the biological and ecological fundamentals of “going green.” Topics will include non-toxic alternatives for the home and body, alternative energy, recycling, water usage and protection issues, the positive impact of eating locally and organically, the ecological importance of making green choices, causes and solutions for global warming, and sustainable vs. unsustainable products and practices. These topics will be explored from an ecological standpoint. Local community issues, resources, farms, and speakers will be used to enhance and bring relevance to the topics covered in this course.

BIO 220  NATURAL RESOURCE MANAGEMENT  3(3-0-0)
This is a field-oriented course. Students will have the opportunity to learn the methods used by biologists to evaluate and determine the management of forests, water resources, recreational lands, fisheries and wildlife resources. Experiential learning is emphasized and students can expect to spend most of class time outdoors. Class activities take place in the College Natural Area and several off campus locations and may include wading, canoeing and hiking. One weekend backpacking trip is an important part of class. Those not able to participate will complete an alternative assignment. Students need to provide their own transportation to off-campus locations.
PREREQUISITE(S): BIO 101, BIO 151 or BIO 152.

BIO 226  MICROBIOLOGY  (F,W)  4(3-2-0)
An introduction to the world of microorganisms and the application of microbiology to the study of health and disease. The introductory portion of the course includes a survey of the microbial world with emphasis on the basic morphology, physiology, behavior and classification. The application portion of the course covers the problems of the control of microorganisms, the concepts of the host/parasite interaction and epidemiology. Representative diseases are used frequently as examples and case studies.
PREREQUISITE(S): BIO 235 or college biology background.

BIO 233  INTRODUCTION TO NATURE STUDY  (W)  3(1-4-0)
Designed for students interested in learning about the wildlife and ecology of Northern Michigan. Class activities include wildlife identification, discussion of natural history, wildlife photography and field investigations. Field trips are an essential part of the class experience. This course is recommended for science majors and for students planning careers in wildlife biology, natural resources, elementary education and science education.
PREREQUISITE(S): BIO 101, BIO 151, or BIO 152

BIO 235  GENERAL ANATOMY & PHYSIOLOGY I  (F)  4(3-2-0)
An introduction to the principles of biology covering the structure and function of the skeletal, muscular, nervous and sensory systems.
PREREQUISITE(S): No prerequisite but high school biology or college level biology is highly recommended. NOTE: BIO 235 and BIO 236 together are designed to provide a complete overview of human biology. For this reason Anatomy and Physiology should be considered as a two-semester course to be taken in sequence. Lecture and Lab.
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group A

BIO 236  GENERAL ANATOMY & PHYSIOLOGY II  (W)  4(3-2-0)
A continuation of BIO 235 covering the structure and function of the endocrine, cardiovascular, respiratory, lymphatic, immune, digestive, urinary and reproductive systems.
PREREQUISITE(S): BIO 235. Lecture and Lab.

BIO 265  ENVIRONMENTAL BIOLOGY  3(3-0-0)
This is a course that deals with the interrelationships between organisms and their environment. Topics include ecology, natural resources, and environmental problems, both local and global. Discussion of current environmental problems is an important part of the class activities. Some field trips may be required.
PREREQUISITE(S): BIO 101, BIO 151 or BIO 152 or permission of instructor

BIO 295  FIELD STUDIES IN BIOLOGY I  (W)  3(3-0-0)
This course offers students the opportunity to explore and analyze an ecosystem during an extended field experience. Students will be expected to participate in activities which may include hiking, camping, taking photographs and observing wildlife. The destination, schedule of events, student responsibilities and number of credits will vary and will be announced prior to class registration. Course fees will reflect trip expenses.
PREREQUISITE(S): varies, check with instructor

BIO 296  FIELD STUDIES IN BIOLOGY II  (W)  3(3-0-0)
This course offers students the opportunity to explore and analyze a second ecosystem during an extended field experience. See course description for BIO 295.
PREREQUISITE(S): BIO 295 and permission of instructor

BIO 297  SPECIAL TOPICS IN BIOLOGY  3(3-0-0)
Special Topics classes provide students opportunity for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

BIO 299  INDEPENDENT STUDY BIOLOGY  3(3-0-0)
The independent study is designed for science majors who would like the opportunity to design and implement a project or study in the field of Biology. Students may enroll for up to three credits and are expected to document at least 16 hours of coursework for each credit. Students are supervised by the biology professor of their choice.
PREREQUISITE(S): Satisfactory completion of at least two college biology courses and permission of the instructor.

(CAP) Computer Applications

CAP 100  COMPUTERS FOR THE VERY BEGINNER  (W)  1(1-0-0)
Computers can be intimidating for those new to their use. This course is designed as a very basic introduction to hardware and software. Students will become comfortable with the PC, begin to appreciate its capacity to make some tasks much easier and realize that computing can even be fun.

CAP 101  INTERNET SEARCHING & RESEARCHING  (F)  1(1-0-0)

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
Students will learn to use basic Internet tools that will enhance their job performance as well as support lifelong learning and personal growth. The course includes guided practice in such areas as connecting to the Internet, managing E-mail, using search engines, accessing on-line databases, transferring files and being an informed and responsible Internet user.

ADVISING NOTE: Students must be able to use the Windows environment, keyboard, and a mouse prior to enrolling in this course. This can be accomplished by taking CAP 100.

**CAP 102 WEB DESIGN FOR BEGINNERS** 1(1-0-0)
Provides basic training in web site design, set-up and editing. The course is geared to the introductory needs of the students, who will be encouraged to bring work-related and course-related material to class. At the conclusion of the course, students will have a basic understanding of web sites and will be able to design and implement their own.

**CAP 125 MICROSOFT EXCEL I (OFFICE 2003) (F,W) 3(3-0-0)**
Course in Microsoft’s spreadsheet program for the Windows environment. Students will build worksheets using formulas, functions, formatting and other basics. They will enhance these with 3-D charts, data tables, macros using BASIC, database filtering and sorting as well as object linking and embedding. ADVISING NOTE: Students must be able to use the Windows environment, keyboard and a mouse prior to enrolling in this course. This can be accomplished by taking CAP 100.

**CAP 130 MS ACCESS 3(3-0-0)**
A detailed look at Access, Microsoft's database program for the Windows environment. Students will create reports and forms. Sample topics include integrating Excel data, utilizing sub-forms, multi-table forms, macros and basic SQL.

ADVISING NOTE: Students must be able to use the Windows environment, keyboard and a mouse prior to taking this course. This can be accomplished by enrolling in CAP 100.

**CAP 135 WEB PAGE DESIGN (F,W) 3(3-0-0)**
A course in web page design, layout and construction. Specific web page creation software is used to create and manage web sites, whether for personal or business use. Students will learn skills such as adding text, tables, video, Active X or JavaScript and other components to web pages.

**CAP 140 INTRODUCTION TO ADOBE PHOTOSHOP (F) 3(3-0-0)**
An introduction to computer graphics as an image making process for the manipulation of scanned (found) images. After a basic orientation to computer processing, Adobe Photoshop will be used for the development of images as formal fine art, illustration and as a visual communication tool.

**CAP 145 INTRODUCTION TO ADOBE ILLUSTRATOR 3(3-0-0)**
An introduction to computer graphics through the creation and manipulation of vector (non-photographic) images. Adobe Illustrator will be used as the medium to allow students to import or create graphic images such as logos, artwork and advertisements. Students will learn how to incorporate rendered and imported images into finished work for presentation.

**CAP 150 INTRODUCTION TO ADOBE INDESIGN 3(3-0-0)**
An introduction to the creation, layout, and presentation of print and online computer graphics. Students will learn how to incorporate raster (photographic) and vector (non-photographic) images into a final presentation package through the use of Adobe InDesign.

**CAP 160 INTRODUCTION TO DIGITAL AUDIO AND VIDEO (F,W) 3(3-0-0)**
Introduces students to the essentials of editing video and audio with computers. Concepts are taught that may be applied to radio, POD casting, TV/video production, VOD casting, multimedia authoring, and/or Internet video streaming. Current hardware requirements/limitations and future technology developments will also be discussed. Demonstrated knowledge of basic computer skills is recommended to be successful in this course.

**CAP 210 ADVANCED WEB PAGE DESIGN 3(3-0-0)**
Students will explore more advanced elements of web page design, including setting up multiple, advanced cascading style sheets and incorporating other media into web pages. The emphasis will be on developing dynamic,
multi-level web pages that may include video, audio, animation and embedded scripting. Students will work with web design software to develop sites for personal or business uses. This course assumes proficiency with the computer environment and some previous work in web design.

PREREQUISITE(S): CAP 135 or equivalent

CAP 215 ADVANCED DIGITAL AUDIO AND VIDEO  3(3-0-0)
Builds on Introduction to Digital Audio and video (CAP 160) and focuses on a more advanced level of production of audio and video. Will be taught using several different types of software as tools to accomplish the end product. Emphasis is placed on concepts, processes and techniques as opposed to specific software applications. Students will be able to, upon successful completion of this course, edit and assemble audio and video that will play on any computer or that will output to a variety of media, both physical and on the web.

PREREQUISITE(S): CAP 160

CAP 220 PRODUCTION ART WITH ADOBE CREATIVE SUITE  3(3-0-0)
An introduction to computer prepress operations (production art) using the latest Adobe Creative Suite. Adobe Photoshop, Illustrator and InDesign will be used for the development of finished products, such as brochures, business cards, posters or letterhead, ready for web or press. Introductory graphic design ideas and concepts will also be introduced. This course is ideal for students interested in working in the Graphic Design industry.

PREREQUISITES: CAP 140 or CAP 145 or CAP 150 or comparable Adobe experience.

CAP 297 SPECIAL TOPICS IN COMPUTER APPLICATIONS  2(2-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

(CEM) Chemistry

CEM 101 FUNDAMENTALS OF CHEMISTRY  (F,W)  4(3-3-0)
A course for students with a limited or no chemistry background wishing to enter an allied health program or prepare for enrolling in Principles of Chemistry, CEM 121. Topics include states of matter, atomic structure, chemical bonding, stoichiometry, gas laws, solutions, equilibrium, acids and bases, and nuclear chemistry. Lecture and lab.

PREREQUISITE(S): MTH 111 or equivalent

GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

CEM 102 FUNDAMENTALS OF BIOORGANIC CHEMISTRY  (W)  5(4-3-0)
An introductory organic and biochemistry class for students entering allied health fields or wishing to prepare for Organic Chemistry, CEM 231. Studies the nomenclature of organic compounds, organic functional groups and their reactivities; stereochemistry, major biomolecules and their metabolism, enzymes and chemistry of heredity. Lecture and Lab.

PREREQUISITE(S): CEM 101 or equivalent

CEM 110 CHEMISTRY OF CHOCOLATE  3(3-0-0)
An examination of the principles of cacao bean harvesting and chocolate processing. It will then look at the chemistry and health issues of cocoa butter and the constituent fatty acids. The presence of antioxidants in chocolate will then be discussed. The next topic will be the chemistry and physiological effect of caffeine and related compounds in chocolate. Finally the class will examine the relationships, if any, between chocolate and obesity, dental health, headaches, exercise performance, and acne. There is no chemistry prerequisite. The underlying chemistry will be taught as it is needed. This course does not satisfy General Education requirements.

CEM 121 PRINCIPLES OF CHEMISTRY I  (F)  5(4-3-0)
This course deals with the principles of chemical properties, structure, and change. Consideration is given to atomic structure, chemical bonding, stoichiometry, thermochemistry, gas laws, atomic properties, periodic table, and states of matter. Lecture and Lab.

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
CEM 122  PRINCIPLES OF CHEMISTRY II  (W)  5(4-3-0)
A continuation of CEM 121. Topics including solutions, kinetics, equilibrium, thermodynamics, acids and bases, electrochemistry, qualitative inorganic analysis and nuclear chemistry are discussed. Lecture and Lab.
PREREQUISITE(S): MTH 113 or equivalent

CEM 212  QUANTITATIVE ANALYSIS  4(3-3-0)
Gravimetric, volumetric, spectroscopic, and electroanalytical methods of analysis.
PREREQUISITE(S): CEM 121

CEM 231  ORGANIC CHEMISTRY I  (F)  5(4-3-0)
This course deals with the structure, nomenclature, physical properties, preparations and reactions of alkanes, alkenes, alkynes, alcohols, and ethers. Structures and reactions are examined in the light of electron theory and energy relations. Lecture and Lab.
PREREQUISITE(S): CEM 122

CEM 232  ORGANIC CHEMISTRY II  (W,S)  5(4-3-0)
A continuation of CEM 231. Topics include the structure, nomenclature, physical properties, preparation and reactions of aromatics, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives and amines. Structures and reactions are examined in the light of electron theory and energy relations. Polymers and biomolecules are also introduced. Lecture and Lab.
PREREQUISITE(S): CEM 122

CEM 297  SPECIAL TOPICS IN CHEMISTRY  2(2-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

(CIS) Computer Information Systems

CIS 100  INTRODUCTION TO COMPUTERS  (F,W,S)  3(3-0-0)
The course is a general introduction to computers focusing on computer concepts and terminology and the components and functions of computer system hardware and software. Lab work includes introduction to operating systems, the spreadsheet, word processing and database.
ADVISING NOTE: Students looking for a how-to-course in managing their own personal computers should take CAP 100 instead of this course.

CIS 104  INTRODUCTION TO PROGRAMMING LOGIC  (F)  3(3-0-0)
Provides the beginning programmer with a guide to developing structured program logic. The course assumes no programming experience and does not focus on any one particular language. It introduces programming concepts and enforces good style and logical thinking. Students will learn basic programming structure, flowcharts and documentation, and how to solve difficult structuring programs. NOTE: Check formatting in original catalog

CIS 105  VISUAL BASIC PROGRAMMING I  (F,W)  3(2-2-0)
An introduction to programming in a Windows environment using MS Visual BASIC. Students will learn program development tools, object oriented programming techniques and will develop applications by creating objects, user interfaces and procedures. CIS 105 is recommended as a first programming language course for students with minimal programming experience. Students should be skilled in file management within Windows and use of Windows’ accessories; if not, these skills should first be acquired in CIS 120 PREREQUISITE(S): CIS 100

CIS 115  C++ PROGRAMMING I  (W)  3(2-2-0)
An introductory course in object-oriented design and programming using the C++ language. Sample topics include libraries, data types, expressions, arrays, conditionals and looping functions, custom date types, console and file I/O. (CIS 105 is recommended as a first programming language course for students with minimal programming.
experience. Students with minimal programming experience. Students should be skilled in file management within Windows and use of Windows’ accessories; if not these skills should first be acquired in CIS 100).

**CIS 120  Intro to PC Operating Systems**  (F)  3(2-2-0)
An introduction to common operating systems for the personal computer. The course introduces the basic Operating Systems functions necessary in both text-based and graphic environments for Operating Systems management. Windows command line is taught to address the security issue in operating systems. Students will learn command shell and write command lines to interact with file system, network and users, and processes and services.
PREREQUISITE(S): CIS100

**CIS 121  PC OPERATING SYSTEMS II**  (W)  3(2-2-0)
Focuses on supporting users and trouble-shooting desktop applications on Microsoft Windows XP Operating Systems. Topics such as user-related configuration, resolving issues relating to Operating Systems customization, and troubleshooting devices and connectivity are covered. Using a hands-on approach, this course prepares students to take the Microsoft Desktop Support Technician (MCDST) exam #70-272.
PREREQUISITE(S): CIS 100

**CIS 125  PC HARDWARE**  
An introduction to computer hardware components, maintenance and upgrade operations a PC owner might perform. This course deals with components such as system boards, adapter cards, hard and floppy disk drives, monitors, memory modules and tape backup units. This course and CIS 120 will aid those seeking A+ certification.
PREREQUISITE(S): CIS 100

**CIS 140  INTRODUCTION TO UNIX**  (F)  3(2-2-0)
This is an in-depth course on the UNIX/Linux operating systems, which are widely used on the Internet and large corporate networks worldwide. Topics include learning the command syntax of the UNIX/Linux operating systems, text editing, file processing, and the file and directory structure of a UNIX/Linux-based computer. Shells, shell scripting, and Perl will also be taught.
PREREQUISITE(S): CIS 100 or permission of the instructor

**CIS 145  ePORTAL DEVELOPMENT**  (W)  3(2-2-0)
PHP, Apache, and MySQL are the three key open source technologies that form the basis for most active Web servers. The core component of this course is developing e-Commerce websites using the open source AMP (Apache, MYSQL, PHP/Perl) model. The coursework involves creating PHP Web pages, developing database application and security, and integrating PHP with e-commerce and other technologies. Web sites are developed with strong links to real world business applications.
PREREQUISITE(S): CIS 105 or any other programming language

**CIS 150  INTRODUCTION TO DATABASE ADMINISTRATION**  3(2-2-0)
Introduces the concept of and provides hands-on experience with database administration. Students will learn how to set up, administer, tune, troubleshoot, and secure a robust database system. In addition, this course also introduces fundamental database concepts and simple Structured Query Language (SQL) and exposes the students to database backup and recovery.
PREREQUISITE(S): CIS 100

**CIS 205  C++ PROGRAMMING II**  (F)  3(2-2-0)
Advanced C++ Programming, a continuation of CIS 115. Sample topics include arrays, dynamic data types, classes, pointers, and references, inheritance, linked lists, stream and file I/O, and Microsoft Foundation Classes. There will also be discussion on current topics related to C++, programming development, and the implications of .NET.
PREREQUISITE(S): CIS 115 or equivalent

**CIS 215  DATABASE DESIGN AND MANAGEMENT**  (W)  3(2-2-0)
Introduces the concepts of relational databases, logical database design, and database development. Students will learn about conceptual data modeling, relational data modeling, and normalization. Using Structured Query Language (SQL), students will gain hands-on experience in developing databases and manipulating data. Nested queries and PL/SQL (Procedural Language) will be introduced in this class.
CIS 220 VISUAL BASIC PROGRAMMING II (F) 3(2-2-0)
Develops competency in business application programming using the Visual Basic language. Students will design and create solutions to common business problems using advanced Visual Basic tools to create a sophisticated user interface. Strong emphasis will be placed on object-oriented programming and programs that interact with files and relational database.
PREREQUISITE(S): CIS 100 and at least one of the following: CIS 104, CIS 105 or CIS 115

CIS 225 INTRODUCTION TO JAVA PROGRAMMING I 3(2-2-0)
An introductory course in object oriented design and programming using the Java language. Sample topics include defining objects from business requirements, classes and objects, data types, operators, conditional logic constructs, looping constructs, arrays and collections, exception handling, file and other I/O, graphical user interface (GUI), event handling, applications and Web based applets and creating HTML documentation using the JavaDoc utility. This course covers 10 of the 13 objectives from the industry recognized Sun Microsystems Java Programmer Certification Exam.
PREREQUISITE(S): CIS 105

CIS 240 LINUX/UNIX SYSTEM ADMINISTRATION (W) 3(2-2-0)
This is an in-depth course split into two parts: Part one covers SYSTEM administration of UNIX/Linux environments with topics that include: installation, system configuration, user management, printer administration, RCS, kernel management, security, system logging, disaster recovery, file system management, hardware management, application installation package management, process management, and troubleshooting. Part two covers NETWORK administration of UNIX/Linux environments with topics that include network hardware, TCP/IP protocol suite (TCP, IP, DNS, DHCP) setup and administration, network services (HTTP, FTP, SMTP, NFS) setup and administration, and network troubleshooting. Overview of iptables, tripwire, POP3, IMAP4, Xwindows, SMB, SSH, remote access, and environment documentation is also provided.
PREREQUISITE(S): CIS 140

CIS 280 INTERNSHIP/PROJECT (F,W,S) 3(0-0-12)
Students will develop an information system from its investigation phase through analysis, design, implementation, installation and review. Students will not be placed with their current employer.
PREREQUISITE(S): Students must complete all CIS program requirements with at least a 2.75 G.P.A. and arrange scheduling of this course with the CIS advisor and the Work Based Learning Coordinator at least one semester prior to enrollment.

CIS 297 SPECIAL TOPICS IN COMPUTER INFORMATION SYSTEMS 3(2-2-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

CIS 299 INDEPENDENT STUDY 3(3-0-0)
A course offering students the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements for a project under the supervision of a professor of their choice in the discipline the project will cover.
PREREQUISITE(S): Permission of the instructor (CJ) Criminal Justice

(CJ) Criminal Justice

CJ 101 CRIMINOLOGY (F,W) 3 (3-0-0)
An introduction to deviant behavior and current criminological theories with emphasis on synthesis and police applications, crime prevention and the phenomena of crime. The course also includes an introduction to the social aspects of criminal law.

CJ 102 INTRODUCTION TO CRIMINAL JUSTICE (F) 3(3-0-0)

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
A survey of criminal justice institutions and functions including the system, the police, corrections, and the juvenile justice system. The roles and responsibilities of the general public and government officials are addressed, as well as the history, philosophy and methods of operations.

**CJ 120 INTRODUCTION TO CORRECTIONS**  
3(3-0-0)  
A course for persons employed in or interested in a career in the broad field of correctional administration. This course will review the origin of corrections in America, current status, future outlook and some of the issues facing corrections administrators today. Emphasis is of the multi-faceted approach to corrections in contemporary society.

**CJ 130 POLICE PROCESS**  
3(3-0-0)  
The role of law enforcement in the criminal justice system and society at large is explored. Emphasis is placed on the history and current practices of policing the demands and rewards of careers in law enforcement, and the dilemma inherent in policing a free society.

**CJ 195 POLICE PRACTICUM/INTERNSHIP**  
2(0-0-8)  
This course will provide Law Enforcement students with the practical experience of observing the daily activities of a police officer. This will insure that students will understand what law enforcement officers actually do. Recording the daily experiences will also assist the student in report writing. All students who enroll in this course must be a criminal justice student pursuing a career in law enforcement, must be in good physical health, not convicted of a felony, not involved in any civil matters, must submit to a background check and must be at least 18 years of age. Minimum GPA 2.0 Required.  
PREREQUISITE(S): ENG 111, CJ 101, CJ 102, CJ 120, and CJ 130

**CJ 202 CRIMINAL INVESTIGATION**  
3(3-0-0)  
An introduction to criminal investigation procedures including theory of an investigation; conduct at crime scenes; collection and preservation of physical evidence; interviewing of witnesses and suspects; proper report writing, documentation and follow-through with court procedures. Students will learn of the resources available to properly conduct an investigation; internal (within a department) and external (computer data bases/intelligence units resources, crime laboratories and prosecutor’s office).

**CJ 207 CRIMINAL LAW**  
3(3-0-0)  
The philosophy and sociology of criminal law, including history, development and ethical considerations in criminal legislation. Emphasis is placed on current criminal statutes and their interpretation in relation to specific crimes.

**CJ 210 CURRENT ISSUES IN CRIMINAL JUSTICE**  
3(3-0-0)  
A study of special problems, theories and developments in the criminal justice system. Specific case studies are explored.  
PREREQUISITE(S): CJ sequence

**CJ 217 CRIMINAL PROCEDURES**  
3(3-0-0)  
A study of the application of criminal law in our society today. Procedural aspects of defendant identification, defendant interrogation, and the law of search and seizure are included.

**COM) Communications**

**COM 105 MASS MEDIA**  
3(3-0-0)  
Introduces students to mass media, particularly U.S. mass media. The course emphasizes the information-gathering and content dissemination activities of mass media for the understanding of how the media operates and how content decisions are made. The history, development and current structure of the media are covered. Those considering a career in news, public relations, advertising and entertainment will have a better understanding of the field and others will have a better understanding of the mass media they encounter daily.

**COM 111 SPEECH**  
3(3-0-0)  
A course in the basic principles of extemporaneous public speaking emphasizing the essential elements of researching and organizing material, analysis of argument and effective delivery.
### GENERAL EDUCATION DISTRIBUTION AREA: Communications

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
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<tbody>
<tr>
<td>COM 121</td>
<td>ORAL INTERPRETATION</td>
<td>3(3-0-0)</td>
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<td>This course is an introduction to the analysis,</td>
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<td>interpretation, rehearsal, and oral performance</td>
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<td>of literature. Students work with selections of</td>
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<td>prose, poetry, and drama written for adults and</td>
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<td>COM 130</td>
<td>INTRODUCTION TO AMERICAN SIGN LANGUAGE (F,W)</td>
<td>3(3-0-0)</td>
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<td>An entry-level course designed to teach students</td>
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<td>basic sign language skills. The class begins with</td>
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<td>the manual alphabet, adding formal signs weekly in</td>
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<td>categories. Each class session students are given</td>
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<td>opportunities to develop their signing and</td>
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<td>interpreting skills through group activities.</td>
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<td>Discussion of deaf culture, causes of hearing</td>
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<td>impairment, and other related issues are ongoing</td>
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<td>PREREQUISITE(S): Students must have the ability</td>
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<td></td>
<td>motorically to use one or both hands to form</td>
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<td></td>
<td>manual signs and the manual alphabet.</td>
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<tr>
<td>COM 170</td>
<td>INTERPERSONAL COMMUNICATION (F,W)</td>
<td>3(3-0-0)</td>
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<tr>
<td></td>
<td>This course is designed to explore and develop an</td>
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<td></td>
<td>individual’s communication skills within the</td>
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<td></td>
<td>context of interpersonal relationships, small</td>
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<td></td>
<td>groups and society as a whole. Over the course of</td>
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<td></td>
<td>the semester, a variety of educational approaches</td>
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<td></td>
<td>may be used including writing, speaking,</td>
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<td></td>
<td>collaborative and independent learning, role</td>
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<td>playing, independent research and written reports.</td>
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<tr>
<td>COM 225</td>
<td>NONVERBAL COMMUNICATION</td>
<td>3(3-0-0)</td>
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<tr>
<td></td>
<td>Focuses on history, types and functions of</td>
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<td></td>
<td>nonverbal communication, allowing students to gain</td>
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<td></td>
<td>a stronger awareness of their own and others’</td>
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<td>nonverbal behaviors and become more effective</td>
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<td></td>
<td>participants in the social interaction process.</td>
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<tr>
<td>COM 235</td>
<td>COMMUNICATION, GENDER AND CULTURE</td>
<td>3(3-0-0)</td>
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<tr>
<td></td>
<td>Focuses on the interactive and reciprocal</td>
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<td></td>
<td>relationship between gender and communication</td>
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<td>in contemporary American society. We will explore</td>
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<td></td>
<td>how communication shapes, reinforces, and resists</td>
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<td></td>
<td>definitions of gender and, simultaneously, how</td>
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<td>communication directly influences how we live</td>
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<td></td>
<td>gendered lives. You will learn the ways gender</td>
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<td>is communicated (how we come to know what it is</td>
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<td>to be a woman or a man), the multiple ways humans</td>
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<td></td>
<td>communicate within and across gender lines (how</td>
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<td></td>
<td>and why we express ourselves differently as men</td>
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<td></td>
<td>and women), and the role gender plays in</td>
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<td></td>
<td>friendship, family and romance. Gender issues</td>
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<td>relative to education, organizations, the mass</td>
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<td>media, and power and violence will also be</td>
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<td></td>
<td>explored.</td>
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<tr>
<td>COM 250</td>
<td>SMALL GROUP COMMUNICATIONS</td>
<td>3(3-0-0)</td>
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<tr>
<td></td>
<td>A study of the theories, principles, and practices</td>
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<td></td>
<td>that govern small-group communication in business,</td>
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<td>government, and the wider community. The course</td>
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<td>will primarily deal with task-oriented small</td>
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<td>groups – groups with a specific objective to</td>
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<td>achieve, information to share, a problem to solve,</td>
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<td></td>
<td>or a decision to make. Topics include group</td>
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<td>formation, team building, group roles in</td>
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<td>decision-making, leadership, and conflict</td>
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<td>resolution. An introductory course in</td>
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<td>communications is recommended before taking this</td>
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<td>course.</td>
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<td>COM 295</td>
<td>FIELD STUDIES IN COMMUNICATION</td>
<td>5(5-0-0)</td>
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<tr>
<td></td>
<td>Offers students opportunities to explore topics</td>
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<td></td>
<td>and activities in communication outside the</td>
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<td>traditional classroom/lab setting. Description</td>
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<td>of specific activities, locations, credit values,</td>
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<td>and student responsibilities will vary and be</td>
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<td>announced prior to class registration. Course</td>
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<td>fees will reflect trip expenses.</td>
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<td>PREREQUISITE(S): Permission of the instructor.</td>
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<tr>
<td>COM 297</td>
<td>SPECIAL TOPICS IN COMMUNICATIONS</td>
<td>3(3-0-0)</td>
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<tr>
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<td>Special Topics courses provide opportunities for</td>
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<td>focused study with full-time or adjunct</td>
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<td>instructors teaching in their areas of</td>
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<td>expertise.</td>
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(ECE) Early Childhood Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 105</td>
<td>FOUNDATIONS OF EARLY CHILDHOOD EDUCATION (F,W)</td>
<td>3(3-0-0)</td>
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</tbody>
</table>

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
An introduction to the field of early childhood education from infancy through school age. Topics include historical and theoretical perspectives, types of programs and curricula, developmentally appropriate practices, assessment tools, and quality standards in programs. Observations in programs are included.

**ECE 110 CURRICULUM AND METHODS**  
(F,W) 3(3-0-0)  
Students will plan, implement, and evaluate developmentally appropriate curriculum and teacher practices that support the social, physical, emotional, cognitive, language, and aesthetic development of children. Topics covered include child centered learning, use of themes and centers, child management techniques, and informal and formal assessment tools and strategies.  
NOTE: This course meets the CDA Credential training requirements.

**ECE 120 ADMINISTRATION OF PROGRAMS**  
(F,W) 3(3-0-0)  
Students will apply knowledge of the basic principles of the financial, legal, supervisory and administrative procedures used in operating an early childhood program. Topics include policies and goal setting, safety, health and nutrition, licensing requirements, budget and record keeping, parent/school communication, personnel management, and professionalism.  
NOTE: This course satisfies the CDA Credential training requirements.

**ECE 130 CHILD GUIDANCE AND COMMUNICATION SKILLS**  
(F,W) 3(3-0-0)  
Practical application of positive and supportive relationship building skills for parents and professionals working with children and families. Topics include building self-esteem, family systems theory, individual and group management strategies, addressing diversity issues, non-verbal communication, and dealing with misbehavior and at risk children.  
NOTE: This course satisfies the training requirement for the CDA Credential competency goal III: To support social and emotional development and provide positive guidance and IV: To establish positive and productive relationships with families.

**ECE 210 INFANTS AND TODDLERS**  
(F) 3(3-0-0)  
Students will begin to develop knowledge of the unique needs and developmental abilities of infants and toddlers and methods for providing opportunities for learning and growth through care-giving routines and play. Topics covered include physical, intellectual, social, emotional, aesthetic, and family dynamics in the first three years of life.

**ECE 220 CHILDREN WITH SPECIAL NEEDS**  
(F,W) 3(3-0-0)  
An overview of the diverse learning needs of young children. Students will learn to differentiate between normal developmental patterns and children with special needs. Emphasis will be on identifying appropriate support services for assessment and diagnosis of developmental needs. Discussion will include strategies for early intervention, family support, and curriculum resources.

**ECE 282 ECE PRACTICUM/SEMINAR**  
(W) 7(3-0-12)  
This course is a capstone experience for the student who has a sound understanding of early childhood education theory and practice. The student will spend three hours a week in a college seminar and 12 hours a week in a college approved early childhood program under the supervision of a qualified professional. The student will observe, participate and work effectively with children and adults in a variety of early childhood settings. Placement sites include the child care centers, Head Start, public and private preschool programs and kindergarten through second grade classrooms. The student must meet with ECE Program Coordinator for program audit and required field placement forms before enrolling.  
PREREQUISITE(S): PSY 255, ECE 110 ECE 120, ECE 130, ECE 210, ECE 220

**ECE 299 INDEPENDENT STUDY - ECE**  
3(3-0-0)  
Independent Study is designed for students who have surpassed the normal scope of course offerings in a given discipline.

(ECO) Economics
ECO 111 MACROECONOMICS (F,W) 3(3-0-0)
An introduction to basic macroeconomic concepts and theories and their application to current economic issues. Macroeconomics focuses on the aggregate behavior of households and firms in the economy. Major topics include supply, demand, and the market system; national income determinants; unemployment; inflation; international trade; and fiscal and monetary policy.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group A

ECO 112 MICROECONOMICS (F,W) 3(3-0-0)
An introduction to basic microeconomic concepts and theories and their application to current economic issues. Microeconomics focuses on the behavior and decisions of individual consumers and firms. Major topics include supply and demand, the impacts of public policy, elasticity, consumer choice theory, the costs and production of firms, and the decisions of firms in competitive and monopolistic markets.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

(ED) Education

ED 100 INTRODUCTION TO EDUCATION (W) 3(3-0-0)
ED 100 is designed for students who are thinking seriously about becoming teachers. This course is important for students transferring to four-year college programs that require supervised classroom experience for admission into the school of education. Students find their own supervising classroom teachers and spend 90 hours in public school observing, documenting their experiences and assisting in the classroom. In addition to the 90 hour commitment, students attend a weekly seminar, discuss, research and deliver presentations on relevant educational issues and develop a professional portfolio.
PREREQUISITE(S): sophomore standing.

ED 299 INDEPENDENT STUDY – EDUCATION 3(3-0-0)
Independent Study is designed for students who have surpassed the normal scope of course offerings in a given discipline.

(EMS) Emergency Medical Services

EMS 101 CPR AND FIRST AID (F,W,S) 1(.5-1-0)
Students practice adult, child and infant cardiopulmonary resuscitation as well as standard first aid. Students learn how to handle medical or accident emergencies until professional help arrives or until the victim can seek help, and minor injuries that do not require professional assistance. Upon successful completion of this course, students are qualified to receive CPR for the Professional Rescuer and Standard First Aid Certificates.

EMS 105 MEDICAL FIRST RESPONDER 5(4-2-0)
Prepares students to function in an emergency medical services within the scope and responsibilities of a Medical First Responder. Didactic instruction and hands-on skills lab practice are provided.

EMS 110 EMT BASIC (F,W) 9(7-2-3)
Follows the outline prescribed by the National Registry and the State of Michigan to receive National Registry Certification as a Basic Emergency Medical Technician. The course involves classroom, hands-on instruction both in the College lab and clinical sites. Students may be expected to spend time beyond that indicated in the syllabus to achieve course objectives. Students must pass this course with a 77% or better in order to enroll in advanced paramedic courses.
PREREQUISITE(S): valid driver’s license, no felony convictions, completed physical examination, immunizations, and current health insurance prior to clinical.

STUDENTS MUST SUBMIT PROOF OF IMMUNITY, COMPLETED PHYSICAL EXAM, PROOF OF INSURANCE, AND SUBMIT WAIVER FOR A BACKGROUND CHECK TO THE NURSING AND ALLIED

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HEALTH DEPT. BEFORE THEY CAN TAKE PART IN ANY CLINICAL EXPERIENCES. Students must be 18 years of age at the time they sit for licensure.

**EMS 120 ** PARAMEDIC 1  **(W)** 6(4-2-4)
Part of a composite program that is designed to prepare the student to function safely and effectively in the role of the EMS Paramedic Specialist in the emergency setting. This course introduces students to the preparatory information needed to work in the paramedic field. Material addressed in lecture will include basic A & P, EMS system operations, well-being of the paramedic, therapeutic communications, lifespan development, history taking, techniques of physical exam, assessment based management, medical-legal issues and ethical issues. Upon completion of this class the student will be qualified to sit for the Michigan State Board Exam at the Specialist level.
PREREQUISITE(S): EMS 110 with a C or above and the ability to sit for Michigan Basic EMT Licensure

**EMS 130 ** PARAMEDIC 2  **(S)** 9(6-4-4)
A continuation of EMS 120 addressing venous access and medication administration, airway management, patient assessment, and traumatic emergencies.
PREREQUISITE(S): EMS 120 with a “C” or above within one year of registration for EMS 130.

**EMS 220 ** PARAMEDIC 3  **(F)** 10(7-4-4)
A continuation of EMS 130 designed to prepare the student to pass the National Registry Examination for Paramedics. This course will cover all aspects of pre-hospital care to include medical emergencies and populations requiring special consideration. Structured clinical experiences in pre-hospital and hospital settings are included. Material covered in class includes: Cardiology, pulmonary, neurology, endocrinology, anaphylaxis, gastroenterology, renal/urology, toxicology, hematology, environmental conditions, behavioral psychiatric disorders, geriatrics, patient assessment and clinical decision-making, trauma and traumatic emergencies. Students will also complete an ACLS course as well as an advanced trauma course.
PREREQUISITE(S): EMS 130 with a C or above

**EMS 230 ** PARAMEDIC 4  **(W)** 10(6-6-4)
A continuation of EMS 220 designed to prepare the student to pass the National Registry Examination for Paramedics. This course will cover all aspects of pre-hospital care to include pediatric patients, assessment based management, EMS operations, review of BLS and ACLS skills and preparation for the National Registry Certification Examination. Provides structured clinical experiences in pre-hospital and hospital settings. Material covered in class includes: gynecology, obstetrics, neonatology, pediatrics, infectious diseases, assault and abuse, special challenges, chronic care patients, assessment based management, medical incident command, Haz Mat, rescue awareness and operations, and crime scene.
Students will also complete an advanced pediatric-specific course.
PREREQUISITE(S): EMS 220 with a C or above

**EMS 270 ** PARAMEDIC FIELD INTERNSHIP  **(S)** 4(0-0-18)
Supervised experience in the pre-hospital care setting in a private paramedic service or an ambulance based paramedic service. This will aid the paramedic student in an understanding of the Advanced Life Support system. This will provide the student with the opportunity to utilize skills as a team member and progress to function as a team leader under the direct supervision of a paramedic in a field setting. Includes directing activities at the scene, delegating patient care responsibilities and providing coordination of events from dispatch to the transfer of patient care to the emergency care physician. Students are required to maintain current immunizations, health insurance and BLS for the professional rescuer.
PREREQUISITE(S): Completion of all paramedic program requirements with a C or above

(ENG) English

**ENG 090 ** WRITING FUNDAMENTALS  **(F,W,S)** 3(3-0-0)
Prepares students for college-level writing by addressing fundamental writing skills such as basic sentence structure, grammar and mechanics, and methods for developing and organizing paragraphs with a process-oriented approach.
NOTE: This course is offered on a Pass-Fail basis and does not count toward graduation. Students must earn a 75% or better to pass.

PREREQUISITE(S): Placement according to Learning Support Services (ACT, COMPASS, etc.).

**ENG 095 COLLEGE PREP WRITING**
(F,W,S) 3(3-0-0)
Develops students’ writing skills to prepare them for college-level writing in English 111. Students will transition from paragraphs to essays. They will write, edit, and revise expository prose. This course is offered on a Pass-Fail basis and does not count toward graduation. Students must earn a 75% or better to pass.

PREREQUISITE(S): Successful completion of ENG 090, or mandatory placement per COMPASS (reading, writing, and e-write) or ACT scores. Contact Student Services.

**ENG 111 ENGLISH COMPOSITION I**
(F,W,S) 3(3-0-0)
This course emphasizes language skills, particularly essay writing, but also reading, speaking and listening. Reading and writing are explored in the general categories of description, narration, exposition, argumentation, and writing on demand. Students enrolling in ENG 111 should have a basic mastery of fundamental writing skills. Successful completion of the course is dependent upon a final portfolio assessment that will be anonymously evaluated by English Department faculty.

PREREQUISITE(S): COMPASS score of 63 or higher, or ACT score of at least 18

GENERAL EDUCATION DISTRIBUTION AREA: Communication

**ENG 112 ENGLISH COMPOSITION II**
(F,W,S) 3(3-0-0)
Strengthens and develops writing skills covered in English 111, emphasizing research techniques and the necessity of logical support, structure, style and documentation. Students are encouraged to consider their professional and academic goals as they conduct their research.

PREREQUISITE(S): ENG 111

GENERAL EDUCATION DISTRIBUTION AREA: Communications

**ENG 130 INTRODUCTION TO LITERATURE**
(F,W,S) 3(3-0-0)
An introduction to the major genres of literature: short story, poetry, novel drama and analytical prose. This course considers the elements of literature including plot, structure, characterization, symbolism, and conflict. Emphasis is on developing a fundamental understanding and enjoyment of literature.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group A

**ENG 210 CREATIVE WRITING I**
(F) 3(3-0-0)
A writing course for students who have sufficiently mastered the basic skills in ENG 111 and 112. Emphasis is on developing rhetorical proficiency through a variety of writing exercises, especially imaginative.

PREREQUISITE(S): ENG 111 and 112

**ENG 213 SHAKESPEARE I**
(F) 3(3-0-0)
A study of selected works from comedies and tragedies in their Elizabethan and contemporary context. Plays will be read and discussed as dramatic literature, viewed in whole or in part on film, or seen on stage.

PREREQUISITE(S): ENG 112 or ENG 130

GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

**ENG 214 SHAKESPEARE II**
(F) 3(3-0-0)
A study of selected works from comedies and tragedies in their Elizabethan and contemporary context. Plays will be read and discussed as dramatic literature, viewed in whole or in part on film, or seen on stage.

PREREQUISITE(S): ENG 112 or ENG 130

GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

**ENG 215 INTRODUCTION TO POETRY**
(F,W) 3(3-0-0)
This introductory course is designed for students with little or no experience with poetry, but genuine curiosity about it. Students examine many aspects of poetry, both spoken and written, including the terminology necessary for discussing it and the historical and cultural contexts in which it is found.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Pre-requisites</th>
<th>General Education Distribution Area</th>
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<tbody>
<tr>
<td>ENG 220</td>
<td>CREATIVE WRITING II</td>
<td>3</td>
<td>ENG 210 or permission of the instructor.</td>
<td>Humanities Group A</td>
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<tr>
<td>ENG 221</td>
<td>BRITISH LITERATURE I</td>
<td>3</td>
<td>ENG 112 or ENG 130</td>
<td>Humanities Group A</td>
</tr>
<tr>
<td>ENG 222</td>
<td>BRITISH LITERATURE II</td>
<td>3</td>
<td>ENG 112 or ENG 130</td>
<td>Humanities Group A</td>
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<tr>
<td>ENG 231</td>
<td>AMERICAN LITERATURE I (F)</td>
<td>3</td>
<td>ENG 112 or ENG 130</td>
<td>Humanities Group A</td>
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<tr>
<td>ENG 232</td>
<td>AMERICAN LITERATURE AFTER THE CIVIL WAR (W)</td>
<td>3</td>
<td>ENG 112 or ENG 130</td>
<td>Humanities Group A</td>
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<tr>
<td>ENG 240</td>
<td>INTRODUCTION TO CHILDREN’S LITERATURE (F,W)</td>
<td>3</td>
<td>ENG 112 or ENG 130</td>
<td>Humanities Group B</td>
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<tr>
<td>ENG 241</td>
<td>WORLD LITERATURE, ANCIENT-1700 (F,W)</td>
<td>3</td>
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<td>Humanities Group A</td>
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<tr>
<td>ENG 242</td>
<td>WORLD LITERATURE, 1700-PRESENT</td>
<td>3</td>
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<td>Humanities Group A</td>
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<tr>
<td>ENG 244</td>
<td>MULTICULTURAL LITERATURE (F,W)</td>
<td>3</td>
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<td>Humanities Group A</td>
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<tr>
<td>ENG 245</td>
<td>INTRODUCTION TO LINGUISTICS</td>
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<td>Humanities Group B</td>
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</table>
Disciplines that will be covered include phonology, morphology, syntax, semantics, language acquisition, and pragmatics.

ENG 250  MYTHOLOGY  (F,W)  3(3-0-0)
An examination of mythology with emphasis on Greek and Roman myths. Examines how myths derive from and influence the mind of a culture both socially and aesthetically. The myths are looked at as works of art in their own right and also as metaphors expressing a society’s major values, themes and preoccupations.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

ENG 251  CONTEMPORARY LITERATURE I  3(3-0-0)
An examination of contemporary fiction and non-fiction. This course provides students with the opportunity to examine contemporary themes and cultural perspectives through a variety of forms.
PREREQUISITE(S): ENG 112 or ENG 130
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

ENG 252  CONTEMPORARY LITERATURE II  3(3-0-0)
An examination of contemporary fiction and non-fiction, covering different readings from those included in ENG 251. This course provides students with the opportunity to examine contemporary themes and cultural perspectives through a variety of forms.
PREREQUISITE(S): ENG 112 or ENG 130
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

ENG 255  MODERN MYTHOLOGY: TOLKIEN & LEWIS  (F)  3(3-0-0)
An examination of a selection of works by two of the most popular fantasy writers of the 20th century.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

ENG 290  INTRODUCTION TO WRITING FOR FILM & VIDEO  3(3-0-0)
An introduction to the basics of writing for narrative film and video with emphasis on writing for single camera production. Exercises will focus on proper formats, formation of ideas, story, character, and scene development, as well as structure, conflict, locale and theme. Discussion will include the aspects of available technology for screenwriters and available formatting software programs.
PREREQUISITE(S): ENG 111

ENG 295  FIELD STUDIES IN ENGLISH  5 (5-0-0)
Offers students opportunities to explore topics and activities in English outside the traditional classroom/lab setting. Description of specific activities, locations, credit values, and student responsibilities will vary and be announced prior to class registration. Course fees will reflect trip expenses.
PREREQUISITE(S): Permission of the instructor

ENG 299  INDEPENDENT STUDY ENGLISH  3(3-0-0)
An opportunity for students to conduct in depth studies in their fields of interest. Students make arrangements for a project under the supervision of a professor of their choice in the discipline the project will cover.

(ENGR) Engineering

ENGR 101  INTRODUCTION TO ENGINEERING  (W)  3 (3-0-0)
An introduction to the engineering profession and the engineering problem solving method. Topics will include an overview of the main engineering disciplines, mathematical tools to solve engineering problems, quality control, data analysis, graphical representation and engineering economics. Also included will be a discussion of the four-year engineering programs at various colleges and universities. Students with an interest in pursuing engineering may wish to take this course as a first step in their career.
PREREQUISITE(S): MTH 113

ENGR 107  ENGINEERING GRAPHICS  (F)  3(3-0-0)
An introductory course in the technical language of drafting, this course is designed for persons planning to enter an occupation where technical drawings are a primary means of communication. Topics covered include: sketching, pictorial and orthographic projection, drawing techniques, types of views and drawings, title block, materials, change system, callouts, gears, serrations, dimensioning, geometric dimensioning and tolerancing, and an introduction to CAD.

**ENGR 120  INTRODUCTION TO ALTERNATIVE ENERGY**  
3(3-0-0)  
An introduction to alternative and renewable energy. The course will include a survey of past industrial energy practices as background to a review of non-traditional, alternative energy sources. Topics covered may include solar (active/passive and photovoltaic), wind, biomass, hydroelectric, fuel cells, wave and geothermal. Through a historical review and a look towards the future, students will gain knowledge and an appreciation for strengths and weaknesses of traditional and alternative energy sources.  
PREREQUISITE(S): MTH 113

**ENT 110 ESSENTIALS OF ENTREPRENEURSHIP**  
(F)  
3(3-0-0)  
Provides future entrepreneurs with the tools, skills and knowledge they require to master the most important issues involved in starting and managing a successful new business venture. Major topics include the entrepreneurial profile, creative thought processes, strategic management, development of financial and business plans, financing and sources of funds, and building a competitive business.

**ENT 120 FINANCING AN ENTREPRENEURIAL BUSINESS**  
1(1-0-0)  
Examines financing methods and options for the entrepreneur. Topics include bank and private debt financing, equity financing, both public and private, venture capital opportunities and public and private grant opportunities. Students are encouraged to work on their own business plans and ideas in this course.

**ENT 125 LEGAL ISSUES FOR ENTREPRENEURS**  
1(1-0-0)  
Examines legal issues facing businesses, with an emphasis on small businesses and entrepreneurs. Topics include business formation, including types of business structure, labor law*, tax law*, product and personal liability, professional liability protection/coverage, business insurance and investor fraud and patent law. * Students interested in more discussion of labor and tax law are advised to enroll in ENT 130 and/or ENT 135.

**ENT 130 TAX LAW AND POLICY**  
1(1-0-0)  
Examines tax law as it affects the entrepreneur. Topics will include personal and company tax liability stemming from different business structures, payroll and withholding policies and procedures, tax treatment of capital investments and expenses, current tax law and upcoming changes, estate and succession planning.

**ENT 135 HUMAN RESOURCES ISSUE- ENTREPRENEURS**  
1(1-0-0)  
Reviews human resource policy as it affects the entrepreneur. Topics will include labor contracts, at-will employment, interviewing techniques, Michigan and federal labor law and policy, performance evaluations and equal opportunity practices.

**ENT 140 TECHNOLOGY AND ENTREPRENEURSHIP**  
1(1-0-0)  
An introduction to productivity technology and how it can work for the entrepreneur. Topics include brief introduction to information technology terminology and usage, uses and applications of technology in a business, the System Development Life Cycle and how it pertains to the entrepreneur and current and future trends in technology. This is not intended to be a hands on course in computer usage; for that, the student is advised to enroll in a CIS or CAP course, or talk to an advisor.

**ENT 145 ADVERTISING AND THE ENTREPRENEUR**  
1(1-0-0)  
An introduction to advertising methods and techniques for the entrepreneur, with an emphasis on cost effective ways to build awareness of a firm and its products and services. Topics include the four Ps (product, price, place,
promotion), various advertising media and their advantages, basic copywriting and layout, dealing with the media and designing an effective advertising campaign.

**ENT 170  CREATIVIINE BLOCKBUSTING & PROBLEM SOLVING  3(3-0-0)**
An introduction to the creative process with an emphasis on developing practical, marketable ideas. Topics include conceptual blockbusting, thinking differently, examination through case studies of past new product and market developments, finding and harnessing creativity and channeling creativity into worthwhile business ventures.

**(ESC) Earth Science**

**ESC 101  INTRODUCTION TO EARTH SCIENCE  (F,W)  4(3-2-0)**
An integrated study of the Earth that includes introductions to the disciplines of geology, oceanography, meteorology, and astronomy. The emphasis is on the scientific processes common to these disciplines. The course includes laboratory and field work. Lecture and Lab.  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**ESC 110  ENVIRONMENTAL GEOLOGY  4(3-2-0)**
Exploration of the impact of geologic processes on the lives of humans and the effects of human activities on the Earth. Topics will include geologic hazards such as volcanoes, earthquakes, floods, and erosion, along with the environmental impacts of human activities such as mining, oil production, power generation, and waste disposal. In laboratory and field settings students will explore these topics with real world examples from the local area and around the globe.  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**ESC 121  PHYSICAL GEOLOGY  4(3-2-0)**
An introductory course designed to develop an understanding of Earth materials and processes. Students will learn to identify and interpret rocks and minerals. We will explore the relationships between earthquakes, volcanoes, mountains, and plate tectonics. Through field trips and lab exercises we will witness the effects of processes that shape the Earth's surface: wind, waves, streams, and glaciers. Lecture and Lab.  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**ESC 122  THE EARTH THROUGH TIME  4(3-2-0)**
An introduction to Earth history. Students will learn to interpret rock and fossil evidence. Topics include the origin and evolution of life, using fossils to organize the geologic time scale, determining past environments and environmental changes, and methods for determining ages of rocks and timing of geologic events.  
PREREQUISITE(S): ESC 101, ESC 110 or ESC 121  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**ESC 150  WEATHER AND CLIMATE  4(3-2-0)**
An introduction to localized weather and regional climate and the study of how and why they vary over the surface of the Earth. The laboratory elaborates upon the basic physical processes that help to define weather, and includes the use of weather instruments and weather maps.  
PREREQUISITE(S): MTH 111 or equivalent  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**ESC 201  FOUNDATIONS OF ASTRONOMY  4(3-2-0)**
An introductory course in astronomy for students who are interested in science. The course is a survey of the solar system, stars, and galaxies. Application of ideas and mathematical relationships is a fundamental part of this course.  
Lecture and Lab.  
PREREQUISITE(S): MTH 113  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**ESC 210  REMOTE SENSING  3(2-2-0)**
Exploration of the techniques used to study the Earth’s surface from a distance. Topics will include the collection, processing, quality assessment, and interpretation of aerial and satellite imagery. Students will gain hands-on experience interpreting imagery and data gathered via a range of radiation types and sensors. This tool will be applied to the study of erosion, vegetation cover, water issues, land usage, and regional planning.

**PREREQUISITE: GIS 110**

**ESC 230 MINERALOGY AND PETROLOGY** 5(3-4-0)
Study of Earth materials. Students will learn to identify, interpret, and classify rocks and minerals. Special attention will be given to hand specimens and techniques used to identify them in laboratory and field settings. Students will also be exposed to optical (microscopic) and modern analytical techniques used to identify the chemistry and internal structure of minerals and rocks. The class is laboratory intensive. A knowledge of chemistry similar to those topics covered in CEM 101 is recommended.

**PREREQUISITE(S):** ESC 101, or ESC 110, or ESC 121, or ESC 122

**ESC 295 FIELD INVESTIGATIONS IN GEOLOGY** 1-5(variable)
Exploration of the geologic setting of an area of Michigan and/or elsewhere in North America. Students will learn basic field techniques including: navigation, sampling, data cataloging, and field safety. Students will be expected to complete a final presentation of their observations, research techniques, and conclusions. Coursework will include classroom work as well as weekend field trips during the semester or weeklong trips outside of the fall/winter semesters. Students may have the opportunities to participate in a multi-year, regional research project and to present their results at a regional conference. Completion of ESC 230 is recommended, but not required.

**PREREQUISITE(S):** ESC 101, or ESC 110, or ESC 121, or ESC 122

**ESC 297 SPECIAL TOPICS IN EARTH SCIENCE** 3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

**(FR) French**

**FR 101 CONVERSATIONAL FRENCH** 3(3-0-0)
This course emphasizes speaking and listening proficiency through the acquisition of applied vocabulary and grammar to enable students to use French within and beyond the college setting. Language study and this course promote student expression of multicultural sensitivity.

**PREREQUISITE(S):** One year high school French, FR 111 or equivalent

**FR 109 TRAVEL FRENCH** 3(3-0-0)
Promotes French language speaking; listening proficiency and cultural sensitivity within the context of various travel situations, such as: customs, airport, restaurant, hotel, store, market, and emergencies.

**FR 111 ELEMENTARY FRENCH I** (F) 4(4-0-0)
This course enables students to begin acquiring proficiency in French through a communicative and cultural approach. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. Language study and this course promote student expression of cross-cultural perspectives.

**FR 112 ELEMENTARY FRENCH II** 4(4-0-0)
This course enhances proficiency in French and is a continuation of FR 111. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. This course broadens students expression of perspectives and appreciation of French culture.

**PREREQUISITE(S):** FR 111

**FR 211 INTERMEDIATE FRENCH I** (W) 4(4-0-0)
This course enhances proficiency in French through a communicative, cultural, and literature based approach. There is continued emphasis on the development of listening, analytical reading, creative writing and speaking. Multicultural sensitivity is encouraged as well as real-life application of French beyond the college setting.

**PREREQUISITE(S):** FR 112 or two years of high school French or permission of the instructor.

**FR 212 INTERMEDIATE FRENCH II**

4(4-0-0)

This course enhances proficiency in French through a communicative, cultural, and literature based approach. There is broadened emphasis on the development of listening, analytical reading, creative writing and speaking. Multicultural sensitivity is encouraged as well as real-life application of French beyond the college setting.

**PREREQUISITE(S):** FR 211 or three years of high school French or permission of instructor

**FR 297 SPECIAL TOPICS IN FRENCH**

3(3-0-0)

Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

**FR 299 INDEPENDENT STUDY FRENCH**

3(3-0-0)

A course offering students the opportunity to conduct in-depth studies in their field of interest. Students make arrangements for a project under the supervision of an instructor in the discipline.

**(GEO) Geography**

**GEO 111 ELEMENTS OF GEOGRAPHY**

(F,W)

3(3-0-0)

A study of the physical environment and the relationship between human activities and environmental conditions. Topics include climate, land form, earth materials and water bodies.

**GENERAL EDUCATION DISTRIBUTION AREA:** Social Science Group B

**GEO 121 WORLD GEOGRAPHY**

(F,W,S)

4(4-0-0)

A study of the primary cultural regions of the world focusing on such physical factors as topography, climate and vegetation in combination with the human activities of each region. Cultural activities are related to the basic physical environment.

**GENERAL EDUCATION DISTRIBUTION AREA:** Social Science Group A

**GEO 150 CARTOGRAPHY**

3(2-2-0)

An interactive study of maps. Topics will include the history of map making, the different models and projections used to represent the Earth, the variety of map types and their appropriate uses, and the techniques and conventions used in the design of map scales, labels and legends. In a lab setting students will learn to interpret different maps and create their own.

**(GIS) Geographic Information Systems**

**GIS 110 INTRODUCTION TO GEOGRAPHIC INF INFORMATION SYSTEMS I**

3(2-2-0)

Introduction to the concept of Geographic Information Systems and their applications, including basic mapping concepts, coordinate systems, georeferencing spatial data, vector and raster data models, using on-line digital spatial data, creating and editing data and basic database management and spatial analysis. Introduction to various methods of data collection, including on-line, digitizing, and GPS. ArcGIS software will be used for practical exercises.

**GIS 120 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS II**

3(2-2-0)

A more detailed presentation of the theories and procedures introduced in GIS 1. Emphasis will be on advanced techniques in spatial analysis, database management, and data automation. Students will be exposed to a broad range of advanced techniques in ArcGIS and various extensions.

**PREREQUISITE(S):** Introduction to Geographic Information Systems I

**GIS 130 ADVANCED CONCEPTS IN GIS**

3(2-2-0)
Advanced theoretical and technical issues in geographic information science utilizing a problems oriented approach. This course will cover the development and implementation of geographic information science solutions and formal documentation of work.

**PREREQUISITE(S):** GIS 120

**GIS 150 GLOBAL POSITIONING SYSTEMS** 3(3-0-0)
A study of the technology and uses of Global Positioning Systems (GPS). This course is intended as a foundation for students who will be working with GPS units or GPS data in their studies or employment. Topics covered will include the basic components of GPS, gathering positional data, assessing data quality, applications of GPS, and the future of GPS. Students will personally gather, process, and use GPS data using current technology and software applications.

**GIS 285 WORK BASED LEARNING - GIS** 2(0-0-8)
Students are placed in a business or industry setting directly related to their chosen career. Students will participate in the work environment at a preliminary level, which will depend on individual student ability and knowledge. Students are not responsible for goals of the organization. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of classroom prep are included before starting the WBL experience. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Student should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.

**(GR) German**

**GR 111 ELEMENTARY GERMAN I** 4(4-0-0)
This course enables students to begin acquiring proficiency in German through a communicative and cultural approach. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. Language study and this course promote student expression of cross-cultural perspectives.

**GR 112 ELEMENTARY GERMAN II** 4(4-0-0)
This course enhances proficiency in German and is a continuation of GR 111. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. This course broadens student expression of perspectives and appreciation of German culture.

**PREREQUISITE(S):** GR 111 (may be replaced with 2 years of High School German after permission of instructor).

**GR 211 INTERMEDIATE GERMAN I** 4(4-0-0)
This course enhances proficiency in German through a communicative, cultural, and literature based approach. There is continued emphasis on the development of listening, analytical reading, creative writing and speaking. Multicultural sensitivity is encouraged as well as real-life application of German beyond the college setting.

**PREREQUISITE(S):** GR 112

**GR 212 INTERMEDIATE GERMAN II** 4(4-0-0)
This course enhances proficiency in German through a communicative, cultural and literature based approach. This is continued emphasis on the development of listening, analytical reading, creative writing and speaking. Multicultural sensitivity is encouraged as well as real-life application of German beyond the college setting.

**PREREQUISITE(S):** GR 211

**GR 297 SPECIAL TOPICS IN GERMAN** 3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

**GR 299 INDEPENDENT STUDY GERMAN** 3(3-0-0)
A course offering students the opportunity to conduct in-depth studies in their field of interest. Students make arrangements for a project under the supervision of an instructor in the discipline.
(HE) Human Ecology

**HE 200**  
**NUTRITION**  
**(F,W)**  
**3(3-0-0)**  
A course covering the nutrient composition of food; functions of nutrients in the body; recommended amount of nutrients to promote health throughout the life cycle; digestion, metabolism, and absorption of nutrients in the healthy individual; selection of foods to meet the body’s normal nutrient requirements; the meaning of foods to people in religious, cultural, social, psychological, and economic contexts; and the relation of food and nutrition of health.

**HE 297**  
**SPECIAL TOPICS IN HUMAN ECOLOGY**  
**1(1-0-0)**  
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

(HST) History

**HST 131**  
**HISTORY OF U.S. 1607-1877**  
**(F,W)**  
**3(3-0-0)**  
A study of the development of American social, political and economic life from the period of colonial settlement through the Reconstruction.  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group A

**HST 132**  
**HISTORY OF U.S.1877-PRESENT**  
**(F,W)**  
**3(3-0-0)**  
A continuation of HST 131 covering the history of the United States from the end of the Civil War to the present. Emphasis is given to social, economic and political development and America’s role in international relations.  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group A

**HST 140**  
**CELT AND NATUR**  
**3(3-0-0)**  
This course will discuss the cultural legacy of Celtic European Civilization, which for nearly 1000 years impacted a great part of Europe from Spain to the Balkans. The course focuses on the Celtic tribal concepts of the sacred environment in nature. It traces a tradition of holy ecology from pagan times through early Celtic Christianity. The course will discuss the contributions of the Celts to Western thought.  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

**HST 141**  
**CULTURE & MYTH: QUEST FOR THE GRAIL**  
**3(3-0-0)**  
This course will examine the legend of the Holy Grail. The class will include lecture, discussion and guest speakers to examine the relevant religious traditions and historical context of the legend as well as its significance in Western thought.  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

**HST 205**  
**THE CIVIL WAR**  
**(S)**  
**3(3-0-0)**  
This course discusses the Civil War and the events leading to it. Beginning with the Mexican War, it traces the growing tension of the North and South. It discusses the political views of the leaders of both sides as well as the issue of slavery. Specific attention will be given to the 1860 election and the events that led to the secession of the Southern States. The course will examine the military campaigns of the war including the leadership, strategy and tactics of both sides. The crucial factors affecting the outcome of the war will be discussed. The course will also consider how the outcome of the war affected the subsequent development of American society. Satisfies MACRAO Transfer Agreement.  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

**HST 220**  
**CULTURAL HISTORY OF NATIVE AMERICAN**  
**(S)**  
**3(3-0-0)**  
A study of Native American cultures and how they reflected the environments in which they were shaped. General emphasis is on social organization of the family and clan units, along with the societal impacts of a deep faith in supernatural forces that linked human beings to all other living things.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

HST 221 CULTURAL HISTORY OF NATIVE AMERICAN II 3(3-0-0)
A continuation of HST 220 focusing on American Indian language and cultural groups after the coming of the white man. Additional emphasis is on the cultural and economic status of present day Native Americans.

HST 222 WOODLANDS INDIANS, 1800-1980 3(3-0-0)
A continuation of HST 220 and HST 221 focusing on the Native American populations of the Great Lakes region, including Michigan. General emphasis is on the cultural and social changes and conflicts that arose during the nineteenth and twentieth centuries. Additional emphasis is on the reorganizing-politically and socially - of the Native American community due to internal as well as external forces.

HST 231 SURVEY OF EARLY WESTERN CIVILIZATION (F,W) 3(3-0-0)
A study of the social, economic and cultural development of Europe from prehistoric times to the beginning of the 16th century. Special attention is given to the rise and fall of civilizations and their impact on modern development.
PREREQUISITE(S): Minimum 71 COMPASS Reading score, or minimum 17 ACT Reading score, or ENG 111.

HST 232 SURVEY OF LATER WESTERN CIVILIZATION (F,W) 3(3-0-0)
A continuation of HST 231 focusing on the development of Western civilization from the Renaissance to the end of the 19th century. Special attention is given to colonial and national developments and their influence on modern times.
PREREQUISITE(S): Minimum 71 COMPASS Reading score, or minimum 17 ACT Reading score, or ENG 111.

HST 235 WORLD WAR II 3(3-0-0)
A study of the United States’ involvement in World War II. Topics covered include military strategies and battles, important individuals, diplomacy, industrialization, and societal ramifications.

HST 255 HISTORY OF ROCK AND ROLL ERA 3(3-0-0)
Examines the historical origins and evolution of rock and roll music within the context of cultural, social, political, and economic history, elaborating on the pervasiveness and persuasiveness of rock and roll in modern society. Knowledge of US History or a college or high school history course, 1865 to present, is preferred.

HST 258 AMERICA IN THE SIXTIES 3(3-0-0)
A course on American in the 1960’s and its impact on America today. The course is about War and Peace, Black and White, Women and Men, Poetry and Power and the monumental social and cultural explosions in dress, music, life styles and sex. Specific areas of study will include the Kennedy Administration and his assassination, the struggle for racial and gender equality, the Vietnam War at home and abroad, and how these events are connected to the cultural movements that permeated the entire era.

HST 261 INTRODUCTION TO LATIN AMERICA (W) 3(3-0-0)
A historical view of Latin America focusing on the cultural, political, and economic factors in Mexico, Central America, South America, and the Caribbean. The time frame will include Pre-Columbian inhabitants, European Colonization, as well as 19th and 20th century history.

HST 270 MICHIGAN HISTORY (W) 3(3-0-0)
A study of Michigan history from early beginnings (Native American cultures) to present day. A basic chronological approach is followed, with a topical study of specific elements including Native Americans, Michigan’s role in the evolution of American history, the growth of cities in the region, and the economy of the state.

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HST 295  FIELD STUDIES IN HISTORY (W)  3(3-0-0)
History 295 will give students an opportunity to discover history outside the traditional classroom environment. Students will participate in field work involving visits to historic sites. The destination, schedule of events, student responsibilities, and number of credits will vary and will be announced prior to class registration. Course fees will reflect trip expenses.
PREREQUISITE(S): Permission of the instructor.

HST 297  SPECIAL TOPICS IN HISTORY  3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

HST 299  INDEPENDENT STUDY  3(3-0-0)
A course offering students the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements for a project under the supervision of a professor of their choice in the discipline the project will cover.

(HTM) Hospitality Management

HTM 121  INTRODUCTION TO HOSPITALITY INDUSTRY  3(3-0-0)
An overview of the hospitality industry including the operation and trends in restaurant/food service management, lodging management and travel/tourism. Introduction to destinations and the following components of travel/tourism: modes of travel, tour management, associations, agencies, marketing and sales, career preparation and opportunities and travel publications.

HTM 130  FOOD AND BEVERAGE MANAGEMENT  3(3-0-0)
An introduction to food, beverage and labor cost controls for students preparing for careers in food and beverage management, as well as in hotels and other hospitality industry enterprises.
PREREQUISITE(S): HTM 121

HTM 140  INTRODUCTION TO GAMING MANAGEMENT  3(3-0-0)
An introduction to the field of Gaming and Entertainment Management and Hospitality Services. This course is designed for introductory students with a career interest in these fields. Course topics include a survey of the gaming business in the world, with emphasis upon the U.S. gaming industry, as well as the relationships between gaming and the other hospitality segments. Practical application of the material is emphasized.

HTM 232  HOSPITALITY LAW & ETHICS  3(3-0-0)
Covers basic legal principles governing hospitality operations such as the hotel- guest relationship, the hotel’s duties to the guest and others, and laws relating to general hotel operation. The immigration reform law is discussed as an integral part of the course. Emphasis will be placed on current legislative and lobbying activities as well as to societal leverage in influencing and initiating legal and political activity and policy. The emerging dynamics of ethics will be discussed in relation to the entire industry.

HTM 240  CASINO OPERATIONS AND MANAGEMENT I  3(3-0-0)
An intermediate course in gaming management, with a strong emphasis on the day to day operations of an ongoing casino. This course is intended for those students with previous course work and experience in gaming management and operations. Topics include customer service and retention, cash management, security, gaming probability, staffing and taxation. Practical application is emphasized as are real world examples from operating casinos.
PREREQUISITE(S): HTM 140

HTM 245  CASINO OPERATIONS AND MANAGEMENT II  3(3-0-0)
Provides instruction in gaming management, with a strong emphasis on the day-to-day operations of an ongoing casino. Intended for those students with previous course work and experience in gaming management and operations. Analysis of patterns of managerial and supervision participation in various forms of gambling.
PREREQUISITE(S): HTM 240

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HTM 250  CASINO RISK MANAGEMENT  3(3-0-0)
Introduces students to the identification and analysis of all forms of risk in the casino world today. Includes an in-depth examination of the various methods used to protect table games. Provides a review of blackjack, baccarat, poker, craps, roulette, and slots and examines possible ways that cheating can occur. Methods of detection and various internal controls used by the casino will be discussed.
PREREQUISITE(S): HTM 140

HTM 285  WORK BASED LEARNING - HOSPITALITY  (F,W,S)  2(0-0-8)
Students are placed in a business or industry setting that is directly related to their chosen career. Students will participate in the work environment at a preliminary level, which will depend on individual student ability and knowledge. Students are not responsible for goals of the organization. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience. Prerequisites are determined by the curriculum in which the student is enrolled. See WBL Coordinator for a complete list. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.
PREREQUISITE(S): Based on student’s curriculum; see WBL Coordinator for a complete list

(IT) Information Technologies

IT 101  NETWORK+  (F,W)  3(3-0-0)
Introduction to Networking through a combination of demonstrations, lectures, and hands-on labs. Prepares you to take the Network+ certification exam administered by the Computing Technology Industry Association (CompTIA). Explores some common networking technologies and introduces underlying concepts of data networking, such as the Open Systems Interconnection (OSI) reference model and the protocols that operate at the various model layers.

IT 102  NETWORKING ESSENTIALS  (F,W)  2(2-0-0)
Introduces TCP/IP in static and dynamic networks. Using binary, hexadecimal and decimal representations of Internet addresses, you will divide networks into a variety of smaller subnets. Introduces the Open Systems Interconnect model and small office network components and terminology.

IT 112  MICROSOFT WINDOWS WORKSTATIONS  (F,W)  2(2-0-0)
Introduces you to the most current version of Microsoft Windows Workstation through exploration, demonstrations, discussions, and hands-on lab exercises. You will install, administer and troubleshoot the operating system in a variety of network configurations. You will use centralized server-based systems to manage Windows components. This course helps prepare you for one of the Microsoft Certified Professional examinations.

IT 122  MICROSOFT WINDOWS SERVERS  (F,W)  2(2-0-0)
Introduces Microsoft Windows Server operating systems through exploration, demonstrations, discussions, and hands-on lab exercises. You will troubleshoot problems with the operating system in a variety of network configurations. Using Active Directory Services, you will configure backups, Split Brain DNS, DHCP, and Windows Domains. This course helps prepare you for one of the Microsoft Certified Professional examinations.
PREREQUISITE(S): IT 102 or instructor permission

IT 130  MICROSOFT WINDOWS 2000 NETWORK INFRASTRUCTURE  (F,W)  2.5(2.5-0-0)
Using multiple subnets you will configure and manage TCP/IP, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP) and Active Directory. You will configure, manage, secure, and troubleshoot routing protocols in static and dynamic environments incorporating secure access to and from the Internet. This course helps prepare you for one of the Microsoft Certified Systems Engineer examinations.
PREREQUISITE(S): IT 122 or instructor permission

IT 131  WINDOWS WEB SERVER  (F,W)  1.5(1.5-0-0)
Introduces you to installation, configuration, and management of Microsoft Windows Web services. Using Internet Information Services (IIS) on a Windows Web server behind a firewall you will configure and manage a W3C...
Standards based website. Focus will be on standards and security. This course helps prepare you for one of the Microsoft Certified Professional examinations.

PREREQUISITE(S): IT 102 or instructor permission

**IT 141 MANAGING WINDOWS NETWORKS** (F,W) 4(4-0-0)
Implementing, managing, and troubleshooting existing Microsoft Windows networks. Focus will be on the skills generally required in medium to large size organizations spanning 2 to 100 physical locations via Large Area Networks (LANs) and the Internet or Intranets. Additionally, this course will help prepare you for the Microsoft Certified Systems Administrator (MCSA) Certification Examination.

PREREQUISITE(S): IT 102 or instructor permission

**IT 150 WINDOWS 2000 DIRECTORY SERVICES** (F,W) 2.5 (2.5-0-0)
Introduces Microsoft Window’s Active Directory system. You will plan, configure, and administer an Active Directory Domain Infrastructure. You will configure the Domain Name System (DNS), manage name resolution, schema, and replication. Using Active Directory Services, you will manage users, groups, shared folders, and network resources to administer the Domain’s resources with group policies. This course helps prepare you for one of the Microsoft Certified Systems Engineer examinations.

PREREQUISITE(S): IT 130 or instructor permission

**IT 160 ADVANCED HARDWARE AND ROUTING** (F,W) 3(3-0-0)
Through Hands-On Labs you will learn to perform router and switch configurations on a LAN and WAN network. Additionally you will learn basic configuration procedures to build a multi router, multigroup Internet- work that uses LAN and WAN interfaces for the most commonly used routing and routed protocols. This course will help prepare you for the Cisco CCNA Certification Examination.

PREREQUISITE(S): IT 102 and CIS 125 or permission of the instructor

**IT 161 INTRODUCTORY DIGITAL LOGIC** (F,W) 2(2-0-0)
Introduction to the logic functions necessary for operations in a TCP/IP environment. Through a series of hands-on exercises you will develop an understanding of the logical and physical activities necessary for network communications.

PREREQUISITE(S): IT 102

**IT 221 DESIGNING WINDOWS NETWORKS** (F,W) 6(6-0-0)
Designing infrastructure, directory services, and security for a Microsoft Windows network. You will learn how to analyze current business environments and create secure solutions for multiple site networks. To demonstrate your ability you will implement the pilot portion of your design in the lab. This course will help prepare you for the Microsoft Certified Systems Engineering Design examinations.

PREREQUISITE(S): IT 150

**IT 270 CAPSTONE PROJECT** (F,W) 3(3-0-0)
In this capstone course you will design and implement a network that integrates the Internet with a private network, internal and external websites, email, routers and virtual private networking capabilities.

PREREQUISITE(S): Permission of the instructor

**IT 271 CERTIFICATION PREPARATION, MICROSOFT** 2(2-0-0)
Students desiring certification in any level of the Microsoft Certification Program will use lab equipment to implement practice test certification scenarios. Using a combination of hands on lab exercises and practice exam scenarios, learners will prepare themselves for certification examinations. The first examination attempt will be paid for by class fees.

PREREQUISITE(S): Instructor Permission

**IT 272 CERTIFICATION PREPARATION, CISCO** 3(3-0-0)
Students desiring certification in the Cisco Certification Program will use lab equipment to implement practice test certification scenarios. Using a combination of hands on lab exercises and practice exam scenarios, learners will prepare themselves for certification examinations. The first examination attempt will be paid for by class fees.
PREREQUISITE(S): Instructor Permission

**IT 280**   **INTERNSHIP/PROJECT**  (F,W)  **3(3-0-0)**
In this capstone course you will develop an information system from its investigation phase through analysis, design, implementation, installation and review phases.
PREREQUISITE(S): You must complete all IT program requirements with at least a 2.75 G.P.A. and arrange scheduling of this course with the IT advisor and the Work Based Learning Coordinator at least one semester prior to enrollment. Students will not be placed with their current employer.

**IT 297**   **SPECIAL TOPICS IN INFORMATION TECHNOLOGY**  **3(3-0-0)**
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.
PREREQUISITE(S): Permission of the instructor

**IT 299**   **IT INDEPENDENT STUDY**  **2(2-0-0)**
This capstone course offers you the opportunity to conduct in-depth studies in your fields of interest. You will make arrangements for a project under the supervision of an instructor of your choice in the discipline the project will cover.
PREREQUISITE(S): Permission of the instructor

(JRN) **Journalism**

**JRN 102**   **NEWS WRITING**  (F,W)  **3(3-0-0)**
Teaches the beginning multi-media journalist how to become a practicing journalist or writer. The course will introduce students to the multimedia news writing process and concentrate on the development of writing techniques for print, broadcast and online in a writing lab environment. Contemporary issues, on and off campus, will be investigated and ideas influencing public affairs reporting will be analyzed.

**JRN 201**   **NEWS WRITING II**  **3(3-0-0)**
Second of two courses in news, designed to offer the beginning journalist or writer a practical training for entry-level jobs in the mass media or related fields such as public relations, government information and corporate communications. Course offers advanced writing experiences in feature, enterprise, opinion (editorial and column) reviews, on-line, broadcasting and public relations through classroom, writing lab and field work. No prerequisite required but basic news writing recommended prior to enrolling in JRN 201.

**JRN 220**   **NEWSPAPER PRODUCTION**  **3(3-0-0)**
A hands-on course in producing North Central Michigan College’s student paper, The Informer. Emphasis is on interviewing, reporting, editing, layout and page design. This class will create and produce the Informer. No prerequisite is required, but successful completion of high school or college level journalism or writing courses is recommended.

**JRN 295**   **FIELD STUDY IN JOURNALISM**  **1-5(1-5-0)**
Offers students opportunities to explore topics and activities in journalism outside the traditional classroom/lab setting. Description of specific activities, locations, credit values, and student responsibilities will vary and be announced prior to class registration. Course fees will reflect trip expenses. Prerequisite: Permission of the instructor.
PREREQUISITE(S): Permission of the instructor

(LA) **Legal Assistant**

**LA 200**   **LAW OFFICE MANAGEMENT & LEGAL ETHICS**  (F,W)  **3(3-0-0)**
Overview of legal assistant responsibilities, including the organization and management of a law office, timekeeping, public relations, and quality control. The code of Professional Responsibility and its Michigan counterpart are studied as they apply to legal assistants.

**LA 201 RESEARCH WRITING & ANALYSIS I** (F) 3(3-0-0)
An introduction to the Law Library and its use in the Law Office. Students begin to conduct research through all media including the Internet. Students will be able to prepare legal memoranda on all issues researched. Students enrolled in LA 201 must have strong writing and grammar skills. Students must have completed the equivalent of two semesters of English Composition prior to enrolling in this course.

**LA 202 RESEARCH, WRITING & ANALYSIS II** (W) 3(3-0-0)
This course develops skills the student acquired in LA 201 by teaching the student how to analyze, summarize, analogize and apply case law, statutory provisions and other authorities to factual scenarios. This course is designed to teach the student how to draft convincing legal briefs.

**LA 203 LITIGATION PREPARATION & PROCEDURE** 3(3-0-0)
This course teaches students how to prepare for civil litigation, including the initial client interview, investigation, preparation of complaint, subpoenas, the discovery process, witness preparation, organization of file, etc. Students draft Interrogatories, Requests to Admit, and Request for Production of Documents, Notices of Taking Deposition, and various motions and responses to motions.

**LA 204 CIVIL PROCEDURE & RULES OF EVIDENCE** 3(3-0-0)
This course studies the Michigan Rules of Court and Rules of Evidence along with their federal counterparts.

**LA 205 REAL ESTATE LAW** 3(3-0-0)
This course introduces the student to real estate practice with emphasis on document preparation, statute of frauds, recording requirements, the Land Division Act, the Marketable Title Act, licenses, easements, encroachments and other various aspects of real estate law.

**LA 206 PROBATE LAW** 3(3-0-0)
The student will be given an overview of probate law including document and form preparation, drafting wills, powers of attorney, patient advocate forms and trusts. The student will also learn the basics of probating an estate and the funding of trusts.

**LA 207 FAMILY LAW** 3(3-0-0)
The student will survey the general practice of family law as it applies to both circuit and probate courts. The student will be able to prepare divorce complaints, complete verified statements, draft personal protection orders, and other relevant documents.

**LA 208 TORT LAW** 3(3-0-0)
This course is an overview of Tort Law with special emphasis given to Michigan Law. Topics covered include Negligence, Malpractice, and Liability.

**LA 210 INTERNSHIP PARALEGAL** (F,W,S) 3(3-0-0)
This practicum shall be taken by the student during the last year of study. The student shall work as a legal assistant intern in a law related office that is preapproved by the Legal Assistant Program Coordinator, to obtain practical experience in the legal field. Students registering for LA 210 must also see Work Base Learning Coordinator for advising. Minimum 2.0 GPA required. Students will not be placed with their current employer.

**Marketing**

**M 200 INTRODUCTION TO MARKETING** (F,W,S) 3(3-0-0)
A course to familiarize you with the four weapons (the marketing mix) in the marketer’s arsenal: Product, Price, Promotion, and Place (Channels of Distribution), and help you learn how the product gets from the manufacturer to the ultimate consumer. The importance of strategic and tactical planning are covered in relation to the competitive,
economic, social/cultural, political/legal, technological, and ecological environments in our global economy. The principle elements of this course are critical to the proper allocation of a firm’s limited resources and survival.

M 202  FUNDAMENTALS OF ADVERTISING   (W)  3(3-0-0)
M 202 is an introductory course for those who plan to continue in the marketing sequence and those desiring a general knowledge of the field of advertising. This course provides a foundation for further study in advertising, gives an understanding of advertising as a business tool and as a socioeconomic force, and introduces you to the theory and techniques of marketing communication.

M 204  E-COMMERCE, RETAILING & SERVICE MANAGEMENT   (F)  3(3-0-0)
Find out what it takes to develop and maintain a successful relationship between producer and ultimate consumer in the Internet age. Major topics include e-commerce models, e-commerce and retail information systems, location and web presence issues, strategic and tactical planning, consumer behavior, consumer and market research, customer service, financing, merchandise management, pricing, internal and external communication, public policy and internet regulation, and media infrastructure.

M 205  PRINCIPLES OF SELLING: RELATIONSHIP AND LEADERSHIP EDGE   (F,W)  3(3-0-0)
Everyone sells every day...ideas, opinions, choices, plans and products or services. This course will be of special interest to you if your work requires leadership and the ability to influence others; you will become more effective, persuasive, and efficient by applying the principles of selling. Major topics include verbal and non-verbal communication, the psychology of buying, the consumer decision process, the selling process, and time management.

M 220  MARKETING & MANAGEMENT STRATEGY   (W)  3(3-0-0)
A case study-oriented application and expansion of the principles covered in Intro to Marketing (M 200) and Principles of Management (B 200). You will be involved with topics related to the management of the marketing function: strategic and tactical planning, execution scenarios, and decision making regarding product, price, promotion, and channels of distribution. Team projects and individual performance are the focus of this course.
PREREQUISITE(S): B 200 AND M 200 plus (9) additional hours of accounting, business, marketing, management, or economics

M 285  WORK BASED LEARNING- MARKETING   (F,W,S)  2(0-0-8)
Students in this course are placed in a business or industry setting that is directly related to their chosen career. Students will not be placed with their current employer. Students will participate in the work environment at a preliminary level, which will depend on individual student ability and knowledge. Students are not responsible for goals of the organization. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience. Prerequisites are determined by the curriculum in which the student is enrolled. See WBL coordinator for a complete list. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.

M 299  MARKETING, INDEPENDENT STUDY  3(3-0-0)
A course offering students the opportunity to conduct in-depth study and research in their specific field of interest. Students are responsible for making arrangements to do the project under the supervision of the professor of their choice in the discipline the project will cover.

(MTH) Mathematics

MTH 090  COLLEGE PREP MATH   (F,W,S)  3(3-0-0)
This course is designed to assist the student with little or no algebra background who plans to take Beginning Algebra (MTH 111). Topics covered will include whole numbers, decimals, percent, ratio and proportion, word problems, formulas, linear equations, and properties of exponents. Instruction will emphasize math study skills development. This course is offered on a Pass-Fail status and does not count toward graduation, nor will it transfer. PREREQUISITE(S): Placement according to Learning Support Services (ACT, Compass, e.g.).

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MTH 096  PRE-ALGEBRA AND BEGINNING ALGEBRA  (F,W,S)  1(1-0-0)
This course is designed to assist the student with little or no algebra background who is taking beginning algebra (MTH 106). Topics covered will include whole numbers, decimals, percent, ratio and proportion, word problems, formulas, linear equations, and properties of exponents. Instruction will emphasize math study skills development. This course is offered on a pass-fail status and does not count toward graduation, nor will it transfer. MTH 106 combined with MTH 096 is equivalent to MTH 111. A student must pass both courses to receive credit for MTH 106.
PREREQUISITE(S): Placement according to Learning Support Services (ACT, COMPASS, e.g.).
COREQUISITE(S): MTH 106

MTH 101  MATH FOR ELEMENTARY TEACHERS I  (F,W,S)  3(3-0-0)
A course designed for students majoring in elementary teaching. Topics include problem solving, sets, numeration systems, fractions, decimals, and the development of our number system from the set of natural numbers through the set of real numbers. Emphasis is placed on the use of physical representations (manipulatives) for teaching mathematics.
PREREQUISITE(S): MTH 111, Beginning Algebra, or COMPASS Algebra score of 46 or ACT mathematics score of 21 or higher
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

MTH 102  MATH FOR ELEMENTARY TEACHERS II  (W)  3(3-0-0)
Continuation of MTH 101. Decimals, ratio/proportion, geometry (concepts and measurement), probability, statistics, introduction to algebra.
PREREQUISITE(S): MTH 101
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

MTH 106  PRE-ALGEBRA AND BEGINNING ALGEBRA I  (F,S,W)  4(4-0-0)
A course in fundamental operations with real numbers; linear equations and inequalities, use of exponents; operations with polynomials; factoring; operations with rational expressions; dimensional analysis; and quadratic equations. A student may not receive credit for both MTH 106 and MTH 111. MTH 106 and MTH 096 combined are equivalent to MTH 111. A student must pass both courses to receive credit for MTH 106.
PREREQUISITE(S): COMPASS numerical skills score of at least 34.
COREQUISITE(S): MTH 096
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

MTH 111  BEGINNING ALGEBRA  4(4-0-0)
A course in fundamental operations with real numbers; linear equations and inequalities; use of exponents; operations with polynomials; factoring; operations with rational expressions; dimensional analysis; and quadratic equations.
PREREQUISITE(S): MTH 090, or COMPASS numerical skills score of 60 or higher, or ACT mathematics score of at least 18.
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

MTH 113  INTERMEDIATE ALGEBRA  (F,W,S)  4(4-0-0)
A review of properties of real numbers; first degree equations and inequalities; polynomials and exponents; rational expressions; rational exponents and radicals; linear equations and inequalities; quadratic equations and inequalities; systems of equations and inequalities; exponential and logarithmic functions.
PREREQUISITE(S): MTH 111, or COMPASS Algebra score of 46 or higher, or ACT mathematics score of at least 21
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

MTH 119  COLLEGE ALGEBRA  (F,W,S)  4(4-0-0)
A review of fundamental concepts of algebra; linear and quadratic equations and inequalities; functions and graphs; zeros of polynomial and rational functions; exponential and logarithmic functions; systems of equations and inequalities; matrices and determinants.
PREREQUISITE(S): MTH 113 or COMPASS Algebra score of 71 or higher, ACT mathematics score of at least 23.
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

MTH 122  ANALYTIC GEOMETRY & CALCULUS I  (F)  5(5-0-0)
An introduction to analytic geometry, limits, continuity, differentiation of algebraic and trigonometric functions, applications of derivatives, integration, and applications of definite integrals.
PREREQUISITE(S): MTH 119 and MTH 123 or COMPASS Trigonometry score of 46 or higher, ACT mathematics score of at least 28

MTH 123  TRIGONOMETRY & APPLICATIONS  (F,W)  4(4-0-0)
A review of functions; trig functions studied from both the right angle and unit circle concept; graphs of trig functions and their inverses; trig identities and equations; and applications of trigonometry. Also included are the study of vectors and their applications; polar coordinates and graphs of polar equations; conic sections including rotation of axes; and parametric equations and their applications.
PREREQUISITE(S): MTH 119 or COMPASS College Algebra score of 46 or higher, ACT mathematics score of at least 26.

MTH 211  ANALYTIC GEOMETRY & CALCULUS II  (W)  5(5-0-0)
A course in further applications of definite integrals, calculus involving transcendental functions, methods of integration, conic sections, hyperbolic functions, polar coordinates and infinite sequences and series.
PREREQUISITE(S): MTH 122, MTH 123

MTH 212  ANALYTIC GEOMETRY & CALCULUS III  4(4-0-0)
A study of power series, vectors, vector functions and motion, surfaces, differentiation of multi-variable functions and applications, multiple integration and their applications.
PREREQUISITE(S): MTH 211.

MTH 215  DIFFERENTIAL EQUATIONS  3(3-0-0)
A course in solving first and second order differential equations, with some attention to the nth order equation with constant coefficients. Emphasis is on equations that have greater application in the physical sciences and engineering.
PREREQUISITE(S): MTH 212.

MTH 297  SPECIAL TOPICS - MATHEMATICS  3(3-0-0)
Special Topics classes provide students opportunity for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

MTH 299  INDEPENDENT STUDY  1(1-0-0)
A course offering students the opportunity to conduct in-depth studies of selected mathematical topics. Students make arrangements for a project under supervision of the mathematics professor who approves the proposed content.

(MU) Music

MU 101  CHORALE I  (F,W)  1(1-0-0)
A large size vocal organization that performs a comprehensive selection of music styles in concert. Chorale may be repeated for up to four credits and is open by audition to any student in the College.

MU 102  CHORALE II  (F,W)  1(1-0-0)
A small size vocal organization that performs classical, semi-classical and religious music in concert. Chorale II may be repeated for up to four credits and is open by audition to any student in the College.

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MU 112          PRIVATE VOICE INSTRUCTION        (F,W)            1(.5-3-0)
A course providing private vocal lessons, with permission of each instructor, contingent upon approval by the Music Coordinator. Private voice instruction may be repeated for up to four credits.

MU 115          PRIVATE INSTRUMENTAL INSTRUCTION (F,W) 1(.5-3-0)
A course providing private lessons on an instrument of the student’s specialty with permission of each instructor, contingent upon approval by the Music Coordinator. Private instrumental instruction may be repeated for up to four credits.

MU 120          HISTORY OF MUSIC                 (F)                3(3-0-0)
An overview of musical styles, historical periods, and technical elements designed to expand a student’s musical intellect.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

MU 130          MUSIC THEORY I                  (W)            3(3-0-0)
A class of integrated fundamentals of basic musicianship. Training is given in aspects of all melodic and harmonic intervals and rhythms. MU 130 and MU 125 are identical courses, therefore credit will only be granted once for MU 130 or MU 125.

MU 131          MUSIC THEORY II                 3(3-0-0)
A continuation of Music Theory I
PREREQUISITE(S): MU 130 or MU 125

MU 141          CONTEMPORARY FINGER-STYLE GUITAR  2(2-0-0)
Introduces the student to the alternating bass finger-picking style (commonly called Travis Picking) guitar method. Contains a comprehensive study of the patterns and variations of the style, taking the student through several solo pieces. The course is great for both beginning fingerpickers and more advanced players who want to learn this style of finger-picking. It is recommended that students have a rudimentary knowledge of the guitar and know the basic chords in the major and minor scales.

MU 150          INTRODUCTION TO MUSIC COMPOSITION  3(3-0-0)
An introduction to history and techniques of composing music, in which students will discover and experiment with their musical ideas and creativity. The course investigates traditional compositional crafts, as well as more current or experimental tendencies, including pop, ethnic, and jazz idioms. A wide variety of musical styles will be considered in an effort to reveal the numerous ways in which composers present their musical ideas.

MU 297          SPECIAL TOPICS IN MUSIC           3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

(N) Nursing

NOTE: To register for any Nursing course (N 101 through N 290 listed below), a student must first be accepted into North Central’s Nursing AAS Degree program. Nursing courses are not open to students outside the degree program.

N 101          FUNDAMENTALS OF NURSING          (F)            7(7-0-0)
A basic course in nursing theory. Primary emphasis is on wellness, health maintenance, and the nurse’s role focusing on self-care activities of the adult client. The nursing process as applied to all areas of the individual’s universal requisite for health care is explored.
PREREQUISITE(S): Admission to the Nursing Program
COREQUISITE(S): N 102

N 102          FUNDAMENTALS OF NURSING CLINICAL   (F)            2(0-0-8)

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A course in the application of principles fundamental to nursing practice. Opportunity for practice in the College lab, with progression to care of adults in local agencies is provided.

**COREQUISITE(S):** N 101

**N 131  **  **INTRODUCTION NURSING CARE OF THE ADULT**  (W)  **2(2-0-0)**
An introductory level medical/surgical nursing course with a focus on common pathophysiologic changes in the adult client. Emphasis on theories of health and illness. The nursing process is used to illuminate nursing care with continued development of assessment, implementation and procedural skills.

**PREREQUISITE(S):** N101, N102, N 135, BIO 235, BIO 236

**COREQUISITE(S):** N 132

**N 132  **  **INTRODUCTION NURSING CARE OF THE ADULT CLINICAL**  (W)  **1(0-0-4)**
An application of theories and principles learned in N 131. Clinical experiences will focus on application of these theories in the care of clients needing increasingly complex care. Students will function under the guidance and supervision of nursing faculty in a variety of patient care settings.

**COREQUISITE(S):** N 131

**N 135  **  **FOUNDATIONS OF NURSING**  (F)  **2(2-0)**
This course covers the historical background and primary ethical and legal issues for the profession of nursing. The sociocultural context of behavior and the therapeutic nurse-patient relationship are explored, with an emphasis on communication techniques.

**PREREQUISITE(S):** Admission to the Nursing Program

**N 200  **  **NURSING TRANSITION-LPN**  **2(2-0-0)**
A course to assist LPN students in gaining the skills and knowledge necessary to perform successfully as registered nurses. The course focuses on the care of adult-medical surgical patients with common well-defined health problems. The nursing process is used to formulate nursing diagnoses.

**PREREQUISITE(S):** LPN accepted into the Nursing Program

**N 241  **  **NURSING CARE OF THE ADULT I**  (F)  **3(3-0-0)**
A continuation of medical-surgical nursing theories presenting nursing care of adult patients who have various pathophysiologic conditions. Students become knowledgeable in the effects of diseases and learn to identify problems related to pathophysiologic changes. The nursing process is used to guide development of interventions and strategies for nursing care.

**PREREQUISITE(S):** N131, N132, N255, N256, N265, N266

**COREQUISITE(S):** N 242, N 243

**N 242  **  **NURSING CARE OF THE ADULT I CLINICAL**  (F)  **2(0-0-6)**
An application of the principles taught in N 241 under the guidance and supervision of faculty. Selected clinical experiences focus on the care of patients with related pathophysiologic processes.

**COREQUISITE(S):** N 241, N243

**N 243  **  **NURSING CARE OF THE ADULT I RESEARCH**  (F)  **1(0-0-1)**
Students will use this time to review clinical assignments at the clinical sites. They will develop a plan for patient care activities and begin to work on nursing process papers and other clinical requirements.

**COREQUISITE(S):** N 241, N242

**N 251  **  **NURSING CARE OF THE ADULT II**  (W)  **7(7-0-0)**
A sequential senior level nursing course focusing on medical-surgical conditions that affect body systems and result in actual or potential self-care deficits. Pathophysiology of diseases, the effects, the limitations and treatment of these conditions on the adult are studied. The impact of health promotion on individuals and families will be examined. Nursing interventions based on these needs are discussed within the overall framework of the nursing process. The psychosocial, health education, rehabilitation, pharmacological, discharge planning and legal concepts of nursing interventions and cultural influences are integrated throughout. Theory related to contemporary and future issues in nursing will be covered. A leadership component presents key concepts of management theories as applied to patient care delivery.
PREREQUISITE(S): N241, N242, N243, N275, N276
COREQUISITE(S): N 252, N253

N 252  NURSING CARE OF THE ADULT II  CLINICAL  (W)  4(0-0-14)
A clinical nursing lab providing the opportunity to use previously learned principles and techniques in conjunction with concurrent theory in caring for patients with selected medical-surgical conditions. The development and refinement of skills in planning and providing individualized therapeutic nursing care to adults of various ages is emphasized. Clinical experience focuses on the care of patients with acute medical surgical conditions. A leadership rotation on a medical-surgical area allows students to delegate, organize and prioritize nursing care to a variety of adult patients.
COREQUISITE(S): N 251, N 253

N 253  NURSING CARE OF THE ADULT II  RESEARCH  (W)  1(0-0-2)
Students will use this time to review clinical assignments at the clinical sites. They will develop a plan for patient care activities and begin to work on nursing process papers and other clinical requirements.
COREQUISITE(S): N 251, N 252

N 255  FAMILY-CENTERED CARE OF CHILDREN  (W)  3(3-0-0)
Theory of illness and abnormalities common to children are presented and discussed. Emphasis is on basic information essential to delivery of safe, comprehensive and holistic nursing care to children and families. Some concepts of care common to both adults and children are covered.
PREREQUISITE(S): PSY 261, N131, N132
COREQUISITE(S): N256

N 256  FAMILY-CENTERED CARE OF CHILDREN  CLINICAL  (W)  1(0-0-4)
A clinical nursing application of theory and concepts focused on family centered care of children in the hospital and community settings. The nursing process is used to guide development of interventions and strategies for nursing care. Emphasis is on delivery of safe, comprehensive, and holistic care of children and their families in collaboration with members of the health care team and under the guidance of the clinical instructor.
COREQUISITE(S): N 255

N 265  WOMEN’S HEALTH CARE  (W)  3(3-0-0)
A course in the theory of normal and pathophysiological variations of women and newborns. Emphasis is on use of the nursing process in caring for antepartum, intrapartum, and postpartum families.
PREREQUISITE(S): N131, N132
COREQUISITE(S): N 266

N 266  WOMEN’S HEALTH CARE  CLINICAL  (W)  1(0-0-4)
An application of the theories and principles of caring for women and childbearing families in the hospital and community setting. Students practice under the guidance of a professor.
COREQUISITE(S): N 265

N 275  MENTAL HEALTH NURSING  (F)  3(3-0-0)
This course is designed to enable the student to develop a better understanding of his/her behavior as well as the behaviors of clients. Emphasis is placed on development of communications skills and establishing and maintaining a therapeutic relationship with clients. Mental health nursing focuses on both the individual and larger groups in society and incorporates a framework for implementation of the nursing process. Mental health nursing is not confined to a specialty group of clients. The concept of this course is applicable to all areas of nursing, whether in the community or the hospital. Mental health nursing concepts are concerned with a person’s response to stress, crisis and to the many factors that enhance or inhibit one’s ability to cope with stress.
PREREQUISITE(S): PSY 261, N265, N266, N255, N256
COREQUISITE(S): N 276

N 276  MENTAL HEALTH NURSING  CLINICAL  (F)  2(0-0-6)
Varied and guided clinical experiences in the hospital and community will be provided with emphasis on learning the use of self in a nurse-client relationship. All hospitalized persons, whether physically or mentally ill, have

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psychosocial needs as well as physical needs that must be met. Using the nursing process to provide meaningful nursing care involves assessment, planning intervention, and evaluation of progress or achievement of desired outcomes. Mental health nursing care involves persons in all stages of the life cycle, from varied cultures, and extends across the spectrum of human behavior and coping behaviors.

**COREQUISITE(S):** N 275

**N 290 NURSING PROCESS** (F) 1(1-0-0)

Designed to facilitate easy application of nursing process theory incorporating clinical situations. Students practice writing care plan entries using the National Classification of Nursing Diagnosis format. The relationship of each nursing process component to the total framework is emphasized.

**PREREQUISITE(S):** LPN admitted to Nursing Program.

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**(NISH) Anishnaabemowin**

**NISH 111 ELEMENTARY ANISHNAABEMOWIN I** (F,W) 4(4-0-0)

A systematic introduction to the fundamentals of grammar, structure and vocabulary. Classes are conducted in Anishnaabemowin with a minimum of English.

**NISH 112 ELEMENTARY ANISHNAABEMOWIN II** (F,W) 4(4-0-0)

This course as a continuation of NISH 111, with increased emphasis on conversational ability. Classes are conducted in Anishnaabemowin, with a minimum of English.

**PREREQUISITE(S):** NISH 111 or permission of the instructor.

**NISH 211 INTERMEDIATE ANISHNAABEMOWIN I** (F,W) 4(4-0-0)

This course enhances proficiency in Anishnaabemowin through a communicative, cultural, and literature based approach. There is continued emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of Odawa beyond the college setting.

**PREREQUISITE(S):** NISH 112

**NISH 212 INTERMEDIATE ANISHNAABEMOWIN II** (F,W) 4(4-0-0)

This course enhances proficiency in Anishnaabemowin through a communicative, cultural, and literature based approach. There is broadened emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of Odawa beyond the college setting.

**PREREQUISITE(S):** NISH 211

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**(OAS) Office Administrative Services**

**OAS 101 CUSTOMER SERVICE** (F,W) 1(1-0-0)

This course is designed to provide training in customer service skills required of employees in the business or office setting. Through the use of group discussion, activities and personal skills practice, students learn to communicate effectively with their customers in a variety of situations. Emphasis is placed on creating positive, memorable experiences for all customers. Participants learn skills in how to determine and respond appropriately to customer needs, recognize opportunities to exceed customer expectations, avoid creating negative customer interactions, and manage customer transactions toward positive, efficient conclusions.

**OAS 110 KEYBOARDING FUNDAMENTALS** (S) 1(1-0-0)

This eight-week course develops a basic touch keyboarding skills for processing information. Designed to give students in a minimum amount of time, the basic touch keyboarding skills needed to input information efficiently into the computer and on which to build skill in subsequent classes. An ideal start for those who have not successfully completed a high school typing course or equivalent or for those who want to build skill and confidence.

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NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
OAS 112  FUNDAMENTALS OF WORD PROCESSING  (S)  1(1-0-0)
Introductory course designed for the beginner or the student who wishes to update word processing skills. Learning will include: disk formatting, using Windows, storing information, using work processing software, creating and modifying text, editing, printing, proofing, using page layout tools.

OAS 116  MEDICAL TERMINOLOGY  (F,W)  3(3-0-0)
This course is designed to develop a basic understanding of the spelling, meaning and pronunciation of commonly used prefixes, suffixes, and root words, and their combining forms used in all fields of allied health professions.

OAS 117  MEDICAL TRANSCRIPTION  (W)  3(3-0-0)
A primer in medical transcription skills. Medical specialty reports including history and physical examination, discharge summary, consultations report, operation report, radiological report and correspondence are covered. Vocabulary and research of related medical data are also included, with emphasis on accuracy, editing skills, proofreading, charting skills and an introduction to formatting.
PREREQUISITE(S): OAS 116, OAS 122, OAS 224.

OAS 121  COMPUTER KEYBOARDING/SOFTWARE FUNDAMENTALS  (F,W)  3(3-0-0)
A beginning course in touch keyboarding and Windows software and the basic use of computers. Keyboard mastery and basic use of word processing and operating system software is the focus. Application is made to simple problems in basic formatting and document preparation. A course designed to establish keyboarding confidence and basic document preparation on the computer. Review and drill work is available for those students who have previously developed some typing skill.

OAS 122  DOCUMENT PROCESSING I  (F)  3(3-0-0)
Students learn to produce documents using word processing software. Student work to increase keyboarding speed and accuracy, and apply total quality management concepts to document production. Introductory computer concepts and skills are also mastered. Previous knowledge of Windows and Word Processing is helpful.
PREREQUISITE(S): OAS 121 or keyboard speed of 30 wpm and general word processing knowledge.

OAS 141  FILING AND RECORDS MANAGEMENT  (F,W)  2(2-0-0)
Introduction to the basic principles and procedures of records storage and control for manual and automated records systems using popular methods. Introduces database concepts needed for understanding automated record storage and retrieval methods including modifying, sorting, designing, searching, and printing. Practical application of filing is used to give students hands-on experience including alphabetic, numeric and subject storage methods.

OAS 190  EMPLOYABILITY SKILLS  (F,W)  1(1-0-0)
This course is designed for all majors. It is ideal as a capstone course at the close of the student’s course-work or helpful anytime an individual is ready to embark on a new job search. Topics presented include: company research, interviewing, and creating effective job search documents. Students develop practical skills to encompass techniques and strategies, ethical and legal considerations advocated in the workplace. The material is presented in a condensed time period to equal one credit.

OAS 216  MEDICAL INSURANCE BILLING  3(3-0-0)
Includes diagnostic and procedure coding; basic insurance concepts and terminology used by health insurance carriers; completion of claim forms for commercial insurance companies, Blue Cross-Blue Shield of Michigan, Medicare and Medicaid.

OAS 217  MEDICAL TRANSCRIPTION II  3(3-0-0)
This course expands the transcription skills by the use of dictation in specialty areas of medicine including dictation by professionals who speak English as their second language. Because the course materials to be transcribed are dictated by physicians and/or medical practitioners in realistic settings, the students become accustomed to transcribing dictation that is very similar to that encountered on the job. Students further develop skills in efficient usage of reference materials and medical terminology. Critical thinking.decision making and in-depth proofreading/editing activities are stressed.
PREREQUISITE(S): OAS 116, OAS 117, OAS 122, and OAS 224.

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11 revised 11-24-2010
OAS 220  BEGINNING MEDICAL CODING  (F,W,S)  2(2-0-0)
Prepares students for entry level jobs in a doctor’s office or other medical facility. Includes ICD-9-CM Coding, CPT Coding, Medicare Fraud & Abuse, and Evaluation & Management. You will need access to an ICD-9-CM and CPT manual for this course, in conjunction with a course CD.

OAS 221  BEGINNING MEDICAL BILLING  (F,W,S)  2(2-0-0)
Prepares students for entry level jobs in accounting skills necessary in a doctor’s office or other medical facility. This course includes Front Office Management, Filing Part B HCFA 1500, Filing Part A HCFA 1450, All About Medicare, Medicare Billing Problems, Patient Record Keeping using Medisoft, Medicare as Secondary Payer, Medicare & Home Health, Medicare and Women’s Health. Also included is a 1000 page 28 chapter Advanced Claims Processing Manual with everything you ever wanted to know about starting your own medical billing business from home.

OAS 223  DOCUMENT PROCESSING II  (W)  3(3-0-0)
This course develops speed and accuracy in producing business and personal documents such as letters, manuscripts, outlines, tables, forms and templates, publications, meeting reports, and repetitive correspondence. The student concentrates on technique improvement, language arts, and proofreading for perfect copy, decision making and total quality management in using the computer to process documents.
PREREQUISITE(S): OAS 122 with a C (2.0) grade minimum or permission of the instructor

OAS 224  TRANSCRIPTION/EDITING  (F)  4(4-0-0)
Instruction in the use of machine dictation and transcription equipment. Specially prepared practice tapes are used for initial learning, with the focus on developing speed and accuracy in transcription. Reinforcement of communication skills including grammar, spelling and vocabulary are also emphasized.
PREREQUISITE(S): Typing and knowledge of word processing.

OAS 230  ADVANCED MEDICAL CODING ICD-9-CM  (F,W,S)  2(2-0-0)
The official coding guidelines concerning the most common yet complex diagnosis coding issues are summarized in this course, which is organized by major body system chapter, as found in ICD-9-CM manual. Each chapter is organized by (1) Issues (2) Coding clarification (3) Physician Documentation Issues, and (4) Coding Scenarios. Real life coding problems illustrating the issues are presented with ICD-9-CM solutions.
PREREQUISITE(S): OAS 220 or OAS 216

OAS 231  ADVANCED MEDICAL CODING CPT  (F,W,S)  2(2-0-0)
An in-depth examination of coding as it is covered in the CPT book. Frequently asked questions from real life situations are answered in an authoritative manner. The main emphasis is on Evaluation and Management and Surgery codes. A five step outline is used to help you code the exercises/scenarios in the problems. Detailed medical history reports, including post operative reports, are provided from which CPT codes are determined.
PREREQUISITE(S): OAS 220 or OAS 216

OAS 241  ADMINISTRATIVE PROCEDURES  (W)  3(3-0-0)
A comprehensive study of the duties of administrative assistants, with special emphasis on human relations, organization, job task analysis and communications. Current topics such as business etiquette, prioritizing, ethics, software and equipment choice and team building will be discussed. Handling schedules, planning meetings, making travel arrangements, utilizing communication services and the Internet and multi-tasking are also explored.
PREREQUISITE(S): OAS 122 with 2.0 minimum grade

OAS 242  OFFICE TECHNOLOGY  (F)  3(3-0-0)
For students interested in new technology used in business and industry that facilitates basic office procedures. Topics may change with new developments, but generally include voice recognition systems, web language and design, OCR and scanning, interpreting and analyzing data using software, trouble-shooting the PC and using Anti-virus software. Students will further develop communication and scheduling skills using software, PDAs, and video/audio conferencing activities. An ideal course for students with sophomore standing.

OAS 252  MICROSOFT OFFICE FOR WINDOWS  (F,W,S)  3(3-0-0)

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11  revised 11-24-2010
A survey of the Windows operating system and popular office suite software using Microsoft Office for introductory word processing, spreadsheet presentation and database operations. The major components of this software package are the basis of information processing performed in the modern office.

**OAS 254**  **DESKTOP PUBLISHING FOR THE OFFICE**  
(F)  
2(1-1-0)  
A course designed to develop a fundamental knowledge of desktop publishing. Text and graphics will be combined to produce a variety of finished documents such as newsletters, proposals and customer brochures. The student will acquire a skill that is valuable in both small and large offices, in volunteer organizations, and in personal use.

**OAS 263**  **ADVANCED WORD PROCESSING**  
3(3-0-0)  
This course is designed to expand the student’s understanding of information processing through further study of principles, practices and systems. Emphasis will be placed on advanced operations and features of word processing including advanced line formatting, formatting with templates and macros, draw features, creating tables, indexes, charts, merging, sorting and selecting, integrating and creating fill-in forms. The skills acquired can be applied to advanced word processing features in any type of business office.  
PREREQUISITE(S): OAS 252

**OAS 285**  **WORK BASED LEARNING-OAS**  
(F,W,S)  
2(0-0-8)  
Students in this course are placed in a business or industry setting that is directly related to their chosen career. Students will participate in the work environment at a preliminary level, which will depend on individual student ability and knowledge. Students are not responsible for goals of the organization. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience. Prerequisites are determined by the curriculum in which the student is enrolled. See WBL Coordinator for a complete list. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.  
PREREQUISITE(S): Based on student’s curriculum.

**OAS 299**  **INDEPENDENT STUDY**  
1(1-0-0)  
A course offering students the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements for a project under the supervision of an instructor in the discipline.

**(PE) Physical Education**

**PE 111**  **INDIVIDUAL SPORTS-T’AI CHI CHUAN**  
1(0-2-0)  
T’ai chi chuan evolved in China over a period of 2000 years into the forms practiced today. Daily practice of T’ai Chi helps reduce stress and increase flexibility. We will study the Yang short form and focus on learning to center, fluidity of movement and breath.

**PE 112**  **BEGINNING YOGA**  
(F,W)  
1.5(0-3-0)  
Basic yoga instruction including breathing patterns, yoga warm-ups and postures, and relaxation techniques. The class combines different styles of classical yoga, with an emphasis on Kripalu Yoga. Over the last 2,000-3,000 years yoga has evolved as life science of physical, mental, emotional and spiritual health. Some yoga history and philosophy of yoga will be included.

**PE 114**  **YOGA II**  
1.5(0-3-0)  
Yoga II will review the basic postures and breath techniques learned in Beginning Yoga, PE 112, with a greater emphasis on various meditation styles and breath techniques, as well as new postures. Yoga philosophy and various styles of yoga will be explored (Anusara, Integral, Iyenga, Kripalu, Kundalini, Phoenix Rising Yoga Therapy). Yoga II provides a broader scope of this ancient Indian art of health and well-being.  
PREREQUISITE(S): PE 112 or equivalent

**PE 115**  **PERSONAL WELLNESS**  
(F,W,S)  
1(1-0-0)
This is a study of the components of physical health as they relate to each individual’s health. Topics include cardio respiratory endurance, muscular endurance, strength, flexibility, nutrition and general health principles. Students will identify the values of high level wellness, how to achieve it and maintain it through their individual lifestyles.

**PE 116 INTRO TO PHYSICAL CONDITIONING (F,W,S) 1(0-2-0)**
Introductory course for new students. Designed to improve total fitness via an aerobic-based conditioning program. Will include an individual fitness evaluation and prescribed program using various pieces of training equipment and activities to include a resistance circuit and additional recommended bodywork. Students must attend an orientation session before starting class. Following the scheduled orientation session, students will meet course requirements through an open schedule.
CALL 439-6370 TO SCHEDULE A MANDATORY ORIENTATION SESSION!

**PE 117 RESISTANCE TRAINING 1(0-2-0)**
Instruction in basic skills of muscular strength and endurance development, theories of strength training, equipment and safety in lifting. May be repeated.
PREREQUISITE(S): PE 116

**PE 132 CORE CONDITIONING (F,W) 1(0-2-0)**
Engages students in the conditioning of core muscles and enhance ability in any sport, and functional ability in any activity. Students use body weight, stability balls, floor, dumbbells, balance boards and rubber resistance in standing, sitting, squatting, walking, supine and prone positions.

**PE 135 PILATES (F,W,S) 1(0-2-0)**
Pilates emphasizes strength building by adding resistance to the movements that the body naturally makes. The exercises integrated within the Pilates movements aim at identifying and utilizing the core muscles of the body, stabilizing the pelvic and thoracic regions, creating a smooth and precise flow of movement, promoting the harmony of breathing, and engaging the mind. The exercises are gentle, yet effective, and undertake the whole-body approach towards fitness.

**PE 140 TEAM SPORTS 1(0-2-0)**
Selected team sports instruction and participation. Each offering will carry appropriate subtitle.

**PE 145 STREETWISE SELF-DEFENSE 2(0-2-0)**
The primary goal of this beginning self-defense class is to increase your mental and physical skills to reduce your potential for being a victim. Through mental preparation and simple defensive techniques you will learn how to defend yourself during any aggressive or life-threatening attack. These simple proven skills will work for you on the street, at work or at home without losing your mental focus during an attack.

**PE 216 PHYSICAL CONDITIONING II (F,W) 1(0-2-0)**
Continuation of PE 116 for returning students. Students will meet course requirements through an open schedule. May be repeated.
NOTE: PE 216 is for students who have already taken PE 116. New students should take PE 116.
PREREQUISITE(S): PE 116

**PE 297 SPECIAL TOPICS IN PHYSICAL EDUCATION 3(3-0-0)**
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

(Phl) Philosophy

**PHL 101 INTRODUCTION TO PHILOSOPHY (F,W) 3(3-0-0)**
An introduction to the thinkers, systems and problems of philosophy, along with an examination of the influences of these on the religion, politics, morality, art and literature of the time.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group A
PHL 102  INTRODUCTION TO LOGIC  (F,W)  3(3-0-0)
This introduction to logic is designed to help the student analyze the arguments found in everyday situations, as well as to sharpen analytic skills. Deductive and inductive techniques are discussed, along with common logical fallacies and strategies of argumentation.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

PHL 109  CONTEMPORARY MORAL ISSUES  (F,W)  3(3-0-0)
This course is designed to provide students with a general foundation in ethics as well as familiarity with specific contemporary moral issues. In accomplishing the course objectives, students will study methods of effective reasoning, reflect critically upon their own values and ethical standards, and apply their critical thinking skills to specific contemporary moral issues.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

PHL 150  DANGEROUS IDEAS  3(3-0-0)
Covers a variety of issues defined as ideas or concepts which either challenge contemporary thought and practice or contain inhibitions resulting from social custom or emotional aversion. These ideas will be examined in the context of law, psychology, moral philosophy, science, religion and politics.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

PHL 297  SPECIAL TOPICS IN PHILOSOPHY  3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

PHL 299  INDEPENDENT STUDY  2(2-0-0)
An opportunity for students to conduct in-depth studies in a topic of interest. Students make arrangements for a project under the supervision of a professor of their choice in the discipline that the project will cover.

(PHLB) Phlebotomy

PHLB 101  PHLEBOTOMY I  (F)  4(2-4-0)
Prepares students for the role of the phlebotomist and to be a member of the health care team. Infection, quality control and safety, specimen collection, techniques for venipuncture and dermal or capillary puncture, specimen transport and processing and legal, ethical and professional conduct will be presented.
PREREQUISITE(S): High school graduate, at least 18 years of age

PHLB 102  PHLEBOTOMY II  (W)  2(0-0-8)
Application of venipuncture and dermal puncture techniques in the clinical setting. This course is designed to enable the student to apply procedures learned in PHLB 101 to a clinical laboratory setting. While at the worksite (clinical laboratory), students will be under the supervision of a preceptor. The course includes lecture, a practical review of techniques, and worksite experience.
PREREQUISITE(S): Completion of PHLB 101 with a C or better

(PHO) Photography

PHO 100  BASIC PHOTOGRAPHY  (F,W)  3(3-0-0)
This is a basic photography course designed for students who want to create better photographic images. Students will learn the importance of natural light, the steps to effective composition, and the creative controls of their cameras. Students may use either film or digital cameras for this course.

PHO 120  DIGITAL PHOTOGRAPHY  (F,W)  3(3-0-0)
The course is an introduction to current digital imaging technology as relates to the production of photographic imagery. Using digital cameras, printers, and photo imaging software, students will learn how to capture, enhance, and print digital images. Prior computer experience is recommended.

PREREQUISITE(S): PHO 100 or Equivalent

**PHO 210  ADVANCED PHOTOGRAPHY**  
3(3-0-0)
An advanced photography course intended to hone the students’ technical skills. Development and growth in the artistic use of the medium is emphasized.

PREREQUISITE(S): PHO 100

**PHO 295  FIELD STUDIES IN PHOTOGRAPHY**  
3(3-0-0)
Offers students opportunities to explore topics and activities in photography outside the traditional classroom/lab setting. Descriptions of specific activities, locations, credit values, and student responsibilities will vary and be announced prior to class registration. Course fees will reflect trip expenses.

PREREQUISITE(S): Permission of the instructor

**PHY) Physics**

**PHY 101  CONCEPTS IN PHYSICS**  
(F,W) 4(3-2-0)
A qualitative study of select topics in physics including: mechanics, energy, electricity, optics and sound. Intended for non-science students requiring a survey of physics for general education requirements or those students pursuing certification in elementary education. Includes practical laboratory exercises.

PREREQUISITE(S): MTH 111 OR equivalent.  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**PHY 210  GENERAL PHYSICS I LECTURE\REVIEW\LAB**  
(F,S) 5(4-2-0)
The first semester of a one-year introduction, intended for students who require a trigonometry-based approach to physics. Topics include the principles and practical applications of mechanics (kinematics, dynamics, energy, momentum, simple harmonic motion), fluids, and thermal physics. This course includes laboratory work.

PREREQUISITE(S): MTH 113 OR equivalent.  
GENERAL EDUCATION DISTRIBUTION AREA: Natural Science Group B

**PHY 211  GENERAL PHYSICS II LECTURE\REVIEW\LAB**  
5(4-2-0)
A continuation of PHY 210. Topics include the principles and practical applications of wave motion, electricity, magnetism, light, optics, and modern physics. The course includes laboratory work.

PREREQUISITE(S): PHY 210 with a grade of C or better.

**PHY 230  PHYSICS FOR SCIENTISTS & ENGINEERS I**  
(F) 5(4-3-0)
An introduction to the principles and practical applications of Mechanics (including kinematics, dynamics, energy, momentum, simple harmonic motion, and fluids) and thermal physics using concepts from differential and integral calculus. Represents the first semester of a one-year sequence. This course is intended for students who require a calculus-based physics course in preparation for further study in the physical sciences beyond this sequence. The course includes laboratory work.

PREREQUISITE(S): MTH 122 or equivalent.

**PHY 231  PHYSICS SCIENTISTS & ENGINEERS II**  
(W) 5(4-3-0)
A continuation of PHY 230. Topics include the principles and practical applications of wave motion, electricity, magnetism, light, optics, and modern physics using concepts from differential and integral calculus. The course includes laboratory work.

PREREQUISITE(S): PHY 230 with a grade of C or better.

**PHY 297  SPECIAL TOPICS IN PHYSICS**  
3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their area of expertise.
(PLS) Political Science

PLS 141 INTRODUCTION TO AMERICAN GOVERNMENT  (F,W)  3(3-0-0)
A survey of political institutions emphasizing the forms and functions of America’s federal government. The rights and responsibilities of citizenship in the democratic process are studied. This course also explores the political process, describes its structure and illustrates its functions.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group A

PLS 200 INTERNATIONAL RELATIONS   3(3-0-0)
This course analyzes the actions of international organizations, multinational corporations and individual world leaders in regards to their impacts on foreign relations. The influences and connections found in historical, geographical and social structures are addressed as appropriate. This knowledge is then applied in a case study format to current international controversies.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

PLS 225 CITIZEN POLITICS AT LOCAL LEVEL  (S)  3(3-0-0)
An examination of participatory democracy at the local level of government, and the roles of interest groups in influencing public opinion, voting behavior and public policy. The laboratories for this course are the county, township, city and village: commissions, councils and boards. Interest group organizational models are operational processes are analyzed.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

PLS 235 THE AMERICAN PRESIDENCY   3(3-0-0)
Examines the office of the American Presidency, both in terms of its historical development and its current characteristics. The course examines the foundations of the office, the processes by which presidents get elected, how they manage the executive branch, and pursue their domestic and foreign agendas. The course will consider the President’s role in a complicated system of shared political power and intense public interest, focusing on interactions between the presidency and Congress, the courts, political parties, interest groups, the media, and the American public. It is recommended that students take PLS 141 prior to enrolling in this course.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

PLS 270 VIETNAM THEN AND NOW  3(3-0-0)
An examination of the U.S. involvement in the Vietnam War and the War’s implications for government policies today. The various aspects of the execution of the war effort and the impact of the peace movement in this country are studied. Particular attention is given to the implications of the war in relationship to the political decisions involving foreign relations and military operations in the 1960s through the 1990s. Comparisons are made based on the leadership styles of those who served in the arm forces with those who did not serve.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

PLS 295 FIELD STUDY IN POLITICAL SCIENCE  1-5(1-5-0)
Offers students opportunities to explore topics and activities in political science outside the traditional classroom/lab setting. Description of specific activities, locations, credit values, and student responsibilities will vary and be announced prior to class registration. Course fees will reflect trip expenses.
PREREQUISITE(S): Permission of the instructor

PLS 297 SPECIAL TOPICS IN POLITICAL SCIENCE   3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

PLS 299 INDEPENDENT STUDY  3(3-0-0)
A course offering students the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements for a project under the supervision of a professor of their choice in the discipline the project will cover.

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(PSY) Psychology

**PSY 161**  **INTRODUCTION TO PSYCHOLOGY**  *(F,W,S)*  3(3-0-0)
This course will introduce students to the scientific study of thought, behavior, and emotion in humans and animals. Emphasis will be placed on (but not limited to) the study of personality, learning, memory, intelligence, gender and sexuality, social interaction, group processes, motivation, emotion, and sociocultural factors in both a current and historical perspective. Basic concepts and principles of psychology will be examined with a comprehensive focus on research methodology and the biological basis of behavior.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group A

**PSY 210**  **HUMAN SEXUALITY**  *(F,W)*  3(3-0-0)
This course will provide information about major topics of human sexuality by exposing students to the latest in both physiological and psychosocial research through classroom lectures and discussions as well as group and independent projects. Emphasis will be placed on acquiring a better understanding of such areas as sexual anatomy and physiology, sexual orientations, sexual dysfunctions, sexually transmitted infections, gender roles, love and attraction, reproduction, atypical sexual thoughts and behaviors, therapy, and legal and ethical issues pertaining to human sexuality.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**PSY 230**  **MENTAL ILLNESS IN FILM**  3(3-0-0)
Focuses on the cinematic representation of mental illness, with major focus on the characteristics, development, dynamics and classification, maintenance, and treatment of psychopathology as depicted in a wide variety of mainstream and independent cinema.
PREREQUISITE(S): PSY 161

**PSY 235**  **THEORIES OF PERSONALITY**  3(3-0-0)
Explores the basic perspectives of personality, and how they relate to the student’s understanding of his or her life. Personality psychology is a scientific study that asks such questions as: 1) What are people’s traits? 2) What are people’s temperaments? 3) What are the implications of these in a person’s life? (questions are examined through systematic observations of how and why people behave the way they do). Course will focus on cognitive, cultural, biological, psychodynamic, and trait factors of human personality with practical applications for counseling, health professions, business, education, child care, and criminal justice fields.
PREREQUISITE(S): PSY 161
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**PSY 241**  **ABNORMAL PSYCHOLOGY**  *(F,W,S)*  3(3-0-0)
This course will focus on the nature and causes of psychological disorders, with major focus on the characteristics, development, dynamics and classification, maintenance, and treatment of abnormal behavior. Additional emphasis will be placed on various types of psychotherapies and theories of prevention, with an incorporation of current and historical research pertaining to the biological basis for abnormality.
PREREQUISITE(S): PSY 161
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**PSY 255**  **CHILD PSYCHOLOGY**  *(F,W,S)*  3(3-0-0)
A study of psychological development in children covering genetic, prenatal and postnatal influences; infancy, preschool and school age periods; relationships with adults, family and peers; and social, emotional and intellectual development. NOTE: This course satisfies the training requirements for the CDA Credential competency goal vl: To maintain a commitment to professionalism.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**PSY 261**  **DEVELOPMENTAL PSYCHOLOGY**  *(F,W,S)*  3(3-0-0)
This course will examine the physiological and psychosocial lifespan development of humans from conception to death through classroom discussion and lecture as well as individual student projects. Emphasis will be placed on the longitudinal examination of social, emotional, and cognitive development, with a focus on interpersonal...
relationships with parents, peers, and others. Other focus areas will include personality, gender roles, difficulties related to school and work, and the impact of nature and nurture across the lifespan.

PREREQUISITE(S): PSY 161

GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

PSY 290 SOCIAL PSYCHOLOGY 3(3-0-0)
This course will utilize an empirical approach to understanding how people think about, influence, and relate to one another in a social interaction context with primary focus on the individual. Emphasis will be placed on (but not limited to) the study of attitude formation and change, impression formation and management, group dynamics and processes, social interrelations and intrarelations, and sociocultural influence.

PREREQUISITE(S): PSY 161

GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

PSY 297 SPECIAL TOPICS PSYCHOLOGY 3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

PSY 299 INDEPENDENT STUDY 3(3-0-0)
A course offering students the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements for a project under the supervision of a professor of their choice in the discipline the project will cover.

(REC) Recreation

REC 110 INTRODUCTION TO OUTDOOR RECREATION (W) 3(1-4-0)
An introduction to the history and progression of outdoor recreation in the U.S. Students will develop an understanding of the roles played by federal, state and local governments, as well as the private sector, in providing outdoor recreation activities and programs. Students will experience a balance between theory and hands-on, practical experiences and will gain an understanding of employment options and professional opportunities in the growing market of outdoor recreation.

REC 120 INTRODUCTION TO OUTDOOR LEADERSHIP (F) 3 (1-4-0)
Provides students with the knowledge to organize and safely lead outdoor activities. This course combines theory and practical experiences to address the management and leadership aspects as well as the technical skills of outdoor leadership. Central course topics include safety and first aid, trip planning and debriefing, environmental impact, lesson plans and learning styles, expeditionary behavior, liability and career options. Technical skills introduced include ropes courses, sea kayaking, rock climbing and backpacking.

(REL) Religion

REL 100 WORLD RELIGIONS (F,W,S) 3(3-0-0)
An introduction to the nature of religion and various religions past and present, including Indigenous, Hinduism, Buddhism, Confucianism, Judaism, Christianity and Islam, Jainism, Sikhism, Shinto, Zoroastrianism, and Taoism.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

REL 102 HISTORY OF RELIGION IN THE U.S. (F,W) 3(3-0)
The story of religion in the United States from the early Puritans to modern pluralism. Emphasis is on the main contributions of religion to American culture; church and state relationships; major trends; contemporary issues; and the religious questions surfacing in modern American art and literature.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

REL 297 SPECIAL TOPICS IN RELIGION 3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

**REL 299 INDEPENDENT STUDY 3(3-0-0)**
Independent Study is designed for students who have surpassed the normal scope of course offerings in a given discipline.

**(RUS) Russian**

**RUS 111 ELEMENTARY RUSSIAN I 4(4-0-0)**
Gives an elementary level of understanding of the Russian language through a communicative and cultural approach. Students will transition from simple words to complete sentences. Emphases are placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar.

**RUS 112 ELEMENTARY RUSSIAN II 4(4-0-0)**
Gives a secondary level of Russian through a communicative and cultural approach. A continuation of Elementary Russian I. Emphasis is placed on listening and reading for comprehension, as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. This course broadens student expression of perspectives and appreciation of Russian culture.
PREREQUISITE(S): RUS 111

**(SD) Student Development**

**SD 101 COLLEGE STUDY METHODS (F,W,S) 3(3-0-0)**
Provides students with study skills applicable to any discipline. Topics include improving or developing memory, time scheduling, lecture notes, test strategies, health & wellness, career exploration, critical thinking, learning style awareness, project & paper development, and library skills.

**SD 107 PROFESSIONAL DEVELOPMENT SKILLS 1(1-0-0)**
Focuses on the following: understanding the requirements of the professional work environment; integrating both the personal and professional self; learning how to identify, analyze, and resolve specific ethical issues; learning how to understand various organizational codes and policies; the importance of quality, customer satisfaction, and social responsibility. This course will also increase students’ understanding of professional networking and interpersonal communication. It will also foster an approach that will teach students how to identify and prioritize developmental needs that will help them set specific developmental objectives to satisfy those needs.

**SD 120 READING FOR COLLEGE SUCCESS (F,W) 3(3-0-0)**
Provides instruction and practice in reading college-level textbooks and supplementary materials. Concepts studied include developing strategies for comprehending texts, becoming active readers and learners, and applying effective reading and studying techniques in common required classes from across the curriculum. This class should help students comprehend reading assignments, improve on tests, and complete individual programs.

**SD 125 STUDENT SUCCESS 3(3-0-0)**
Students will learn to identify and develop the beliefs, attitudes, behaviors, life and study skills that lead to academic, career and personal success. Through self assessment, readings, projects, classroom activities, and journal writing, students will learn to take charge of their lives, increase self-esteem and self-awareness, create a compelling college and life plan and learn to maximize their college experience.

**SD 135 LEADERSHIP AND SERVICE LEARNING I 1(1-0-0)**
Develops student leadership skills through the utilization of service learning. This is enhanced by linking academic coursework, group dynamics, and volunteerism to benefit both the student and the community.


**SOC 110**  
**INTRODUCTION TO WOMEN’S STUDIES**  
3(3-0-0)  
A multidisciplinary and multicultural introduction to Women’s Studies. This course examines the evolving role of women in society as well as the contemporary and historical status of women. Topics discussed include the sociocultural construction of gender and the influence of gender in various aspects of modern social institutions and everyday life. Emphasis is on American society, but a cross-cultural perspective is provided.  
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**SOC 115**  
**ANISHINAABEK CULTURE**  
1(1-0-0)  
An introduction to the Anishinaabek people. Topics covered will include the origin, culture, tradition and language of the Anishinaabek people. This course will also cover both historical and current issues of the tribe.

**SOC 120**  
**CONTEMPORARY SOCIAL PROBLEMS**  
(F,W)  
3(3-0-0)  
This course is an introduction to the sociological analysis of social problems and the application of this analysis to these specific problems. Global and national problems are discussed such as crime, poverty, race, ethnicity and gender inequality, the sex industry, substance abuse, healthcare, education, population and the environment. Particular emphasis is on the social problems within American society. An introductory course in sociology is recommended prior to taking SOC 120.  
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**SOC 171**  
**INTRODUCTION TO SOCIOLOGY**  
(F,W,S)  
3(3-0-0)  
This course is an introduction to the scientific study of society, examining modern Western societies in terms of social processes, organizations, institutions and problems. Topics covered include: the sociological perspective, socialization and culture, social networks, group dynamics, social deviance, social stratification, sex and gender inequality, race and age inequality and collective behavior.  
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group A

**SOC 208**  
**JUVENILE DELINQUENCY**  
3(3-0-0)  
This course analyzes juvenile delinquent behavior in relationship to the institutional framework of society. Emphasis is on the extent, causes and methods of treatment of juvenile delinquency in the United States. Topics discussed include juvenile crime, the causes and control of juvenile crime including statistics of crime, problems of juvenile offenders, problems of probation and paroles, and the work of youth agencies. An introductory course in Sociology is recommended prior to taking SOC 208.  
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**SOC 220**  
**DEATH AND DYING**  
(W)  
3(3-0-0)  
This course is an examination of the way in which ideas and values regarding death and dying are socially constructed and contextually grounded. The historical, socioeconomic, psychological, and political construction of death and dying within the United States is emphasized. A comparative aspect is also provided.  
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**SOC 230**  
**RACE AND ETHNICITY IN AMERICA**  
3(3-0-0)  
This course introduces the student to the status of racial and ethnic minorities in the United States with particular reference to the social dynamics involved with regard to majority-minority relations. Emphasis is on the culture, social organization and status, and the problems and opportunities of various ethnic groups. Topics covered include in- equality, segregation, pluralism, the nature and causes of prejudice and discrimination and the impact that such patterns have upon American life. An introductory course in Sociology is recommended prior to taking SOC 230.  
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

**SOC 250**  
**DEVIANT BEHAVIOR**  
(W)  
3(3-0-0)  
This course examines behavior and beliefs within American Culture that have been identified as deviant in our society. The historical development of attitudes toward such behaviors and beliefs is emphasized along with the casual theories of deviance. Topics covered include substance abuse, mental illness, sexual preference, prostitution, suicide and crime. An introductory course in Sociology is recommended prior to taking SOC 250.
GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

SOC 271  MARRIAGE AND THE FAMILY  (F)  3(3-0-0)
This course is a sociological analysis of marriage and the family as social institution. Family and marriage as institutions have been shaped by many aspects of society, as a social system within its own dynamics, and as a primary group affecting the lives of its members. Emphasis is on issues such as choosing a marriage partner, sexual adjustment, occupational involvement, conflict resolution, parenthood, divorce, and readjustment. An introductory course in Sociology is recommended prior to taking SOC 271.

GENERAL EDUCATION DISTRIBUTION AREA: Social Science Group B

SOC 297  SPECIAL TOPICS IN SOCIOLOGY  3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

SOC 299  INDEPENDENT STUDY SOCIOLOGY  3(3-0-0)
A course offering student the opportunity to conduct in-depth studies in their fields of interest. Students make arrangements to do the project under the supervision of the professor of their choice in the discipline the project will cover.

(SPAN) Spanish

SPAN 109  TRAVEL SPANISH  3(3-0-0)
Promotes Spanish language speaking; listening proficiency and cultural sensitivity within the context of various travel situations, such as: customs, airport, restaurant, hotel, store, market, and emergencies.

SPAN 111  ELEMENTARY SPANISH I  (F,W)  4(4-0-0)
This course enables students to begin acquiring proficiency in Spanish through a communicative and cultural approach. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. Language study and this course promote student expression of cross-cultural perspectives.

SPAN 112  ELEMENTARY SPANISH II  4(4-0-0)
This course enhances proficiency in Spanish and is a continuation of SPAN 111. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. This course broadens student expression of perspectives and appreciation of Spanish culture.
PREREQUISITE(S): SPAN 111 or one year high school Spanish or permission of the instructor

SPAN 211  INTERMEDIATE SPANISH I  4(4-0-0)
This course enhances proficiency in Spanish through a communicative, cultural, and literature based approach. There is continued emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of Spanish beyond the college setting.
PREREQUISITE(S): SPAN 112 or two years of high school Spanish or permission of the instructor

SPAN 212  INTERMEDIATE SPANISH II  4(4-0-0)
This course enhances proficiency in Spanish through a communicative, cultural and literature based approach. There is broadened emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of Spanish beyond the college setting.
PREREQUISITE(S): SPAN 211, three years of high school Spanish, or permission of the instructor

SPAN 297  SPECIAL TOPICS IN SPANISH  3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

SPAN 299  INDEPENDENT STUDY SPANISH  3(3-0-0)

NORTH CENTRAL MICHIGAN COLLEGE CATALOG 2010-11  revised 11-24-2010
A course offering students the opportunity to conduct in-depth studies in their field of interest. Students make arrangements for a project under the supervision of an instructor in the discipline.

(STAT) Statistics

STAT 200 STATISTICS (F,W,S) 3(3-0-0)
A beginning course in statistics for students majoring in fields using measurements and predictions. Topics include organization of data, measures of central tendency and dispersion, probability, types of distributions (binomial, normal, ‘t’ and chi-square), sampling, testing hypotheses, point and interval estimations, regression and correlation.
PREREQUISITE(S): MTH 119
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

(TDT) Drafting Technologies

TDT 130 CAD I (F,W) 3(3-0-0)
A first course in the training and use of Computer Aided Drafting and Design software (CAD), focusing primarily on two-dimensional (2D) drawings. The latest version of Autodesk’s AutoCAD software is used in this class. You will generate a variety of drawing types and will gain experience with most AutoCAD features, including printing to a full size plotter.

TDT 132 CAD III (ADVANCED AUTOCAD) 3(3-0-0)
An advanced course in the training and use of Computer Aided Drafting and Design software (CAD). The primary focus will be on producing two-dimensional (2D) and three-dimensional (3D) drawings. The latest version of Autodesk’s AutoCAD software is used in this class. You will generate a variety of drawing types and will gain experience with most AutoCAD features, including printing to a full size plotter.
PREREQUISITE(S): TDT 130 or equivalent AutoCAD experience

TDT 140 ARCHITECTURAL CAD 3(3-0-0)
A further introduction to AutoCAD software, specializing in the Architectural Desktop module. The basic skills and knowledge acquired in TDT 130 (or equivalent) will be expanded to develop three dimensional (3D) and more specialized drawings. Drawings types may include residential and commercial buildings, industrial facilities and infrastructure work. Further experience in layout, design and printing will be gained. Advising Note: It is recommended that students have the abilities and knowledge of the topics covered in TDT 130 before enrolling in TDT 140.
PREREQUISITE(S): TDT 130 or AutoCAD experience

TDT 150 MECHANICAL CAD 3(3-0-0)
A further introduction to AutoCAD software, specializing in the Inventor module (formerly Mechanical Desktop). The basic skills and knowledge acquired in TDT 130 (or equivalent) will be expanded to develop three dimensional (3D) and more specialized drawings. Drawing types will include parts and components, assemblies, CNC work and residential and commercial infrastructure. Further experience in layout, design and printing will be gained. Advising Note: It is recommended that students have the abilities and knowledge of the topics covered in TDT 130 before enrolling in TDT 150.
PREREQUISITE(S): TDT 130 or AutoCAD experience

TDT 297 SPECIAL TOPICS IN TECHNOLOGY-DRAFTING 3(3-0-0)
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

(THF) Theatre and Film

THF 101 SURVEY OF THE THEATRE 3(3-0-0)
Survey and appreciation of the different areas of the theatre. Major topics include performance, terminology, acting, improvisation, directing, literature of the theatre, set design, as well as individual and group projects.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

**THF 102  ACTING I**  
3(3-0-0)  
An exploration and introduction to various acting techniques, theories of acting, script and role analysis, characterization, stage make-up, physical and vocal skills. Students engage in improvisation, pantomime, vocal and physical exercises, relaxation and concentration. Scenes from modern plays are performed in class for analysis and evaluation.

**THF 250  FILM AND LITERATURE**  
3(3-0-0)  
Introduces students to the similarities and differences between cinematic and literary forms by studying and evaluating the links between various genres of film and various literary texts, such as poetry, the theatre, fairy tales, screenplays, and the novel. Detailed examination of style, narrative, adaptation, techniques, and interpretation in the two art forms in relationship to each other will increase the understanding and appreciation of both.  
PREREQUISITE(S): ENG 111

**THF 275  CLASSIC CINEMA**  
3(3-0-0)  
Provides an overview of the techniques, aesthetics, vocabulary, and criticism of the cinema in a historical context. As an introduction to classic cinema, this course will establish a sense of both film history’s general outline and film theory’s most important issues in an active and useful fashion.  
PREREQUISITE(S): ENG 111

**THF 276  CONTEMPORARY FILM**  
3(3-0-0)  
A survey of American film from 1960 to the present. Students will view films of the period and discuss in class and in essays aspects of direction, theme, content, characterization, cinematography, and other issues associated with film.  
PREREQUISITE(S): ENG 111  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities Group B

**THF 280  THE DIRECTOR’S SERIES**  
3(3-0-0)  
An auteurist approach to the works of an individual director or a sampling of major directors, and will consider both the manner in which these directors’ personalities are thematically and stylistically expressed in their films, and how their films represent major developments or movements in film aesthetics and history.  
PREREQUISITE(S): ENG 111

**THF 297  SPECIAL TOPICS IN THEATRE & FILM**  
3(3-0-0)  
Special Topics courses provide opportunities for focused study with full-time or adjunct instructors teaching in their areas of expertise.
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