

# 12-13

*catalog*



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 North Central  
MICHIGAN COLLEGE  
*Your growth. Our mission.*



## Welcome to North Central!

Choosing to attend college is a decision that will change your life. No matter your age, background or personal circumstances, when you choose to attend college, you begin a journey that will change how you learn, earn and relate to the world around you.

This catalog is a guide you will need as a student at North Central. Knowing college requirements and your own educational goal can help you make the most of your time at the college.

- Use the table of contents to become familiar with the variety of topics covered in the catalog.
- Read carefully the sections containing programs of study, course descriptions, important information about financial aid, along with the policies and procedures you must follow as a North Central student.
- Keep this catalog as a reference throughout your attendance at North Central. Our website, [www.ncmich.edu](http://www.ncmich.edu) has the most current catalog and previous catalogs posted for your reference.

The faculty and staff are glad you are attending North Central. Together, we can help you set your educational goals and plan a course to achieve them.

Sincerely,

*Cameron Brunet-Koch*

Cameron Brunet-Koch, Ph.D.  
President

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## Academic Calendar

### **SUMMER 2012**

Summer Semester has various start dates within the 14-week period, May 14-August 17, 2012. Check schedule on the Portal for specific start dates.

#### **14-week semester**

Semester Begins	May 14, 2012
Registration Deadline	May 18, 2012, 5 p.m.
Semester Ends	August 17, 2012

#### **8-week semester**

Semester Begins	June 4, 2012
Registration Deadline	June 8, 2012 5 p.m.
Semester Ends	July 27, 2012

### **FALL 2012**

Semester Begins	September 4, 2012
Registration Deadline	September 10, 2012, 7 p.m.
Thanksgiving Break	November 22,-23, 2012
Semester Ends	December 21, 2012

### **WINTER 2013**

Registration Begins	November 14, 2012
Semester Begins	January 14, 2013
Semester Ends	May 10, 2013

The information contained in this catalog is subject to change. Go to [www.ncmich.edu](http://www.ncmich.edu) for the most current information on policies, programs, course offerings, fees and other content material in this document.

### **DISCLAIMER**

It is the responsibility of each student to be aware of and understand College regulations as published. North Central Michigan College reserves the right to make changes in its programs, policies, rules, regulations, procedures, fees and staffing through the appropriate processes. Every effort will be made to give as much advance notice as possible to affected parties.

North Central Michigan College reserves the right to modify or eliminate programs that are described in this catalog. In the event such an action is taken, students affected will be advised by the College of the options available to them to complete their degrees. Every reasonable effort will be made to permit students to complete these programs or similar programs.

The College reserves the right to limit enrollments and to change requirements for enrollment in both programs and courses as necessary. When enrollment limitations are imposed, every reasonable effort will be made to provide alternatives for students affected.

## **NOTICE OF NON-DISCRIMINATION POLICY**

North Central Michigan College follows an open door policy of admitting (a) high school graduates/GED (b) non-high school graduates 18 years or older (c) high school students under Michigan dual enrollment guidelines. It is the policy of North Central to ensure that all employees and students are aware of its commitment to both equal opportunity employment and equal opportunity and treatment of all persons. It is the policy of North Central to offer admissions, 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.

North Central complies with Executive Order 11246, Titles VI and VII of the Civil Rights Act of 1964, as amended, Title II of the Americans With Disabilities Act of 1990 (ADA), as amended, Title IX of the Educational Amendments of 1972, as amended, Section 503 and 504 of the Rehabilitation Act of 1973, as amended, The Age Discrimination Act of 1975, as amended and all implementing regulations, the Age Discrimination in Employment Act of 1967 and all State of Michigan statutes prohibiting discrimination.

Any person who believes that he/she has been discriminated against by North Central or any of its departments or personnel in violation of this policy should immediately file a Complaint with the Dean of Finance & Facilities and request a copy of the North Central Discrimination Grievance Procedures which provide for the prompt and equitable resolution of complaints alleging discrimination prohibited by federal, state and local statutes and ordinances. The Discrimination Grievance Procedures are also available on the North Central website: [www.ncmich.edu](http://www.ncmich.edu).

Questions concerning the North Central non-discrimination policy may be directed to the Dean of Finance & Facilities, 1515 Howard St., Petoskey, Michigan 49770; Telephone: 231-348-6603. Inquiries by disabled students regarding academic support services should be directed to Learning Support Services.

## North Central Michigan College – Guiding Principles

### **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.

### **Vision Statement**

North Central Michigan College is a dynamic organization committed to student learning, student success and community enrichment.

### **Our Core Values**

**Student Success and Student Learning:** Create an environment where people can learn and be successful; provide opportunities for people to acquire knowledge and new skills; create a culture that values assessment.

**Service:** Demonstrate a commitment to helping others on and off campus.

**Community:** Have a positive impact on students, their families and the community by building relationships among diverse people and organizations.

**Access:** Offer an affordable, open-door pathway to opportunity.

**Excellence:** Strive for the highest quality, utilize assessment results to measure and improve quality and be willing to change/do something new.

**Integrity:** Be honest, fair, respectful and responsible.

**Stewardship:** Effective management of facilities and systems while maintaining a balanced budget.

## Campus Locations and Contact Information

North Central's main campus is in Petoskey. North Central also has centers in Cheboygan, East Jordan and Gaylord. Once admitted to North Central, students may take classes at any or all of these locations. Each semester's Class Schedule (printed and on-line) will indicate where each class is taught.

Main Campus – Petoskey  
1515 Howard St.  
Petoskey, MI 49770  
231-348-6600

The Cheboygan Center office is located in the counseling office of Cheboygan High School. Evening Classes are held at Cheboygan High School. Daytime classes are held in the Cheboygan Board of Education building, 504 Division St., and the Cheboygan Public Library, 100 South Bailey St.

Cheboygan Center  
801 West Lincoln Avenue  
Cheboygan, MI 49721  
231-597-0322

North Central Michigan College is a member of the University Center at Gaylord. Students can earn an associate's degree or take initial coursework toward a bachelor's degree or a master's degree with one of the participating University Center partners.

The Gaylord Center offers up-to-date technology with computer classrooms that provide access to a variety of multimedia applications.

Gaylord Center  
80 Livingston Blvd. (in the University Center complex off Old U.S. 27)  
Gaylord, MI 49735  
989-705-3775

The East Jordan Center offers a variety of courses. Scholarships may be available to East Jordan residents who attend this Center. Contact the Center office for more information.

East Jordan Center  
Lake Street Center  
115 South Lake Street  
East Jordan, MI 49727  
231-536-9702



## Quick Resource Guide

Petoskey Campus: 231-348-6600  
Cheboygan: 231-597-0322  
East Jordan: 231-536-9702  
Gaylord: 989-705-3775

### Academic Advising and Counseling

[http://www.ncmich.edu/advising/acad\\_advising.html](http://www.ncmich.edu/advising/acad_advising.html)  
Student Services 231-348-6605

### Academic Records

<http://www.ncmich.edu/registrar/registrar.html>  
Student Services 231-348-6626

### Add, Drop, Change or Withdraw From a Course

<http://www.ncmich.edu/pdfs/Web%20Registration%20Instructions.pdf>  
Student Services 231-348-6625

### Admission to the College

<http://www.ncmich.edu/started.php>  
Student Services 231-348-6626

### Books and Classroom Supplies

<http://collegestore.ncmich.edu/home.aspx>  
College Store 231-348-6606

### Business Office

Refund Checks/Student Account/Pay Bill  
<http://www.ncmich.edu/finaid/index.html>  
Account Specialist 231-348-6609

### Campus Tours

Student Services 231-348-6626

### Change of Address

[http://www.ncmich.edu/registrar/na\\_ad\\_change.html](http://www.ncmich.edu/registrar/na_ad_change.html)  
Student Services 231-348-6625

### Corporate and Community Education

<http://www.ncmich.edu/cce/>  
231-348-6705

### Financial Aid

<http://www.ncmich.edu/finaid/finaid.html>  
Financial Aid Advisor 231-348-6627

### Help Desk-Technology Problems

<https://caps.ncmich.edu/>  
Help Desk Technician 231-348-6617

### Instructional Contacts

Associate Dean of Health, Business and Technology  
Peter Olson, Ph.D. 231-348-6619

Associate Dean of Liberal Arts  
Samantha McLin 231-348-6604

Associate Dean of Nursing and Wellness  
Mary Miles 231-348-6658

### Learning Support Services

**Tutoring/Assessment Testing/Disability Services** <http://www.ncmich.edu/advising/>  
231-348-6682

### Library

<http://library.ncmich.edu/> 231-348-6615

### Program of Study Change

Student Services  
231-348-6625 or  
[www.ncmich.edu/registrar/form.php](http://www.ncmich.edu/registrar/form.php)

### Residence Hall

<http://www.ncmich.edu/housing.php>  
231-439-6349

### Student Clubs, Organizations, Activities

<http://www.ncmich.edu/studact.html>  
231-439-6349

### Student Identification Card

Go to Student Services-Petoskey Campus

### University and College partnerships

Coordinator of College and University Relations  
231-439-6546

### Veteran's Benefits

<http://www.ncmich.edu/finaid/vet.php>  
Financial Aid Advisor, VA Certifying Official:  
Melissa Colby 231-348-6627

## Get Ready to Earn a Degree or Certificate at North Central

The decision to pursue a degree or specialized certificate puts you on a path of self-discovery and potential future success. You are choosing to invest in your future. Below is a summary of policies, procedures and terms you will need to understand and follow to be successful.

### 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. All students must demonstrate the ability to benefit from the instructional programs offered by the College. Testing and/or prior college transcripts are used to determine ability to benefit. Assessment testing standards are based on federal financial aid guidelines for ability to benefit.

### Registration

Registration is completed through the North Central website. Students access the registration module through the College Portal. For complete registration information, including course schedules, log on to [www.ncmich.edu](http://www.ncmich.edu).

It is recommended that students keep a copy of all registration activity. A copy of the confirmation screen verifying added/dropped courses(s) or a dated printout of the student's schedule can serve as proof if discrepancies arise.

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.

### Mandatory Orientation and Advising

New students who plan to enroll in at least three credits at North Central are required to attend an orientation and advising session before registering for courses. Guest, personal interest, direct credit and dual-enrolled students

are exempt from the requirement. Transfer students may be exempt once they have shown proof of 15 credits with a C or better from an accredited institution. Those already holding a credential from a college or university may be exempt upon North Central's receipt of a transcript with the credential noted. The mandatory orientation and advising sessions are held both on and off campus. Students should call Student Services to register for a session.

### Working with an Advisor

The mission of the academic advising program is to assist students in the development of meaningful educational plans.

Academic advisors help students select classes, develop an academic plan and assist with adjustment to college life.

North Central students are encouraged to seek academic advice from faculty members, advisors and counselors. Students who place into developmental classes through assessment testing are required to meet with an advisor before registering for classes until they have completed foundational courses.

Students interested in a career program should also make an appointment to speak with the program coordinator. Names of coordinators are listed with each program of study in this catalog.

In addition to seeing an 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 remaining course work needed to attain their goals.

### Programs of Study

Students often change the direction of their career and educational plans. Students should update their Program of Study each time they make a change so that all college information is up to date. Go to [www.ncmich.edu/registrar/form.php](http://www.ncmich.edu/registrar/form.php).

### **Degree Completion 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 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 than for those for academic standing.

### **Semester**

Each semester is typically 16 weeks for fall and winter, eight weeks in the summer.

## **Steps to Becoming a North Central student**

(Admission and Registration)

**1. Portal sign-up:** Go to [www.ncmich.edu](http://www.ncmich.edu), click on Student and Community Portal. Complete sign-in and you will be directed to the Admissions Application.

**2. Apply for admission:** No cost. You will be notified of your status and next steps by mail.

**3. If you have attended other colleges/universities:** Request official transcripts from all colleges you have attended be sent to the North Central Records Office, 1515 Howard Street, Petoskey, MI 49770.

**4. Apply for financial aid:** Go to [www.ncmich.edu](http://www.ncmich.edu) under *Financial Aid*. Apply early: processing takes at least four weeks.

**5. Assessment (mandatory):** Standardized testing is used to place students into the English and mathematics courses. Request that your ACT scores be sent to North Central. The COMPASS test may be used as an alternative to the ACT examination. Allow sufficient time to prepare for and take the test. Testing is by appointment. Allow two hours to complete. There is no cost for the COMPASS, but there is a fee for retakes.

**6. SmarterMeasure (mandatory before registration):** Sign in to the Portal and select

SmarterMeasure tab. Complete the personal assessments. You will learn about your strengths and opportunities for growth.

**7. Mandatory Orientation and Advising Session:** You will learn expectations, processes, planning and course selection.

**8. Register and pay for classes:** Log in to the Student and Community Portal using your username and password. Choose *My North Central*, then *Online Registration*. Payment due dates are published on the web, on the paper class schedule each semester and on your bill. For payment options, go to [www.ncmich.edu](http://www.ncmich.edu), and click on Paying for College.

**9. Use your free College MyMail email account:** Your MyMail account will be the primary way you will receive correspondence from North Central. Your username is the same as your Portal username; your address would be "username@student.ncmich.edu"

**10. Purchase textbooks.** North Central's College Store is located in the Student and Community Resource Center. Check out our on-line store at <http://collegestore.ncmich.edu/home.aspx>

**Optional Steps:**

**Apply for Housing:** Check out our affordable, fun, and safe on-campus living. Get more information by clicking on *Campus Housing* on our homepage.

**Former North Central Michigan College students**

Former North Central students who are credential-seeking but have not previously taken English or mathematics courses or do not have assessment scores on record are required to take or furnish ACT or COMPASS scores before registering for classes. Former students need to re-apply after two years of non-attendance.

**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 Student Services at the College. Requirements are subject to change in accordance with state law.

**Direct Credit**

North Central and the Charlevoix-Emmet Intermediate School District have initiated a program that will allow qualified high school students in Emmet, Charlevoix and northern Antrim counties to take certain high school courses for credit at both the high school and college level. See your high school guidance counselor for details.

**Tour the Campus or Residence Hall:** Call 231-348-6605 to schedule a tour.

**Former High School Dual-Enrolled and Direct Credit 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 and direct credit students are required to furnish ACT scores or take the COMPASS assessment before registering for classes, take the SmarterMeasure assessment, and attend orientation.

**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. 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 Student Services.

**Personal Interest Students**

North Central values and encourages lifelong learning. Community members may enroll and earn credit in most academic courses. Courses can also be audited for no credit. Students who take courses for personal interest and do not plan to earn a degree, certificate or transfer are not eligible for financial aid. They are exempt from assessment unless an English or mathematics course is selected or a prerequisite is required.

## Transfer Students

Transfer steps:

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.
4. Attend Mandatory Orientation and Advising Session. **NOTE:** If you have earned at least 15 credit hours from a regionally accredited institution and have received a "C" or better grade in each course, you are exempt from attending a session. To be exempt, you must submit an official transcript to the Registrar at North Central for evaluation.

### 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.

### 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 16 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.

### 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, they 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](http://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 can be obtained from Student Services or the College 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.

3. 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. International students 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 use 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 non-immigrant visa categories are not eligible for in-district or in-state residency status for tuition purposes.

## Paying For College

### 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, go to

[www.ncmich.edu/finaid/calculator.html](http://www.ncmich.edu/finaid/calculator.html), see the printed course schedule or contact Student Services or the Business Office.

### 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, rental lease 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.

### 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 offers a deferred payment plan that provides a low-cost option for budgeting tuition costs and other education expenses. To learn more about and enroll in the plan on-line, go to [www.ncmich.edu/finaid/index.html](http://www.ncmich.edu/finaid/index.html). 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](http://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 Direct 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 of the semester. After that time, there will be no refund.
2. **Summer Session:** The refund schedule applies to the first Friday of the semester rather than the second Friday of the semester.
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:

- The waiver will be effective the first semester following the semester in which the resident reaches age 60.
- 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 and activity.

## Financial Aid

A college education is one of the most important investments a person can make for his or her professional success. 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](http://www.studentaid.ed.gov), and the College's website, [www.ncmich.edu](http://www.ncmich.edu), for information on basic eligibility requirements and federal aid programs.

### Selection of Recipients

The awarding of financial aid to students is based on eligibility, deadlines and maintenance of 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, 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**

	Emmet County resident	Resident of other Michigan counties
Tuition and Fees	\$2,326	\$3,586
Books and Supplies	\$1,300	\$1,300
Transportation	\$1,400	\$1,400
Personal	\$650	\$650
Room and Board	\$6,200	\$6,200
Total	\$11,876	\$13,136

\*Figures are based on 2011-12 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 (\$2,350) or double (\$1,675) 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.

The GED is offered through Michigan Works! Offices and the University Center at Gaylord. 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 Related to Financial Aid**

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](http://www.studentaid.ed.gov), the College website, [www.ncmich.edu](http://www.ncmich.edu) in the College catalog and the Student & Community Portal. 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 correspondence 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 Academic Policies 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, 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 fall, winter and summer semesters.

## Financial Aid Steps

**1. Portal Sign-up** (If you have not signed up already). Go to [www.ncmich.edu](http://www.ncmich.edu), click on Student and Community Portal. Complete sign-in and you will be directed to the Admissions Application.

**2. Apply for Admission** (If you have not done so already; see Enrollment and Admission section). No cost. You will be notified of your status and next steps by mail.

**3. Apply for a Federal PIN.** PIN is used to access and correct your information and your parents' information online. Parents need a PIN if their information is required for financial aid application. Go to [www.pin.ed.gov](http://www.pin.ed.gov) to request a PIN.

**4. Complete the Free Application for Federal Student Aid (FAFSA)** or complete the Renewal Application. Go to [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Use this college code For North Central Michigan College: 002299. Enter this number on your FAFSA so that North Central staff can access your FAFSA results electronically. If you are transferring mid-year or considering multiple colleges list all codes, with the code for the school you are most likely to attend listed first.

**5. Review Your FAFSA Information.** About one week after you submit your FAFSA, a Student Aid Report (SAR) will be sent to you via email by the Federal Processor. Review the information for accuracy and submit any changes requested online. If you do not provide an email address, correspondence will be by postal mail and will take longer.

### Important Tips:

- Inform the Financial Aid Office of changes in family or financial circumstances.
- Keep your demographic information current with Student Services and the Federal Processor.

**6. Respond immediately to requests for information.** You may be selected by the Federal Processor or the College for verification and be required to submit income documentation and a Verification Worksheet to the Financial Aid Office. Application processing stops until all documentation is received and the student file is complete.

**7. File Complete.** After your file is complete, a review and determination of eligibility will be made. Files are reviewed in the order they are received. Review time is a minimum of two weeks. All students are notified of their eligibility. Read the Financial Aid Award Guide and know the Satisfactory Academic Progress policy found elsewhere in this catalog and on the College web site under *Financial Aid*.

**North Central scholarships.** Go to [www.ncmich.edu](http://www.ncmich.edu) under Financial Aid, Scholarships, for a current list. Deadline date is May 15 each year. Awards are based on academic excellence and specific scholarship requirements.

**Other Scholarships.** Check out any clubs, organizations, and businesses with which you or your parents may be affiliated. Search through legitimate sources only such as [www.michigan.gov/mistudentaid](http://www.michigan.gov/mistudentaid). Scholarship searches should be free. Call the Financial Aid Office if you question the legitimacy of a provider.

### Helpful Links:

[www.studentaid.ed.gov](http://www.studentaid.ed.gov) U.S. Department of Education, FAFSA, Student Guide  
[www.students.gov](http://www.students.gov) Student Gateway to the Federal Government  
[www.michigan.gov/mistudentaid](http://www.michigan.gov/mistudentaid) Michigan Financial Aid information

## Financial Aid Satisfactory Academic Progress Policy

In addition to meeting individual financial aid program requirements, students 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:

All financial aid students must have a minimum 2.0 cumulative GPA to be eligible for financial aid for the following semester; AND

#### Minimum Completion Factor Requirement:

All financial aid students must successfully complete a minimum of 67% of all credit hours attempted, whether or not financial aid was received for those attempted credits. Successful credit hours completed include all transfer credits accepted and all grades recorded on the transcript of 4.0 through 1.0. When calculating the completion factor the following designations are considered attempted but not successfully completed: Incompletes (I), 0.0 grade (E), withdrawals (W), and repeated courses (R).

Note: Students cannot receive financial aid for audited (AU) classes and these credits are not included in attempted hours. AND

#### Maximum Time to Complete Degree (150% Rule):

All financial aid students cannot 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; and repeated courses.

Financial aid recipients who are not meeting the academic progress policy eligibility requirement will be notified of their status.

### Financial Aid Warning Status

Financial aid recipients who do not meet the eligibility requirements will be placed on a Warning Status semester of financial aid to move toward acceptable GPA and/or completion rates. The student will continue to receive financial aid during this semester. However, the College reserves the right to deny loans to students who are on Warning Status or are not making acceptable progress toward an educational goal. Students who fail to make satisfactory academic progress after the Warning period will become ineligible and have their financial aid withdrawn until they meet the standard.

### Reinstatement After Ineligibility

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. Courses taken for Pass/Fail may not be included. The student will be given aid on a Warning Status 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 Warning Status.

### Appeal Process and Financial Aid Probation Status

Financial Aid Probation Status is assigned to a student who fails to make satisfactory academic progress, is terminated, has appealed, and then has had eligibility for aid reinstated for one semester. Specific conditions (e.g. reduced course load) may apply to the student's probation period.

A termination appeal can only be considered if it is an extraordinary event that prevented the student from achieving satisfactory academic

progress. A student whose financial aid has been terminated may appeal in writing to the Director of Financial Aid. The written appeal must:

1. Explain any mitigating or extenuating circumstances.
2. Tell why the student failed to make satisfactory academic progress.
3. Describe what has changed in the student's situation that will allow the student to demonstrate satisfactory academic progress at the next evaluation.
4. Contain an academic plan, developed with an advisor.
5. 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, or b) Probation Status with reinstatement of the student's financial aid for one semester. The result of an appeal will be communicated to the student and recorded in the student's financial aid file. A student may file a satisfactory academic progress appeal only one time.

*Note: As of Fall 2012 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 \$555 to \$5,550 (based on 2011-12 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.

### **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.

### **North Central Michigan College Presidential Scholarship:**

A graduate from each public and private high school and one home-schooled student within North Central's service area is eligible to receive the Presidential Scholarship. North Central's service area encompasses Emmet, Charlevoix, Cheboygan, Otsego, Presque Isle, Antrim and Mackinac counties. 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. The application process for home-schooled students can be found here:

[http://www.ncmich.edu/pdfs/Presidential\\_Scholarship\\_home-schooled\\_students2010.pdf](http://www.ncmich.edu/pdfs/Presidential_Scholarship_home-schooled_students2010.pdf)

**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 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 apply for 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 a 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 or printing a deferment form from [www.studentaid.ed.gov](http://www.studentaid.ed.gov).

## 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](http://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 must be completed. Students should contact their tribal enrollment office.

### **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.miaeyc.org](http://www.miaeyc.org).

### **Human Services Coordinating Body of Charlevoix and Emmet Counties**

The Human Services Coordinating Body of Emmet and Charlevoix Counties is the state-endorsed Community Collaborative body for this two county area. The mission of the HSCB is to facilitate inter agency cooperation, coordination and collaboration for the improvement of human services.



## Assessment

Students who plan to take mathematics or English courses, are seeking a degree or certificate, or are taking courses to transfer to another institution must have assessment scores. COMPASS, ACT or SAT scores may be used to satisfy the College's assessment requirement. Students who have not taken the ACT or SAT will take the COMPASS assessment.

### Exemptions from Assessment Testing

The following qualify as exemptions from the assessment requirement with documentation

### COMPASS Testing

The COMPASS is a basic skills assessment that measures reading, writing, and mathematics levels. The assessment allows you and North Central to work together to help you succeed in your courses. Like any significant assessment test, preparation is important. Students should review the test preparation materials in Learning Support Services or online prior to taking the examination.

There is no passing or failing score; the test is used for placement purposes to determine the starting points for your educational career, which may include developmental courses. Key points about the assessment:

- COMPASS is user-friendly and designed for individuals with little or no computer experience;
- COMPASS is mostly untimed so you can work at your own pace;
- Allow about two hours to complete the assessment;

provided to Student Services. Students must meet prerequisites for all courses.

1. ACT/SAT or COMPASS scores
2. Guest student status
3. Satisfactory completion of college-level English and mathematics credits at a previous institution
5. Personal Interest student status and not enrolling in mathematics or English courses

### ACT

Information about the ACT can be found online at [www.actstudent.org](http://www.actstudent.org).

- Bring your Social Security number and photo ID;
- There is no cost for first-time takers. You can retake the COMPASS as many times as you wish, but each retake costs \$10 and there is a mandatory 24-hour waiting period;
- Results are printed out at the completion of the assessment and provide appropriate North Central course placement;
- COMPASS is offered by appointment in Learning Support Services, Room 533 of the Student and Community Resource Center in Petoskey, and at the College's Gaylord, Cheboygan, and East Jordan offices;
- For sample questions and more information, go to [www.act.org/compass/sample/index.html](http://www.act.org/compass/sample/index.html);
- Students may transfer COMPASS scores to and from other institutions for a fee;
- Ask questions if you don't understand the process for COMPASS. LSS staff members are available to help you. Call 231-348-6682.

## Mandatory Placement

Your placement in English and mathematics courses is based on a combination of your writing and reading and mathematics and reading scores. You must begin with the course in which you were placed. If you place into a developmental course, it is highly recommended that you take it in your first semester.

### English

Your COMPASS or ACT scores could place you into one of these courses:

- English 090 Writing Fundamentals, a developmental course that does not count toward graduation. It is pass/fail.
- English 095 College Prep Writing, a developmental course that does not count toward graduation. It is pass/fail.
- English 111, English Composition I.

## Technology at North Central

**Blackboard :** Blackboard 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 231-348-6617 or, toll-free, 866-900-6235. For more information, go to [www.ncmich.edu](http://www.ncmich.edu) and enter the Student and Community Portal.

**Internet Access:** All labs and classrooms on the Petoskey campus, in Gaylord and in Cheboygan have access to the Internet via high-speed connections. Access to the Internet is also available on computers located in the North Central Library, Learning Support Services, the Student and Community Resource Center concourse, and various computer labs across campus. Secure wireless access to the Internet is available in many areas on campus as well.

Use of the high-speed and wireless systems requires completion of the Student and Community Portal Access page. Go to [www.ncmich.edu](http://www.ncmich.edu) and click on the Student and

### Mathematics

Your COMPASS or ACT scores could place you into one of these courses:

- MATH 090 College Prep Math, a developmental course that does not count toward graduation. It is pass/fail.
- MATH 100 Mathematical Reasoning.
- MATH 110 Beginning and Intermediate Algebra (Part I).
- MATH 120 Intermediate Algebra.
- MATH 125 Mathematics for Elementary Education Teachers.
- MATH 130 College Algebra.
- MATH 140 Trigonometry.
- MATH 150 Analytic Geometry & Calculus I.

Community Portal. For assistance, call the technology helpdesk at 231-348-6617 or toll-free at 866-900-6235. 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.

**MyMail:** The College requires students to use a free email account, MyMail, to communicate with the College (pay tuition, receive notification concerning grants and conduct other official College business), communicate with instructors, communicate with fellow students, and use the College's learning management system, Blackboard.

**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.

## Course Delivery Methods

Instruction is delivered several ways at North Central to address student needs, learning styles and other factors. Traditional classroom instruction led by a professor remains the most prevalent form of delivery at North Central. For science classes, students may also work in laboratories under faculty supervision. Students in nursing and allied health areas will also have clinical experiences as part of certain courses.

### On-Line Courses

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.

**North Central students registering for North Central on-line courses:** The procedures for admission and enrollment are the same as for traditional courses. On-line courses are designated by "OL" in each semester's class schedule.

**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](http://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](http://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?

## 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. Counseling

### Lake Superior State University

B.S. Business Administration  
(minor options: Marketing, Public Relations, 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)

### Contact Information for University Center partners:

#### Central Michigan University

Judy Nemitz, Program Administrator  
NMC University Center  
2200 Dendrin Drive  
Suite 200 Q  
Traverse City, MI 49684  
231-995-1756  
231-995-1758 fax  
[nemit1jj@cmich.edu](mailto:nemit1jj@cmich.edu)

#### Ferris State University

Debbra A. Curtiss, Director  
Extended and International Operations  
2200 Dendrin Drive, Suite 100  
Traverse City, MI 49684  
231-995-1734  
866-857-1954  
231-995-1736 fax  
[FerrisNorth@ferris.edu](mailto:FerrisNorth@ferris.edu)  
[www.ferris.edu/statewide](http://www.ferris.edu/statewide)

#### Lake Superior State University

Joe Balinski, Director  
LSSU Petoskey Regional Center  
North Central Michigan College University  
Center  
Room 48  
1515 Howard St.  
Petoskey, MI 49770  
231-348-6623  
231-439-6513 fax

#### Lawrence Technological University

Jill Niemi, Coordinator  
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

### **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](http://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](mailto:slancast@arbor.edu)

### **Coordinator of College and University Relations at North Central**

Sarah Shuman  
1515 Howard Street  
Petoskey, MI 49770  
231-439-6546  
[sshuman@ncmich.edu](mailto:sshuman@ncmich.edu)

## **Services and Resources**

### **Academic Advising**

All full-time members of the faculty hold scheduled office hours to meet with students. Hours are posted on or near each faculty member's office door and may also be posted on Blackboard. Counselors and advisors are located in Student Services. Students interested in a Career Program should make an appointment to speak with a faculty advisor.

### **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**

Assessments are available to help students select appropriate college majors and career areas: the Strong Interest Inventory and its iStartStrong version, and the Myers-Briggs Type Indicator© (MBTI©). All are completed on-line

and each generally takes 30 minutes. The Strong and Myers-Briggs assessments involve a mandatory interpretation session with a counselor during regular business hours. The iStart Strong version of the Strong Interest Inventory is a web-based self-explanatory test that does not require counselor interpretation. A fee is charged for each assessment.

### **Health and Accident Insurance for Students**

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.

### **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 and evenings.

### **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 available. Services 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
- is economically disadvantaged, including foster children
- has limited English proficiency
- is preparing for a non-traditional career
- is a single parent (including single pregnant women)
- is a displaced homemaker
- has other barriers to educational achievement

Call 231-348-6817 for more information.

### **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 16 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.

### **CLEP Exam Procedures**

- CLEP testing is offered by appointment
- A two-hour block of time is required for processing. The CLEP test itself takes about 90 minutes.
- Photo identification is required.

- Total cost of the exam is \$92, which includes a \$15 North Central administration fee. (2011)
- A study guide is available at [www.collegeboard.com/clep](http://www.collegeboard.com/clep).
- A list of NCMC-accepted exams is available at [www.ncmich.edu/advising/clep.html](http://www.ncmich.edu/advising/clep.html).

For more information or to schedule an appointment, call 231-348-6693.

**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.*

### **Tutoring Services**

Free tutoring service is available to North Central students for any course offered at the College. If you have had trouble with a subject in the past or are having trouble keeping up with the pace of the assignments in the course you're taking, it's probably a good idea to work with a tutor for all or part of the semester.

### **How Does Tutoring Work?**

- Tutoring sessions usually last for about an hour, one day a week, for the duration of the semester.
- Tutors do not do your homework; they teach you how to do your homework. Bring your books, notes and a copy of your class syllabus to every tutoring session.
- Have specific questions ready to ask your tutor.
- Your tutor can help you learn study skills and how to set achievable goals.
- Consistent class attendance is required of students who receive tutoring. Tutors do not replace the instructor. If you miss a class, the tutor cannot "fill you in" on what was missed.

For more information about tutoring services, call 231-348-6693.

### **Test Proctoring**

Learning Support Services provides proctoring for make-up and alternate testing to North Central students at no charge and for a fee for students from other schools. Call 231-348-6693 for more information.

### **Library**

The Library offers students and guests a comfortable place for research and study. The Library provides traditional print resources including books, periodicals and newspapers, along with online access to more than 50,000 books, millions of articles from magazines and journals and a collection of 6,000 educational videos. Students may access these resources on library computers, or online from any location via the Internet.

The Library is a Federal Depository Library and provides access and assistance in locating government documents.

The Library provides instruction for students in the use of print materials and applying successful search techniques in online databases. Support is also available for Microsoft Office applications and other types of software available on library computers. The Library has study rooms available for student use.

Guests may sign up for the Portal in the Library to gain access to the College's computer network. For more information, go to [library.ncmich.edu](http://library.ncmich.edu).

### **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 is Northwest Michigan Works!, which offers career guidance and basic skill development for adult learners.

### **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.

### **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.

## Academic Policies

### 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 on-line registration process 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. Students must register to receive text alerts.

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](http://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.



## Grading System

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

Grade	Honor Points per Credit
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	0.67
E	0.00
P/F	Passing (Pass-Fail only) *

\* 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 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 second week; for summer semester it is the first 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](http://www.ncmich.edu).

### Grade Appeal Process – initiated by student

If a student believes that a final course grade received is incorrect or unfair, the student may follow this appeal process:

1. The student must notify the instructor in writing no later than 10 working days from the release of semester grades. Email submissions are also acceptable. The student and instructor should discuss all the factors that were instrumental in determining the grade. If the instructor is not available, the

student may meet with the appropriate Associate Dean. A written response to the appeal will be made within 10 working days.

2. If a student wishes to appeal the decision of the instructor, he/she may do so by submitting an appeal, in writing, to the appropriate Associate Dean within 10 working days after the instructor's decision. The Associate Dean will have 10 working days to consider and respond to the appeal. If the Associate Dean assigned the grade, the student's appeal will move from Step 1 to Step 3.
3. If a student wishes to take further action, he/she may appeal the previous decision, in writing, to the Dean of Instruction and Student Success. The appeal must be

delivered to the Dean within 10 working days of the previous decision. The Dean will consider the appeal and may request additional information from the student and/or the instructor. The Dean will have 10 working days to consider and respond to the appeal.

4. If the student wishes to take further action, a written appeal may be made to the President of the College within 10 working days of receiving the previous decision. The President will have 10 working days to consider and respond in writing to the appeal. The President's decision will be the final determination and the conclusion of the appeal process.

### **President's, Dean's, Scholars 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 student who has earned a letter grade in 6 or more but fewer than 12 college-level credit hours with a 3.5 or higher grade point average for that semester will be named to the Scholars List. Dean's, President's and Scholars Lists will be calculated at the end of the fall and winter semesters, five working days after the end of each semester. A notation of any of these awards will be posted on the student's transcript for each eligible 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.

## Sunset Clause

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 2012-13 academic year must meet the graduation requirements from a catalog effective no earlier than Fall 2006. If a student has not attended North Central for at least two years, a new catalog of entry is established upon re-enrollment.

## 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.

Students may only earn one of the following degrees: Associate of Arts (AA), Associate of Science (AS), Associate of General Studies (AGS).

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.

<b>Distinction</b>	<b>3.50 to 3.69</b>
<b>High Distinction</b>	<b>3.70 to 3.89</b>
<b>Highest Distinction</b>	<b>3.90 to 4.00</b>

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 (in the same program)**

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 at least one semester 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.

### **Earning Multiple Credentials (in different programs)**

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.

### **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 in charge of the records. This appeal will be heard by a person or committee appointed by the administrator of the office involved.

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, e-mail, 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.

## 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 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.

**Business:** 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.

**Financial Aid Warning/Advising:** A hold will be placed on a student's record if the student has been placed on financial aid warning status and the student is required to meet with an advisor or counselor prior to registering for classes.

**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.

## 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. The course 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.

## Student Rights and Responsibilities

### Drug Free School Policy

1. Any student, full-time or part-time, 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. Local law enforcement agencies will be notified if State underage drinking laws are violated.
4. All students are advised that conviction for 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, forfeitures of property, and imprisonment.

5. Students interested in seeking alcohol or substance abuse counseling should contact one of the following agencies/sources, or check their local telephone directory for other counseling services in their area.

North Country Community Mental Health Services 231-347-6701

Bay Area Substance Abuse Services (B.A.S.E.S.) 231-547-1144

Harbor Hall 231-347-5511

Northern Michigan Substance Abuse Services: 989-732-1791

Northern Michigan Substance Abuse Services Access Line: 800.686.0749

### **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 or rejection of such conduct is made either explicitly or implicitly a term or condition of an individual's employment or grade; or
2. 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.

### **Student Right to Due Process**

Due process rights extend to the procedures for "Non-Academic Violation" and "Academic Dishonesty." Due process at North Central means that a student has the following rights:

- A. To be informed in writing of the specific charges and the grounds for such charges.
- B. To have a chosen advisor or counselor or lawyer (at the student's own expense) present for advice before, during and/or after any judicial hearing. The role of this individual is limited to an advisory capacity with no right of cross-examination.
- C. To be present at such hearing, if desired.
- D. To exercise a privilege against self-incrimination.
- E. To hear or examine evidence presented to the committee reviewing the case and to present evidence by witnesses or affidavit of any defense the student desires. Further, the student shall be given the opportunity to cross-examine witnesses.
- F. To be informed in writing of the Dean or the Committee's final decision.
- G. To waive the right of a formal hearing before the Committee and to have the case heard by the appropriate Dean.
- H. To appeal the decision of the Dean or Judicial Committee to the President for review of disciplinary due process.



## Student Standards of Conduct

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 Conduct Standards (listed below), he or she can be subject to disciplinary action. Further, sanctions may be imposed upon student groups or organizations, including the sanction of deactivation which entails the loss of all the privileges and/or College recognition for a specified period of time. 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 insure that the student receives fair and equitable treatment. If you are seeking a degree at North Central and fail to disclose that you have attended other academic institutions prior to your enrollment at North Central, you are violating the Student Conduct Standards and are jeopardizing your continued enrollment at North Central.

### Forms of misconduct:

The following forms of misconduct will not be tolerated by the College:

**Dishonesty**, including knowingly furnishing false information to the College or a College officer whether verbally, in writing or by completing required forms. If you are seeking a degree at North Central and fail to disclose that you have attended other academic institutions prior to your enrollment at North Central, you are violating the Student Conduct Standards and are jeopardizing your continued enrollment at North Central.

**Academic dishonesty**, misconduct, cheating or plagiarism or other forms of academic dishonesty including acquisition without permission of tests or other academic materials. Included are those students who aid and abet,

as well as those who attempt such behavior. Plagiarism includes, but is not limited to, the use whether by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear attribution. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

Incidents of academic dishonesty shall be dealt with according to the procedures outlined in Academic Dishonesty Process.

**Forgery**, alteration or misuse of College documents, records or identification, or forging a College staff person's name or initials.

**Disruption** or unauthorized interruption of college activities.

**Harassment of any form** toward an individual or group of individuals. **NOTE:** The Elliott-Larsen Civil Rights Act defines sexual harassment as "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communication of a sexual nature" when such "conduct or communication has the purpose or effect of substantially interfering with an individual's ...education... or creating an intimidating, hostile or offensive... educational...environment."

**Verbal or physical conduct** of a sexual nature that unreasonably interferes with another and creates an intimidating, hostile or offensive environment.

**Conduct** or expressions of a disorderly, obscene or sexually offensive nature contrary to generally recognized community standards of propriety or good taste.

**Theft of, or damage to**, property of the College or a member of the College community or campus visitor.

**Unauthorized entry** to and/or use of College facilities and equipment. Also, possession of keys or duplication of College keys without proper authorization.

**Distribution**, use, possession or being under the influence of alcoholic beverages or illegal drugs or controlled substances on campus. Federal/State laws related to underage drinking/drug laws will be enforced with the assistance of appropriate authorities.

**Disobedience** toward College officials or designated agents acting in the performance of their duty.

**Fire Fighting Equipment and Fire Drills.**

Pulling false fire alarms, tampering with or misusing fire alarm systems, interfering with firemen and tampering with or removing fire-fighting equipment are prohibited. All persons are expected to follow posted building evacuation procedures in the event of fires or fire drills.

**Soliciting.** Soliciting in campus buildings or on campus grounds is prohibited. Exceptions are made for ticket sales for campus functions only when approved by the Dean of Student Services. Students are not allowed to use their residence hall rooms for any commercial purpose.

**Gambling.** Gambling of any kind is not permitted on the campus or at College sponsored events.

**Use and/or misuse of the College computer system,** facilities, hardware, software and all computerized information is prohibited in the following circumstance, including but not to be limited to the following:

- Unauthorized entry into a file, whether to use, read, change or for any other purpose.
- Unauthorized transfer of a file.
- Unauthorized use of another individual's identification and password.
- Use of computing facilities to interfere with the work of another student, faculty member or College official.
- Use of computing facilities to send obscene or abusive messages.
- Use of computing facilities to interfere with normal operation of the College's computing system.

- Use of computing facilities in a manner which violates state or federal copyright laws, e.g., unauthorized duplication of copyrighted or licensed software.

**Possession** or use of explosives, weapons, firearms, knives or fireworks.

**Disciplinary Actions:**

Violations of the Student Conduct Standards are subject to disciplinary action. After considering information presented at a hearing, the Dean of Student Services or the Campus Judicial Committee will make a decision as to guilt or innocence. In the case of a "guilty" decision, the Dean of Student Services or the Campus Judicial Committee will determine the appropriate sanction. Appropriate action may include, but is not limited to:

1. **Warning:** An official reprimand which expresses College dissatisfaction with the student's conduct and which clarifies expected behavior in the future.
2. **Probation:** Probation status indicates that any violation of Student Conduct Standards within the probationary period shall result in more severe disciplinary action against the student that could include suspension from the institution. Probation in itself does not carry with it any restrictions; but, in addition to probation, it is possible for a student to be required to complete a work assignment, make restitution or be prohibited from holding an office or representing the College in any activity.
3. **Removal from a course:** A student may continue to attend other classes, but may not resume attendance in the course from which he or she has been removed. In the event a student is removed from a course, he or she will be given either a withdrawal or a failure in accordance with the College's course withdrawal policy.
4. **Suspension:** An action that separates the student from the institution for a definite period of time (days, weeks, semesters, for example). Such action will include the conditions required for readmission, as well as the date the student will be eligible to return.

5. **Expulsion:** An action that permanently separates the student from the institution.
6. **Specific Orders:** An action which may stand alone or be issued with another sanction. Specific orders may include, but are not limited to, performance or nonperformance of specific acts, loss of certain privileges, payment of fines and/or restitution.

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](http://www.ncmich.edu).

## Campus Life

### 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, Blackboard, MyMail, the Library, wireless Internet access and other services. 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.

### Campus Housing and Student Activities

The residence hall can house more than 100 students and 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 availability. 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 resident assistants and the Director of 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.

### Phi Theta Kappa

North Central Michigan College recognizes the success of its outstanding students by participating in Phi Theta Kappa, the international honor society of the two-year college. 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 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 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 Outreach and Engagement. 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 Outreach and Engagement. Students who wish to form a student organization or want to know

more about Student Senate should contact the Director of Student Outreach and Engagement.

### **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 Outreach and Engagement.

## **North Central and the Community**

### **Corporate and Community Education**

Corporate and Community Education (CCE) is a division of North Central created to respond to the needs of area businesses. CCE offers non-credit job skills training tailored to meet individual needs. CCE 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. CCE helps secure state and federal funds to offset training costs for qualified businesses
- Portable computer lab for on-site training
- Certificate of Completion and CEUs recognized by industry

Examples of programs offered by CCE:

- 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

### **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 the following:

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.

### **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.

### **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.

## **Our History**

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 71,000 square foot Student and Community Resource Center was 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.

The newest addition to the campus is the Jack and Dorothy Harris Health Education and Science Center. Ground was broken on the new facility in July 2011. The center greatly expands North Central's ability to offer instruction in the sciences and health careers.

### **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.

## Faculty, Administration and Staff

### Faculty

**Anderson, Rod**

Economics and Business  
B.A., Wheaton College  
M.S., Montana State University  
231-348-6657  
randerson@ncmich.edu

**Blaauw-Hara, Jami**

English  
B.A., University of Michigan  
M.A., Michigan State University  
231-439-6319  
jhara@ncmich.edu

**Blaauw-Hara, Mark**

English  
B.A., Michigan State University  
M.A., Arizona State University  
231-348-6631  
mhara@ncmich.edu

**Bowe, Jane**

Office Administrative Services  
B.B.A., Western Michigan University  
M.A., Wayne State University  
231-348-6647  
jbowe@ncmich.edu

**Carlson, Karen**

Mathematics  
B.S., Oakland University  
M.A., Western Michigan University  
231-348-6665  
kcarlson@ncmich.edu

**Christensen, Ralph, Ph.D.**

Chemistry  
B.S., Brigham Young University  
M.E., University of Utah  
Ph.D., Texas A&M University  
231-348-6655  
rchristensen@ncmich.edu

**Cummings, Larry**

History and Geography  
A.A., Northwestern Michigan College  
B.A., Bowling Green State University  
M.A., Central Michigan University  
231-348-6637  
lcummings@ncmich.edu

**Dean, Deborah**

English  
B.A., Grand Valley State University  
M.A., Western Michigan University  
231-439-6240  
ddean@ncmich.edu

**Duggan, Dennis**

Political Science and Sociology  
B.A., Ohio Dominican College  
M.P.A., University of Texas at San Antonio  
M.Div., Saint John's University  
231-348-6638  
dduggan@ncmich.edu

**Finlayson, Kerri**

Sociology and Anthropology  
B.A., University of Michigan  
M.A., University of Illinois  
231-348-6653  
kfinlayson@ncmich.edu

**Germain, Kathleen**

Biology  
B.S., Michigan State University  
M.S., University of Michigan  
231-348-6641  
kgermain@ncmich.edu

**Goetz, Brian**

Mathematics  
B.S., Worcester Polytechnic Institute  
M.S., Michigan State University  
M.S., Western Michigan University  
231-348-6663  
bgoetz@ncmich.edu

**Haight, Erick**

Psychology  
A.S., Kirtland Community College  
B.A., M.S., M.A., Central Michigan University  
231-348-6648  
ehaight@ncmich.edu

**Harrington, Fred**

Computer Networking  
A.S., North Central Michigan College  
B.S., Michigan State University  
M.A., Michigan State University  
M.B.A., Lawrence Technological University  
231-348-6666  
fharrington@ncmich.edu

**Jessick, Chet**

Marketing and Management  
A.A., Winston Churchill College  
B.A., M.B.A., Northern Michigan University  
231-348-6649  
cjessick@ncmich.edu

**Kam, Hwee-Joo**

Computer Information Systems  
B.A., M.S., University of Nebraska-Lincoln  
231-348-6652  
hkam@ncmich.edu

**Kersting, Gary**

Mathematics  
B.S., M.S., Michigan State University  
231-348-6646  
gkersting@ncmich.edu

**Kolodziej, Jo-Anna**

Coordinator of Early Childhood Education  
B.S., M.A., Michigan State University  
231-439-6224  
jkolodziej@ncmich.edu

**Lempke, Jennifer**

Mathematics  
B.S., Pepperdine University  
M.A., California State University-Northridge  
231-348-3064  
jlempke@ncmich.edu

**McCullough, James**

English  
B.A., University of Michigan  
M.A., Middlebury College and Lincoln College-  
Oxford University  
231-348-6650  
jmccullough@ncmich.edu

**Paquet, Erayna**

Nursing and Allied Health  
B.S.N., Lake Superior State University  
M.S.N., Saint Joseph's College of Maine  
231-348-6635  
epaquet@ncmich.edu

**Payne, David, Ph.D.**

Philosophy  
B.A., Grand Rapids Baptist College  
M.A., Western Kentucky University  
M.A., Ph.D., University of Miami  
231-348-6683  
dpayne@ncmich.edu

**Rasch, Therese**

Nursing  
R.N., Butterworth Hospital School of Nursing  
B.S.N., University of Michigan  
M.S.N., Oregon Health Sciences University  
ANCC Certification, Clinical Specialist  
231-347-6744  
trasch@ncmich.edu

**Robinson, Shanna**

Art  
B.F.A., M.F.A., Eastern Michigan University  
231-439-6376  
srobinson@ncmich.edu

**Rodgers, David**

Chemistry and Earth Sciences  
B.S., University of Texas-Dallas  
M.S., Eastern Michigan University  
231-348-6694  
drodgers@ncmich.edu

**Shumway, Suzanne, Ph.D.**

English and Communications  
B.A., Rice University  
M.A., University of California-Irvine  
Ph.D., University of Texas-Austin  
231-348-6643  
sshumway@ncmich.edu

**Still, Carol Louden**

Nursing  
A.A.S., North Central Michigan College  
B.S.N., University of Michigan  
M.S.N., Northern Michigan University  
231-348-6640  
cstill@ncmich.edu

**Yuengling, Kurt**

Earth Sciences  
B.A., SUNY Geneseo  
M.S., University of Alaska-Fairbanks  
231-348-6645  
kyuengling@ncmich.edu

## Administrative and Support Staff

**Amo, Jolene**

Executive Secretary to the President  
231-348-6667  
jamo@ncmich.edu

**Andrews, Michele**

Director of Off-Campus Programming  
B.S., Central Michigan University  
M.A., Spring Arbor University  
Gaylord 989-705-3775  
Cheboygan 231-597-0322  
mandrews@ncmich.edu

**Baldwin, Tana**

Library and Academic Technologies Technician  
B.S., M.A., Western Michigan University  
231-439-6553  
tbaldwin@ncmich.edu

**Barber, Rick**

Director of Adjunct Faculty  
B.S., Central Michigan University  
B.S., Oakland University  
231-348-6812  
rbarber@ncmich.edu

**Bardins, Kathryn**

Marketing Assistant  
B.A., Lynchburg College  
231-439-6399  
kbardins@ncmich.edu

**Barrette, Yolonda**

Secretary, Dean of Finance and Facilities  
A.A., Lake Superior State University  
231-348-6703  
ybarrette@ncmich.edu

**Barta, Sue**

Receptionist-Student Services  
B.A., Lake Superior State University  
231-348-6612  
sbarta@ncmich.edu

**Bauman, Shawn**

Coordinator of Design and Publications  
A.A.S., Northwestern Michigan College  
B.S., Western Michigan University  
231-348-6840  
sbauman@ncmich.edu

**Boring, David B.**

Director of Information Systems  
A.A., Northwestern Michigan College  
B.S., Central Michigan University  
231-348-6838  
dboring@ncmich.edu

**Brodie, John**

Maintenance Supervisor  
B.S., Michigan State University  
231-439-6293  
jbrodie@ncmich.edu

**Brown, Cathy**

Academic Advisor  
B.A., Alma College  
231-348-6826  
cbrown@ncmich.edu

**Brunet-Koch, Cameron, Ph.D.**

President  
B.A., Oakland University  
M.A., Michigan State University  
Ph.D., University of Michigan  
231-348-6601  
ckoch@ncmich.edu

**Burns, Kim**

Senior Academic and Administrative Support  
Technologist  
A.A.S., North Central Michigan College  
231-348-6836  
kburns@ncmich.edu



**Cannon, Susan**

Program Assistant, East Jordan  
A.A., North Central Michigan College  
B.A., Spring Arbor University  
231-536-9702  
scannon@ncmich.edu

**Caron, Sue**

Accounts Payable Clerk  
Associate of Commerce, North Central Michigan  
College  
231-348-6608  
saron@ncmich.edu

**Castagne, Mickey**  
**Coordinator of Criminal Justice and Legal  
Assistant Programs**

B.S., Lake Superior State University  
J.D., Thomas M. Cooley Law School  
mcastagne@ncmich.edu

**Cerrudo, Chris**

Instructional Technologist/Networking  
231-439-6350  
ccerrudo@ncmich.edu

**Clark, Daniel**

Physical Plant Staff  
231-439-6384  
dclark@ncmich.edu

**Colby, Melissa**

Financial Aid Advisor  
B.S., Lake Superior State University  
M.B.A., Davenport University  
231-348-6627  
mcolby@ncmich.edu

**Cole, Randy**

Director of Food Service and Conference Center  
231-439-6391  
rcole@ncmich.edu

**Cornett, Laurie**

Secretary, Dean of Student Services  
A.A.S., North Central Michigan College  
231-348-6510  
lcornett@ncmich.edu

**Culvahouse, Dallas**

Assistant to Director of Student and Community  
Resource Center  
231-439-6321  
dculvahouse@ncmich.edu

**Cyrulik, Kathy**

Academic Advisor - Gaylord  
B.A., University of South Florida  
989-705-3775  
kcyrulik@ncmich.edu

**Daniels, Maggie**

Director of Student and  
Community Resource Center  
A.A.S., North Central Michigan College  
B.Mus.Ed., Central Michigan University  
M.A., Central Michigan University  
231-348-6689  
mdaniels@ncmich.edu

**Deal, Bethany**

Assistant, Learning Support Services  
A.A., North Central Michigan College  
231-348-6687  
bdeal@ncmich.edu

**Deal, Josh**

Director of Campus Housing  
A.A., North Central Michigan College  
B.S.W., Western Michigan University  
231-439-6443  
jdeal@ncmich.edu

**Denay, Clifford, Jr.**

Counselor  
B.A., Saginaw Valley State University  
M.A., Ed.S., Central Michigan University  
231-348-6695  
cdenay@ncmich.edu

**DeWinter, Naomi**

Dean of Student Services  
B.A., M.A., Eastern Michigan University  
231-348-6618  
ndewinter@ncmich.edu

**DeYoung, Renee**

Registrar  
A.A.S., North Central Michigan College  
B.A., Goshen College  
M.B.A., Lawrence Technological University  
231-439-6347  
rdeyoung@ncmich.edu

**Dow, Heather**

Student Account Specialist  
A.G.S., North Central Michigan College  
231-348-6803  
hdow@ncmich.edu

**Dulaney, Sharmon**

Foundation Office Assistant  
B.S., Northern Michigan University  
231-439-6218  
sdulaney@ncmich.edu

**Elyea, Len**

Director of Networks, Technology Security, and  
Programming  
231-439-6328  
lelyea@ncmich.edu

**Flewelling, Kathryn**

Director of Learning Support Services  
B.A., Western Michigan University  
M.F.A., Ohio State University  
231-348-6817  
kflewelling@ncmich.edu

**Fought, Wendy**

Director of Student Outreach and Engagement  
A.A., North Central Michigan College  
B.A., Alma College  
M.A., Central Michigan University  
231-439-6349  
wfought@ncmich.edu

**Furgeson, Kathy**

Physical Plant Staff  
231-439-6298  
kfurgeson@ncmich.edu

**Gardner, Jeff**

Director of Physical Plant/Purchasing  
A.A.S., Grand Rapids Community College  
231-348-6624  
jgardner@ncmich.edu

**Gatesy, Marlene**

Gaylord Office Assistant  
989-705-3775  
mgatesy@ncmich.edu

**Hall, Debbie**

Physical Plant Staff  
231-439-6297  
dhall@ncmich.edu

**Hamlin, Jon**

Physical Plant Staff  
231-439-6295  
jhamlin@ncmich.edu

**Hammond, Christine, Ph.D.**

Dean of Instruction and Student Success  
B.A., Thiel College  
M.A., Bowling Green State University  
Ph.D., Michigan State University  
231-348-6660  
chammond@ncmich.edu

**Hodulik, Eugene**

Lead Mathematics Tutor  
B.S., M.A., Bowling Green State University  
231-439-6374  
ehodulik@ncmich.edu

**Jones, Kim**

Clerical Assistant, IBIT  
A.A., North Central Michigan College  
B.A., Baker College  
231-439-6525  
kjones@ncmich.edu

**Kandt, Jennifer**

Instructional Support Assistant  
A.A., North Central Michigan College  
231-348-6707  
jkandt@ncmich.edu

**Killian, Melinda**

Cashier-Accounting Technician  
A.A.S., North Central Michigan College  
231-348-6633  
mkillian@ncmich.edu

**Kingsbury, Kim**

Secretary, Associate Dean of Nursing and  
Allied Health  
231-348-6696  
kkingsbury@ncmich.edu

**Kiteley, Carrie**

General Ledger/Payroll Specialist  
A.A., A.A.S., North Central Michigan College  
B.B.A. Davenport University  
231-348-6620  
ckiteley@ncmich.edu

**Krussell, Matt**

Physical Plant Staff  
231-439-6293  
Mkrussell1@ncmich.edu

**Krussell, Michelle**

HVAC /Plumbing  
231-439-6337  
mkrussell@ncmich.edu

**Leithauser, Helen**

Business Training Coordinator, CCE  
B.G.S., University of Michigan  
231-348-6705  
hleithauser@ncmich.edu

**MacInnis, Charles**

Director of Public Relations  
B.A., Michigan State University  
231-348-6839  
cmacinnis@ncmich.edu

**Maier, Alex**

Student Information System Analyst  
A.A.S., North Central Michigan College  
B.S., Ferris State University  
231-439-6555  
amaier@ncmich.edu

**Marek, Kathleen**

Admissions Specialist  
231-348-6626  
kmarek@ncmich.edu

**Marsh, Robert, Ph.D.**

Associate Dean of Research and Assessment  
B.S., B.A., University of California at  
Santa Barbara  
M.B.A., Lake Superior State University  
Ph.D., Michigan State University  
231-439-6353  
rmarsh@ncmich.edu

**McDonald, Todd**

Dean of Finance and Facilities  
B.S., M.S. Northern Illinois University  
231-348-6603  
toddmcdonald@ncmich.edu

**McLin, Samantha**

Associate Dean of Liberal Arts  
A.A., Moberly Area Community College  
B.S., M.A., Central Missouri State University  
231-348-6604  
smclin@ncmich.edu

**Miles, Mary**

Associate Dean of Nursing and Wellness  
B.S.N., Nazareth College  
M.S.N., Northern Michigan University  
231-348-6658  
mmiles@ncmich.edu

**Modrzynski, Paul**

Network Technician  
231-348-6835  
pmodrzynski@ncmich.edu

**Morris, Nicki**

Records Assistant  
A.A., North Central Michigan College  
231-348-6625  
nmorris@ncmich.edu

**Mueller, Mark**

Physical Plant Staff  
231-439-6299  
mmueller@ncmich.edu

**Nathe, Thomas**

Director of Corporate and Community Education  
A.A., North Dakota State University  
B.A., Arizona State University  
M.A., Central Michigan University  
231-348-6613  
tnathe@ncmich.edu

**Olson, Peter, Ph.D.**

Associate Dean of Health, Business and  
Technology  
B.A., University of Colorado  
M.A., Ph.D., University of Michigan  
231-348-6619  
polson@ncmich.edu

**Otto, Liz**

Secretary, Learning Support Services and  
Tutorial Coordinator  
A.A.S., North Central Michigan College  
231-348-6693  
eotto@ncmich.edu

**Panoff, Virginia**

Director of Financial Aid  
B.B.A., Eastern Michigan University  
231-348-6698  
vpanoff@ncmich.edu

**Pollion, Sean**

Executive Director, NCMC Foundation  
B.S., Western Michigan University  
M.S.A., Central Michigan University  
231-348-6621  
spollion@ncmich.edu

**Poxson, Maggie**

Library Technical Assistant  
231-439-6315  
mpoxson@ncmich.edu

**Reeb, David**

Academic Advisor  
231-348-6825  
dreeb@ncmich.edu

**Rieck, Doug**

Physical Plant Staff  
231-439-6294  
driek@ncmich.edu

**Roback, Tim**

Physical Plant Staff  
231-348-6702  
troback@ncmich.edu

**Shuman, Sarah**

Coordinator of College and University Relations  
B.A., University of Colorado  
M.B.A., University of Michigan  
231-439-6546  
sshuman@ncmich.edu

**Slater, Troy, CPA**

Director of Business Services  
A.A., Northwestern Michigan College  
B.S., Ferris State University  
231-348-6610  
tslater@ncmich.edu

**Slifka, John**

Physical Plant Staff  
231-439-6296  
jslifka@ncmich.edu

**Souza, Diana, PHR**

Human Resources Coordinator  
A.A.S., North Central Michigan College  
B.A., M.A., Spring Arbor University  
231-348-6837  
dsouza@ncmich.edu

**Striegel, Teresa**

Lead English Tutor  
B.A., Indiana University  
M.A., Central Michigan University  
231-439-6345  
tstriegel@ncmich.edu

**Teel, Eunice**

Librarian  
B.A., Eastern Michigan University  
M.L.S., Syracuse University  
231-348-6715  
eteel@ncmich.edu

**Tobin, Julieanne**

Academic Advisor  
B.A., Wayne State University  
M.S.A., Central Michigan University  
231-439-6511  
jtobin@ncmich.edu

**Weaver, Julie**

College Store Manager  
B.S., Ramapo College  
231-348-6606  
jweaver@ncmich.edu

**Welmers, Paula, Ed.D., L.P.C.**

Counselor  
B.A., M.A., University of Michigan  
Ed.D., Eastern Michigan University  
231-348-6700  
pwelmers@ncmich.edu

**Williams, Susan**

Secretary, IBIT  
231-348-6708  
swilliams@ncmich.edu

**Willis, Kristine**

Accounts Receivable Clerk  
A.A.S., Cape Fear Community College  
231-348-6607  
kwillis@ncmich.edu

**Wood, Jennifer**

Secretary, Dean of Instruction and Student Success  
A.A.S., North Central Michigan College  
231-348-6816  
jwood@ncmich.edu

**Wregglesworth, Dawn**

Assistant to College Store Manager  
A.A.S., North Central Michigan College  
231-348-6806  
dwregglesworth@ncmich.edu

## Campus

### **Administration/Classroom Building**

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

### **College Store**

The College Store, located in the Student and Community Resource Center, has books, student supplies, clothing, and gift items for sale. Students can purchase textbooks online through the store's website, <http://collegestore.ncmich.edu>.

### **Jack and Dorothy Harris Health Education and Science Center**

This new 23,300 square-foot facility is home to classrooms, faculty offices and laboratories for instruction in biology, chemistry, earth science and physics. Attached to the new building is newly renovated instructional space for nursing and allied health programs.

### **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 1<sup>st</sup> Congressional District of Michigan.

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

### **Residence Hall**

On-campus housing is available for up to 148 students. Each room in the residence hall has a cable TV hookup and 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.

### **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.

### **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.

The Cafeteria is located in the upper level. North Central offers food service for students, faculty, staff and guests throughout the school year.

### **Technology Building**

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

## What You Will Learn at North Central Michigan College

Associate degree programs at North Central are designed to provide students with a solid foundation for launching their careers or transferring to a four year university. When you have earned your associate's degree, you will have gained, and will be able to demonstrate, knowledge and skills in the following areas:

- Broad integrative knowledge in the a range of academic disciplines. In gaining this knowledge, you will learn to do the following:
  - Describe how existing knowledge or practice is advanced, tested and revised
  - Describe different perspectives on key debates and understand their significance both within your field of study and in society.
  - Illustrate core concepts in your field by performing analytical, practical or creative tasks.
  - Select and apply methods for solving problems in your field of study.
  - Assemble, evaluate and analyze evidence related to problems in your field of study.
  - Describe how at least two different fields approach the challenges we face in our world today.
- Specialized knowledge in a focused area of study. Through your academic program you will learn to do the following:
  - Describe the scope and principal features of your field of study and at least one other field.
  - Understand and use contemporary terminology used in the field.
  - Generate work products that are substantially error-free.
- Intellectual skills. Your studies at North Central will enable you to do the following:
  - Identify, categorize and compare ideas, concepts, theories and practical approaches to standard problems.
  - Identify, evaluate and use0 information from many resources.
  - Describe how your knowledge of different cultural perspectives can help you to interpret problems and solutions in the modern world.
  - Perform and explain accurate calculations and symbolic operations.
  - Write error-free prose in various forms and for various audiences.
- Applied the knowledge gained in the classroom to real world settings. You will learn to apply the knowledge gained in the classroom to real-world settings as you do the following:
  - Describe in writing a substantial case in which classroom knowledge was applied in a non-academic setting.
  - Find, collect and organize evidence on an assigned topic that addresses a problem in a work or community setting.
- Community engagement and civic learning. Your education at North Central will enable you to do the following:
  - Describe your own civic and cultural background.
  - Describe diverse positions and present your own position on a specific problem where other values or practices are involved.
  - Take an active role in a community context (work, service, co-curricular activities, etc.), examines the civic issues you encounter, and the insights you have gained.

## Degrees Conferred at North Central Michigan College

**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. (Program Code: 300)

**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. (Program Code: 400)

**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 and Early Childhood Education.

**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. (Program Code: 600)

**Certificate:** A short-term career program. Most certificates are composed of 10 courses, half the number in the typical associate's 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 associate's degree in the same area.

**Certificate of Development:** A Certificate of Development has fewer than 30 credit hours and indicates a basic understanding of a subject or a specific skill.

### **Not sure which path is right for you?**

Exploring your options is much more effective when you do it with an experienced guide. North Central's academic advisors and counselors can help you set goals and develop a map for achieving them. Call 888-298-6605 or 231-348-6605.

**Degree Programs: Requirements at a Glance**

	Associate of Arts	Associate of Science	Associate of General Studies	Associate of Applied Science
English Composition	ENG 111 & ENG 112	ENG 111 & ENG 112	ENG 111 & ENG 112	ENG 111 & ENG 112
Communication	COM 111	COM 111	COM 111 or COM 170	COM 111 or COM 170
Mathematics	MATH 112 or MATH 120 or Above	MATH 130 or Above	MATH 110 or B104	Varies by Program
Humanities	1 course from 3 disciplines: ART 105, 106 or 115 HST 131 or 232 PHL 101 or 105 REL 100 ENG 130 or 231 MU 120 THF 101 LANGUAGES Other Than English at the 111 Level or Above (excludes NISH 150,190, 245)	1 course from 3 disciplines: ART 105, 106 or 115 HST 131 or 232 PHL 101 or 105 REL 100 ENG 130 or 231 MU 120 THF 101 LANGUAGES Other Than English at the 111 Level or Above (excludes NISH 150,190, 245)	One Course Refer to MACRAO Humanities Category on Page 59	Varies by Program
Science	2 lab courses from 2 disciplines: BIO 101 or above CEM 101 or above ESC 101 or above PHY 101 or above	2 lab courses from 2 disciplines: BIO 101 or above CEM 101 or above ESC 101 or above PHY 101 or above	One Science Course Refer to MACRAO Science Category on Page 59	Varies by Program
Social Science	3 courses from the following list: ANP110 ECO111 GEO121 PLS 141 PSY 161 SOC171	3 courses from the following list: ANP110 ECO111 GEO121 PLS 141 PSY 161 SOC171	One Course Refer to MACRAO Social Science Category on Page 59	Varies by Program
Electives	19-21	19-21 including 16 credits of additional science and math higher than MATH130	36-39 credits	Varies by Program
MACRAO	Satisfied	Satisfied	May be filled by using electives	May be filled by using electives. ECE AAS satisfies the MACRAO

The associate's degrees listed above 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 two credits in Physical Education area.



## General Education

The general education requirements at North Central provide a foundation for students in core areas of study.

All students are required to take English composition courses in order to learn to write effectively; a communications course to enhance their verbal skills; and a mathematics course to learn skills in logic, conceptual operations, and accurate calculation.

In addition to English, communication and mathematics, students gain a broad orientation to academic disciplines by taking a selection of courses in the humanities, sciences, and social sciences.

**The Humanities** focus on the study of the human condition and help us to understand our lives and world, using methods that are primarily analytical, critical, or contemplative. Humanities disciplines include modern languages, literature, history, philosophy, religion, and the visual and performing arts.

**The Sciences** explore the scope and major concepts of a scientific discipline such as biology, chemistry, earth science or physics. In these courses, students learn the attitudes and practices of scientific investigators, including logic, precision, experimentation, tentativeness, and objectivity. The laboratory component of these courses provides experience in the methods of scientific inquiry.

**The Social Sciences** are academic disciplines the focus on society and human behavior. Social and behavioral sciences use observational and experimental methods to understand the actions and reactions of humans and animals. Fields of study within the social sciences include anthropology, economics, geography, and psychology.

General Education Distribution Requirements for the Associate of Arts and Associate of Science Degrees include 26 credits selected as described from the following categories:

Science – 2 lab courses from two disciplines selected from the following list:

BIO101(or above)	Intro. to Biology	(4)
CEM101 (or above)	Fundamentals of Chemistry	(4)
ESC101 (or above)	Introduction to Earth Science	(4)
PHY101 (or above)	Concepts in Physics	(4)

Social Science – 3 courses from the following list:

ANP110	Cultural Anthropology	(3)
ECO111	Macroeconomics	(3)
GEO121	World Geography	(3)
PLS141	Intro. to American Government	(3)
PSY161	Intro. to Psychology	(3)
SOC171	Intro. to Sociology	(3)

Humanities – 3 courses, no more than 1 course from each category:

<u>ART</u>		
ART 105	History of Art I	(3)
ART 106	History of Art II	(3)
ART 115	History of Non-Western Art	(3)

<u>HISTORY</u>		
HST 131	U.S. History (1607-1877)	(3)
HST 232	Survey of Later Western Civilization	(3)

<u>PHILOSOPHY</u>		
PHL 101	Introduction to Philosophy	(3)
PHL 105	Introduction to Ethics	(3)

<u>RELIGION</u>		
REL 100	World Religion	(3)
<u>ENGLISH</u>		
ENG 130	Introduction to Literature	(3)
ENG 231	American Literature I	(3)
<u>LANGUAGES OTHER THAN ENGLISH</u>		
FR111 or above	French	(4)
NISH111 or above	Anishnaabemowin	(4)
	(Excludes NISH150, 190, 245)	
SPAN111 or above	Spanish	(4)
RUS111 or above	Russian	(4)
<u>MUSIC</u>		
MU 120	History of Music	(3)
<u>THEATRE</u>		
THF 101	Survey of the Theatre	(3)

## Associate's Degrees 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](http://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](http://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.

**General Education Requirements for Associate of Arts and Associate of Science Degrees**

The Associate Degree programs at North Central are designed to provide students with a solid foundation for launching their careers or transferring to a four year university.

Program requirements for each degree ensure that all students:

- Gain broad integrative knowledge in the a range of academic disciplines;
- Gain specialized knowledge in a focused area of study;
- Sharpen intellectual skills in the areas of analytic inquiry, the appropriate use of information resources, the appreciation of diverse perspectives, and the ability to communicate effectively.
- Apply the knowledge gained in the classroom to real world settings
- Engage with their communities and their role in civic life.

**Associate of Arts and Associate of Science Degrees**

General education courses provide students with a broad orientation to academic disciplines in the humanities, sciences and social sciences

along with foundational skills in mathematics, composition, and speech.

**The Humanities** focus on the study of the human condition and help us to understand our lives and world, using methods that are primarily analytical, critical, or contemplative. Humanities disciplines include modern languages, literature, history, philosophy, religion, and the visual and performing arts.

**The Sciences** explore the scope and major concepts of a scientific discipline such as biology, chemistry, earth science or physics. In these courses, students learn the attitudes and practices of scientific investigators, including logic, precision, experimentation, tentativeness, and objectivity. The laboratory component of these courses provides experience in the methods of scientific inquiry.

**The Social Sciences** are academic disciplines the focus on society and human behavior. Social and behavioral sciences use observational and experimental methods to understand the actions and reactions of humans and animals. Fields of study within the social sciences include anthropology, economics, geography, and psychology.

All students enrolled in the Associate of Arts (AA) and the Associate of Science (AS) degrees are required to complete the following courses:

**English Composition**

ENG 111	English Composition	(3)
ENG 112	English Composition	(3)

**Communications**

COM 111	Speech	(3)
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**Mathematics**

**Associate of Arts (AA) Degree requirement**

MATH 112	Beginning and Intermediate Algebra II	(4) <b>or</b>
MATH 120	Intermediate Algebra	(4) <b>or</b>

A Mathematics course of a higher level

**Associate of Science (AS) Degree requirement**

MATH 130	College Algebra or a Mathematics course of a higher level	
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**Science** – 2 lab courses from two disciplines selected from the following list:

BIO101 (or above)	Intro. to Biology	(4)
CEM101 (or above)	Fundamentals of Chemistry	(4)
ESC101 (or above)	Introduction to Earth Science	(4)
PHY101 (or above)	Concepts in Physics	(4)

**Social Science** – 3 courses from the following list:

ANP110	Cultural Anthropology	(3)
ECO111	Macroeconomics	(3)
GEO121	World Geography	(3)
PLS141	Intro. to American Government	(3)
PSY161	Introduction to Psychology	(3)
SOC171	Introduction to Sociology	(3)

**Humanities** – 3 courses, no more than one course from each category:

**ART**

ART 105	History of Art I	(3)
ART 106	History of Art II	(3)
ART 115	History of Non-Western Art	(3)

**HISTORY**

HST 131	U.S. History (1607-1877)	(3)
HST 232	Survey of Later Western Civilization	(3)

**PHILOSOPHY**

PHL 101	Introduction to Philosophy	(3)
PHL 105	Introduction to Ethics	(3)

**RELIGION**

REL 100	World Religion	(3)
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**ENGLISH**

ENG130	Introduction to Literature	(3)
ENG231	American Literature I	(3)

**LANGUAGES OTHER THAN ENGLISH**

FR111 or above	French	(4)
NISH111 or above	Anishnaabemowin (Excludes NISH150, 190, 245)	(4)
SPAN111 or above	Spanish	(4)
RUS111 or above	Russian	(4)

**MUSIC**

MU 120	History of Music	(3)
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**THEATRE**

THF 101	Survey of the Theatre	(3)
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**Associate of Arts (AA)**

Program Code 300

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.

<b>General Education</b>		39-41 Credit Hours	
	<b>English</b>	6 credit hours	-ENG 111 -ENG 112
	<b>Communications</b>	3 credit hours	-COM 111
	<b>Mathematics</b>	4 credit hours	<b>Satisfied by one of the following:</b> -Math 112 or 120 or above -STAT 200 -ACT Mathematics score of 23 or higher -COMPASS Mathematics score of 171 or higher
	<b>Humanities</b>	9 credit hours	<b>1 course from 3 disciplines:</b> -ART 105, 106 or 115 -HST 131 or 232 -PHL 101 or 105 -REL 100 -ENG 130 or 231 -MU 120 -THF 101 -LANGUAGES other than English at the 111 Level or above (excludes NISH 150,190, 245)
	<b>Science</b>	8-9 credit hours	<b>2 lab courses from 2 disciplines:</b> -BIO 101 or above -CEM 101 or above -ESC 101 or above -PHY 101 or above
	<b>Social Science</b>	9-10 credit hours	<b>3 courses from the following list:</b> -ANP 110 -ECO 111 -GEO 121 -PLS 141 -PSY 161 -SOC 171
<b>General Electives</b>		19-21 credit hours	Electives should be carefully chosen.

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.

\*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

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

<b>General Education</b>		39-41 Credit Hours	
	<b>English</b>	6 credit hours	-ENG 111 -ENG 112
	<b>Communications</b>	3 credit hours	-COM 111
	<b>Mathematics</b>	4 credit hours	<b>Satisfied by one of the following:</b> -Math 130 or above -ACT Mathematics score of 26 or higher -COMPASS Mathematics score of 246 or higher
	<b>Humanities</b>	9 credit hours	<b>1 course from 3 disciplines:</b> -ART 105, 106 or 115 -HST 131 or 232 -PHL 101 or 105 -REL 100 -ENG 130 or 231 -MU 120 -THF 101 -LANGUAGES other than English at the 111 Level or above (excludes NISH 150,190, 245)
	<b>Science</b>	8-9 credit hours	<b>2 lab courses from 2 disciplines:</b> -BIO 101 or above -CEM 101 or above -ESC 101 or above -PHY 101 or above
	<b>Social Science</b>	9-10 credit hours	<b>3 courses from the following list:</b> -ANP 110 -ECO 111 -GEO 121 -PLS 141 -PSY 161 -SOC 171
<b>Science and Mathematics Electives</b>		16 credit hours	Additional science, mathematics and statistics electives are required. Only math courses higher than MATH 130 are eligible as an elective.
<b>General Electives</b>		3-5 credit hours	Electives should be carefully chosen.

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.

\*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

The Associate of General Studies degree is for students who wish to earn an associate's degree in preparation for 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 or AS.

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.

<b>General Education</b>		21-24 Credit Hours	
	<b>English</b>	6 credit hours	-ENG 111 -ENG 112
	<b>Communications</b>	3 credit hours	-COM 111 or COM 170
	<b>Mathematics</b>	3-4 credit hours	<b>Satisfied by one of the following:</b> -Any Mathematics course above 100 -B 104 -ACT Mathematics score of 21 or higher -COMPASS Mathematics score of 146 or higher
	<b>Humanities</b>	3 credit hours	See <b>Humanities Category</b> in MACRAO Agreement Page 59
	<b>Science</b>	3-4 credit hours	See <b>Science Category</b> in MACRAO Agreement Page 59
	<b>Social Science</b>	3-4 credit hours	See <b>Social Science Category</b> in MACRO Agreement Page 59
<b>General Electives</b>		36-39 credit hours	Electives should be carefully chosen.

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.

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

## Charting Your Path to a Bachelor's Degree

North Central offers three degree programs for students who plan to transfer to senior institutions: the Associate of Arts, Associate of Science and Associate of General Studies.

North Central students have the assurance of transfer agreements between colleges, along with curriculum guides and an important website, [www.macrao.org](http://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.

### Checklist for Transferring

- 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](http://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](http://www.macrao.org).



## **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
- MATH 130
- MATH 140
- M 200
- B 200
- STAT 200

## **Human Services and Social Sciences**

### ***Teacher Certification Programs in Education***

Students planning to become teachers are 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 students are advised to consult with an academic advisor at North Central 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 MATH 125 and MATH 126  
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, choose 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](http://www.mttc.nesinc.com).

## **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.

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.

### **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

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, choose 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.

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.

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).

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, choose COM 111

For Natural Science Group A, choose either BIO 101 or BIO 133

For Social Sciences, choose PSY 161, SOC 171, ECO 111

## 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:

MATH 130	HST 132
STAT 200	HST 270
SPAN 111, 112, 211 or FR 111, 112, 211	PLS 141
ANP 110	PLS 200
ANP 130	PSY 161
ANP 161	PSY 241
ANP 210	PSY 255
ECO 111	PSY 261
ECO 112	SOC 120
GEO 111	SOC 161
GEO 121	SOC 230
HST 131	SOC 27

## Associate of Science

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

#### General Education **39-41 credit hours**

See elsewhere in this catalog for courses fulfilling general education distribution requirements

#### Communications **9 credit hours**

ENG 111  
ENG 112  
COM 111

#### Humanities **9 credit hours**

1 course from 3 disciplines:

ART 105, 106 or 115  
HST 131 or 232  
PHL 101 or 105  
REL 100  
ENG 130 or 231  
MU 120  
THF 101  
Languages Other Than English at the 111 Level or Above

**Social Sciences** **9-10 credit hours**

3 courses from the following list:

ANP110  
ECO111  
GEO121  
PLS 141  
PSY 161  
SOC171

**Natural Sciences** **8-9 credit hours**

2 lab courses from 2 disciplines:

BIO 101 or above  
CEM 101 or above  
ESC 101 or above  
PHY 101 or above

**Mathematics** **4 credit hours**

Satisfied by one of the following:

MATH 130 or higher  
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. Only mathematics course above MATH 130 can be used for an elective in this category.

**General Electives** **3-5 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.

## Health Science and Professions 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  
MATH 140  
MATH 150

### **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

## 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 BIO 101

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

PHY 231

MATH 140

MATH 150

MATH 210

MATH 215

MATH 225

### 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](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.

#### Recommendations for General Electives:

CIS 115

## 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

MATH 130

## 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

MATH 140

CEM 122

##### *Chemistry*

Select PHY 230 for Group B Natural Science choice

CEM 121

CEM 122

CEM 231

CEM 232

MATH 140

MATH 150

PHY 231



*Earth Science and Geology*

Select ESC 121 for Group B Natural Sciences

ESC 101

ESC 122

ESC 201

MATH 140

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

CEM 122

CEM 231

CEM 232

MATH 140

*Physics and Astronomy*

Select CEM 121 for Group B Natural Sciences

ESC 201

PHY 230

PHY 231

CEM 122

MATH 140

MATH 150

MATH 210

MATH 215

Select for a General Elective: CIS 100

## Charting Your Path to a Career Program

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.

### Certificate of Development Programs

North Central offers several certificates of development. These are fewer than 30 credit

### 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

Career programs 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.

hours in length and help the student develop specific skills and knowledge.

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.

### Associate of Applied Science Degrees

All associate of applied science degrees require the following:

- 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

### 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.

## Career Programs

### Art and Communications

132 Art - Fine Craft (C)

133 Art - Studio Art (C)

131 Communications (C)

113 Graphic Arts (CD)

112 Textiles (CD)

### Business Administration

205 Accounting (AAS)

105 Accounting Assistant (C)

110 Advertising Assistant (C)

119 Business Development (CD)

220 Business Management (AAS)

151 Entrepreneurship (C)

142 Entrepreneurship Essentials (CD)

165 General Office Professional (C)

218 Hospitality and Casino Mgmt. (AAS)

118 Hospitality and Casino Mgmt. (C)

117 Hotel and Hospitality (CD)

149 Management (C)

245 Marketing (AAS)

135 Marketing Assistant (C)

109 Microsoft Office Specialist ((CD)

111 New Media (CD)

277 Office Administrative Services (AAS)

270 OAS Medical Office Emphasis

158 Office Support Specialist (CD)

159 Receptionist (CD)

150 Small Business Mgt. (C)

290 Wooden Boat Building (AAS)

### Information Technology

116 Computer Aided Design (C)

243 Computer Information Systems (AAS)

162 Computer Information Systems (C)

282 Computer Networking (AAS)

182 Computer Networking Administrator (C)

238 Computer Support Specialist (AAS)

148 Computer Support Specialist (C)

236 Geographic Information Systems (AAS)

### Human Services/Social Sciences

127 Corrections (State) (CD)

225 Criminal Justice (AAS)

226 CJ - Law Enforcement w/ NMC (AAS)

227 CJ - Law Enforcement w/ KCC (AAS)

125 Law Enforcement Aide (C)

280 Early Childhood Education (AAS)

276 Legal Assistant (AAS)

177 Legal Assistant (CD)

### Health Sciences/Allied Health

197 Certified Nurse Aide (CD)

253 EMS/Paramedic (AAS)

153 EMS/Paramedic (C)

152 EMS/Basic (CD)

053 EMT (non-degree)

180 Medical Assistant (C)

179 Medical Billing and Coding (CD)

163 Medical Transcriptionist (C)

256 Nursing (AAS)

178 Phlebotomy Technician (CD)

258 Surgical Technologist (AAS)

183 Surgical Technologist (C)

### Natural Sciences

147 Grape Growing and Wine Making (CD)

246 Viticulture and Enology (AAS)

146 Viticulture and Enology (C)

247 Landscape & Nursery or Applied Plant  
Science w/ MSU (AAS)

# **ART and COMMUNICATIONS**

## 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.

<b>General Education Requirements</b>	<b>6 Credit Hours</b>
ENG 111 English Composition I	3
COM 111 Speech	3

<b>Program Requirements</b>	<b>12 credit hours</b>
ART 102 Three-dimensional Design	3
ART 109 Basic Drawing and Composition	3

**Choose 3 credits from the following courses:**

ART 100 Two-Dimensional Design	3
ART 101 Color Theory	3

**Choose 3 credits from the following courses:**

ART 105 Art History I	3
ART 106 Art History II	3
ART 115 History of Non-Western Art	3
ART 117 History of Modern Art	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 Introduction to Jewelry	3
ART 199 Survey of Glass Techniques	3
ART 230 Surface Design for Textiles	3
ART 231 Introduction to Weaving	3
ART 232 Advanced Weaving	3
ART 235 Dye Intensive	3
ART 236 Natural Dye Intensive	3
ART 238 Digital Imaging for Textiles	3
ART 226 How We Felt	1
ART 227 Indigo Loves Shibori	1
ART 228 Soy Wax to the Max	1
ART 229 Deconstructed Screen Printing	1
ART 234 Dyeing to Weave	3
ART 240 Jewelry II	3
ART 242 Jewelry III	3
ART 244 Jewelry IV	3
ART 245 The Business of Art	3
ART 290 Portfolio Development	1

**or**

**Choose 12 credits from the following courses for a Studio Art Concentration (133):**

ART 112 Watercolors I	3
ART 114 Oil Painting I	3
ART 118 Oil Painting II	3
ART 141 Pastel Landscape Painting	3
ART 201 Printmaking	3
ART 212 Life Drawing	3
ART 213 Type and Image	3
ART 218 Watercolors II	3
ART 219 Watercolors III	3
ART 222 Oil Painting III	3
ART 223 Oil Painting IV	3
ART 245 The Business of Art	3
ART 290 Portfolio Development	1

## Communications

### Certificate

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

**Associate Dean: Samantha McLin**

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

<b>Program Requirements</b>	<b>33 Credit Hours</b>
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 <b>or</b>	3
SOC 171 Introduction to Sociology	3
M 205 Principles of Selling	3
COM 105 Mass Media	3
<b>Electives (choose one of the following)</b>	<b>3</b>
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

## Graphic Arts

### Certificate of Development

**Program Code: 113      Credit Hours: 22      Contact Hours: 22**

**Associate Dean: 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 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



## 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 3 credits from 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 3 credits from the following:**

ART 101 Color Theory	3
ART 100 Two Dimensional Design	3

**Choose 3 credits from the following:**

ART 109 Basic Drawing and Composition	3
ART 102 Three Dimensional Design	3

#### TEXTILES CORE

**Choose 12 credits from 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 232 Advanced Weaving	3
ART 235 Dye Intensive	3
ART 236 Natural Dye Intensive	3
ART 226 How We Felt	1
ART 227 Indigo Loves Shibori	1
ART 228 Soy Wax to the Max	1
ART 229 Deconstructed Screen Printing	1
ART 234 Dyeing to Weave	3
ART 238 Digital Imaging for Textiles	3
ART 245 The Business of Art	3
ART 290 Portfolio Development	1

#### 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)

*Students attending part-time should consult with an academic advisor or art program coordinator for a recommendation regarding sequencing of courses.*

# **BUSINESS ADMINISTRATION**

# Accounting

## Associate of Applied Science

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

**Associate Dean: Peter Olson**

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 MATH 110 will also meet this requirement.

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

### General Education Requirements      12-13 Credit Hours

ENG 111 English Composition I	3
ENG 112 English Composition II	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
B 104 Business Math <b>or</b>	3
MATH 100 Mathematical Reasoning <b>or</b>	4
MATH 110 Beg-Int. Algebra (Part I) <b>or higher</b>	4

### Program Requirements      40 Credit Hours

B 113 Computer Assisted Accounting	3
B 207 Business Communications	3
B 211 Accounting Principles I	4
B 212 Accounting Principles II	4
B 213 Intermediate Accounting I	4
B 214 Intermediate Accounting II	4
B 216 Federal Taxation I	3
B 218 Cost Accounting I	3
B 290 Business Law I <b>or</b>	
B 291 Business Law II	3
ECO 111 Macroeconomics <b>or</b>	3
ECO 112 Microeconomics	3
M 200 Introduction to Marketing	3
OAS 252 Microsoft Office for Windows	3

### Additional Requirements      7-8 Credit Hours

Select courses from the following list to satisfy the remaining 5-11 credit hours of program requirements:

B 104 Business Math	3
B 161 Introduction to Business	3
B 200 Principles of Management	3
B 290 Business Law I	3
B 291 Business Law II	3
CAP 125 MS Excel	3
CAP 130 MS Access	3
CAP 135 Web Page Design	3
ECO 111 Macroeconomics <b>or</b>	3
ECO 112 Microeconomics	3
OAS 101 Customer Service	1
OAS 121 Keyboarding I	2
OAS 190 Employability Skills	1
PSY 161 Introduction to Psychology	3

**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 MATH 100 or MATH 110 (or higher)  
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: Peter Olson**

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

<b>Program Requirements</b>	<b>29 Credit Hours</b>
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 <b>or</b>	3
B 291 Business Law II	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
ENG 111 English Composition I	3
OAS 121 Computer Keyboarding/Software Fundamentals <b>or</b>	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 165 Small Business Essentials	3
CAP Any Computer Applications course	3
B 285 Work-Based Learning-Business	1-4

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

## Advertising Assistant

### Certificate

**Program Code: 110**

**Credit Hours: 30 Contact Hours: 30**

**Associate Dean: Pete Olson**

**Faculty Contact: Chet Jessick**

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

<b>Program Requirements</b>	<b>21 Credit Hours</b>
ART 109 Basic Drawing and Composition	3
COM 111 Speech <b>or</b>	3
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

<b>Additional Requirements</b>	<b>9 Credit Hours</b>
Select courses from the following list to satisfy the remaining 9 credit hours of program requirements:	
B 161 Introduction to Business	3
B 165 Small Business Essentials	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

## Business Development

### Certificate of Development

**Program Code: 119      Credit Hours: 16      Contact Hours: 16**

**Associate Dean: Peter Olson**

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 the student with basic small business expertise with the goal of either employability or the ability to start one's own business. able 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

#### 16 Credit Hours

B 103 Basic Business Methods	3
B 110 Business Communication Essentials	3
CAP 100 Computers for the Very Beginner	1
CAP 102 Web Design for Beginners	1
ENT 120 Financing an Entrepreneurial Business	1
ENT 125 Legal Issues for Entrepreneurs	1
ENT 130 Tax Law and Policy	1
OAS 101 Customer Service	1
OAS 190 Employability Skills	1
OAS 252 MS Office	3

#### Suggested Sequence for Full-Time Students

##### Semester I (Fall)

CAP 100  
CAP 102  
ENT 120  
ENT 125

##### Semester II (Winter)

B 103  
B 110  
ENT 130  
OAS 101  
OAS 190  
OAS 252



## Business Management

### Associate of Applied Science

**Program Code: 220      Credit Hours: 60      Contact Hours: 60-61**

**Associate Dean: Peter Olson      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 MATH 110 will also meet this requirement.

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

<b>General Education Requirements</b>	<b>12-13</b>	<b>Credit Hours</b>
ENG 111 English Composition I		3
ENG 112 English Composition II		3
COM 111 Speech <b>or</b>		3
COM 170 Interpersonal Communication		3
B 104 Business Math <b>or</b>		3
MATH 100 Mathematical Reasoning <b>or</b>		4
MATH 110 Beg-Int. Algebra (Part I) <b>or higher</b>		4

<b>Program Requirements</b>	<b>38</b>	<b>Credit Hours</b>
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 <b>or</b>		3
B 291 Business Law II		3
ECO 111 Macroeconomics <b>or</b>		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

<b>Electives</b>	<b>9-10</b>	<b>Credit Hours</b>
B 113 Computerized Accounting		3
B 165 Small Business Essentials		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 <b>or</b>		3
CIS 115 C++ Programming I		3
ECO 111 Macroeconomics <b>or</b>		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
B 152 Leadership Essentials	4
B 222 Leadership Development I	4
B 232 Leadership Development II	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 MATH 100 or MATH 110 (or higher)

**Semester III (Fall)**

B 201  
 B 290 or 291  
 COM 111 or 170  
 M 205  
 ECO 111 or 112

**Semester II (Winter)**

B 200  
 B 212  
 ENG 112  
 OAS 252

**Semester IV (Winter)**

B 207  
 M 220  
 Electives  
 Electives

## Entrepreneurship

### Certificate

**Program Code: 151      Credit Hours: 31-32      Contact Hours: 31-32**

**Associate Dean: Peter Olson**

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.

<b>Program Requirements</b>	<b>31-32 Credit Hours</b>
B 104 Business Math	3
B 111 Accounting Procedures <b>or</b>	3
B 211 Accounting Principles I	4
B 113 Computerized Accounting	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
M 200 Introduction to Marketing	3
OAS 101 Customer Service	1
ENG 111 English Composition I	3
ENT 110 Essentials of Entrepreneurship	3
ENT 120 Financing an Entrepreneurial Business	1
ENT 125 Legal Issues for Entrepreneurs	1
ENT 130 Tax Law and Policy	1
ENT 135 Human Resource Issues in Entrepreneurship	1
ENT 140 Technology and Entrepreneurship	1
ENT 145 Advertising and the Entrepreneur	1
ENT 170 Creative Blockbusting and Problem Solving	3

### 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: Peter Olson**

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.

<b>Program Requirements</b>	<b>16 Credit Hours</b>
B 111 Accounting Procedures	3
ENT 110 Essentials of Entrepreneurship	3
ENT 120 Financing an Entrepreneurial Business	1
ENT 125 Legal Issues for Entrepreneurs	1
ENT 130 Tax Law and Policy	1
ENT 135 Human Resource Issues in Entrepreneurship	1
ENT 140 Technology and Entrepreneurship	1
ENT 145 Advertising and the Entrepreneur	1
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	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

## **General Office Professional Certificate**

**Program Code: 165      Credit Hours: 30-31    Contact Hours: 30-31**  
**Associate Dean: Peter Olson      Faculty Contact: Jane Bowe**

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.

<b>Program Requirements</b>	<b>30-31 Credit Hours</b>
B 104 Business Math	3
B 111 Accounting Procedures	3
CAP 125 MS Excel <b>or</b>	3
OAS 224 Transcription/Editing	4
ENG 111 English Composition 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 241 Administrative Procedures	3
OAS 252 Microsoft Office for Windows	3
OAS 254 Desktop Publishing for the Office	2

### **Suggested Sequence for Full-Time Students**

<b>Semester I (Fall)</b>	<b>Semester II (Winter)</b>
B 104	ENG 111
B 111	OAS 101
OAS 141	OAS 122
OAS 190	OAS 223
OAS 224 or CAP 125	OAS 241
OAS 254	OAS 252

# Hospitality and Casino Management

## Associate of Applied Science

**Program Code: 218      Credit Hours: 60-61      Contact Hours: 60-61**

**Associate Dean: Peter Olson**

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 <b>or</b>	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 <b>or</b>	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

<b>General Electives</b>	6
<b>Social Science Electives</b>	6
<b>HTM Hospitality Management Electives</b>	15

### General Electives      (choose 6 credit hours)

B 201 Human Resource Management	3
B 212 Accounting Principles II	4
B 290 Business Law I <b>or</b>	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: Peter Olson**

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.

<b>Program Requirements</b>	<b>19-20 Credit Hours</b>
B 104 Business Math	3
B 111 Accounting Procedures <b>or</b>	3
B 211 Accounting Principles I	4
B 161 Introduction to Business	3
COM 111 Speech <b>or</b>	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**

<b>Electives</b>	<b>(choose 12 credit hours)</b>
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 161  
 COM 111 or 170  
 OAS 101  
 OAS 252  
 HTM elective

#### **Semester II (Winter)**

B 104  
 B 111 **or** B 211  
 ENG 111  
 HTM elective  
 HTM elective  
 HTM elective



## **Hospitality and Hotel**

### **Certificate of Development**

**Program Code: 117      Credit Hours: 19-20**

**Contact Hours: 19-20**

**Associate Dean: Peter Olson**

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**

#### **19-20 Credit Hours**

B 111 Accounting Procedures <b>or</b>	3
B 211 Principles of Accounting I	4
COM 170 Interpersonal Communications	3
HTM 121 Introduction to the Hospitality Industry	3
HTM 130 Food and Beverage Management	3
HTM 232 Hospitality Law and Ethics	3
OAS 101 Customer Service	1
OAS 252 Microsoft Office	3

## Management

### Certificate

**Program Code: 149**

**Credit Hours: 31-32**

**Contact Hours: 31-32**

**Associate Dean: Peter Olson**

**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

#### 31-32 Credit Hours

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

#### 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

## Marketing

### Associate of Applied Science

**Program Code: 245      Credit Hours: 60      Contact Hours: 60**

**Associate Dean: Peter Olson      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 MATH 110 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
MATH 100 Mathematical Reasoning	or	4
MATH 110 Beg-Int. Algebra (Part I)	or higher	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

#### 40 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

#### 7-8 Credit Hours

Select courses from the following list to satisfy the remaining 7-8 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  
ECO 111 or ECO 112  
ENG 111  
M 200  
B 104 or MATH 100 or MATH 110 (or higher)

**Semester II (Winter)**

COM 111 or COM 170  
ENG 112  
M 202  
B 290 or B 291  
B 161

**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: Peter Olson**

**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

COM 111 Speech <b>or</b>	3
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 204 Retailing and Services Management	3
M 205 Principles of Selling: The Relationship and Leadership Edge	3
OAS 252 Microsoft Office for Windows	3
M 285* Work-Based Learning-Marketing	2

\* 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:

B 161 Introduction to Business	3
B 165 Small Business Essentials	3
B 207 Business Communication	3
B 290 Business Law I <b>or</b>	3
B 291 Business Law II	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
M 220 Marketing and Management Strategy	3
MATH 130 College Algebra	4
STAT 200 Statistics	3

#### Suggested Sequence for Full-Time Students

##### Semester I (Fall)

ENG 111  
COM 111 or 170  
M 200  
M 204  
M 205  
OAS 252

##### Semester II (Winter)

ENG 112  
B 161  
M 202  
Additional Requirements

## Microsoft Office Specialist

### Certificate of Development

**Program Code: 109      Credit hours: 17      Contact hours: 17**

**Associate Dean: Peter Olson      Faculty Contact: Jane Bowe**

This certificate of development is designed to provide expertise in the Microsoft Office Suite and to prepare students for the Microsoft Office Specialist (MOS) certification exams. Virtually every occupational area requires strong core skills in computer operations and certification will enhance other programs of study as well as provide stand-alone career and technical education foundations. This versatile certificate will provide students with the opportunity to strengthen existing competencies and/or begin the learning sequence of Microsoft and related skills.

Information on the MOS certification exam can be viewed at  
<http://www.microsoft.com/learning/en/us/certification/mos.aspx>

<b>Program Requirements</b>		<b>17 Credit Hours</b>
CAP 125	Microsoft Excel	3
CAP 130	Microsoft Access	3
OAS 242	Office Technology	3
OAS 252	Microsoft Office	3
OAS 253	Microsoft Word	3
OAS 254	Desktop Publishing	2

### **Suggested Sequence for Full-Time Students**

#### **Semester I (Fall)**

OAS 242  
 OAS 254  
 OAS 252

#### **Semester II (Winter)**

CAP 125  
 CAP 130  
 OAS 253

## **New Media**

### **Certificate of Development**

**Program Code: 111**

**Credit Hours: 16 Contact Hours: 16**

**Associate Dean: Peter Olson**

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.

#### **Program Requirements**

#### **16 Credit Hours**

CAP 135 Web Page Design	3
CAP 140 Introduction to Adobe Photoshop	3
CAP 160 Introduction to Digital Audio/Video	3
CAP 210 Advanced Web Page Design	3
CAP 215 Advanced Digital Audio/Video	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

## Office Administrative Services

### Associate of Applied Science

**Program Code: 277      Credit Hours: 60      Contact Hours: 60-61**

**Associate Dean: Peter Olson**

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

<b>General Education Requirements</b>	<b>12-14 Credit Hours</b>
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

<b>Program Requirements</b>	<b>40-41 Credit Hours</b>
B 104 Business Math	3
B 111 Accounting Procedures <b>or</b>	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 122 has a prerequisite of OAS 121 or equivalent.

<b>Additional Requirements</b>	<b>5-8 Credit Hours</b>
Choose from the following list:	
B 113 Computer Assisted Accounting	3



B 200 Principles of Management	3
B 290 Business Law I <b>or</b>	3
B 291 Business Law II	3
CAP 135 Web Page Design	3
OAS 121 Keyboarding and Software Fundamentals	3
OAS 285 Work-Based Learning-OAS***	1-2

\*\*\* If OAS 285 is not offered, see your program coordinator.

**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

## Office Support Specialist

### Certificate of Development

**Program Code: 158      Credit Hours: 16      Contact Hours: 16**

**Associate Dean: Peter Olson**

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.

<b>Program Requirements</b>	<b>16 Credit Hours</b>
B 111 Accounting Procedures or	3
OAS 122 Document Processing I	3
ENG 111 English Composition I	3
OAS 101 Customer Service	1
OAS 121 Keyboarding & Software Fundamentals	3
OAS 141 Filing and Records Management	2
OAS 190 Employability Skills	1
OAS 252 Microsoft Office for Windows	3

## Receptionist

### Certificate of Development

**Program Code: 159      Credit Hours: 16      Contact Hours: 16**

**Associate Dean: Peter Olson**

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

<b>Program Requirements</b>	<b>16 Credit Hours</b>
ENG 111 English Composition 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 241 Administrative Procedures	3

## **Small Business Management Certificate**

**Program Code: 150      Credit Hours: 33-34      Contact Hours: 33-34**  
**Associate Dean: Peter Olson      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.

<b>Program Requirements</b>	<b>33-34 Credit Hours</b>
B 104 Business Math	3
B 165 Small Business Essentials	3
B 200 Principles of Management	3
B 111 Accounting Procedures <b>or</b>	3
B 211 Accounting Principles I	4
B 290 Business Law I <b>or</b>	3
B 291 Business Law II	3
ENG 111 English Composition I	3
ENT 110 Essentials of Entrepreneurship	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 104  
M 204  
ENT 110

#### **Semester II (Winter)**

M 200  
M 205  
B 165  
B 200  
B 290 **or** B 291  
OAS 252

# Wooden Boat Building

## Associate of Applied Science

**Program Code: 290      Credit Hours: 66      Contact Hours: 66**

**Associate Dean: Peter Olson**

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](http://www.greatlakesboatbuilding.org).

### Program Requirements

**66 Credit Hours**

#### NCMC Course Requirements

**28 Credit Hours**

ART 102 Three-Dimensional Design	3
ART 109 Basic Drawing & Composition	3
MATH 100 Mathematical Reasoning	4
B 161 Introduction to Business	3
CIS 100 Introduction to Computers	3
COM 170 Interpersonal Communication	3
ENG 111 English Composition I	3
ENG 112 English Composition II	3
ENGR 107 Engineering Graphics	3

#### Electives (choose 6 credits from the following)

B 111 Accounting Procedures	3
B 165 Small Business Essentials	3
B 200 Principles of Management	3
ENT 110 Essentials of Entrepreneurship	3
M 200 Introduction to Marketing	3
PHO 100 Basic Photography	3
TDT 130 CAD I	3
TDT 132 CAD III	3
TDT 140 Architectural CAD	3
TDT 150 Mechanical CAD	3

**NCMC Total 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**

## Computer-Aided Design

### Certificate

**Program Code: 116      Credit Hours: 30-31      Contact Hours: 30-32**

**Associate Dean: Peter Olson**

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 draftsman.

<b>Program Requirements</b>	<b>27-28 Credit Hours</b>
CAP 125 MS Excel <b>or</b>	3
CAP 130 MS Access	3
CIS 100 Introduction to Computers	3
ENG 111 English Composition I	3
ENGR 107 Engineering Graphics	3
MATH 110 Beg-Int. Algebra (Part I)	4
TDT 130 Introduction to CAD	3
TDT 132 Advanced CAD	3
TDT 140 Architectural CAD <b>or</b>	3
TDT 150 Mechanical CAD	3
Choose from one of the following	2-3
CAP 135, CIS 104, CIS 105, CIS 140, IT 102	
<b>Electives (choose one course from the following)</b>	<b>3</b>
ARC 110 Elements of Architecture	3
ART 105 Art History I	3
ART 106 Art History II	3
B 161 Introduction to Business	3
B 207 Business Communication	3
CIS 120 PC Operating Systems	3
COM 111 Speech	3
COM 170 Interpersonal Communications	3
TDT 140 Architectural CAD	3
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  
MATH 110  
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: Peter Olson      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.

<b>General Education Requirements</b>	<b>16 Credit Hours</b>
COM 170 Interpersonal Communication	3
ENG 111 English Composition I	3
ENG 112 English Composition II	3
MATH 110 Beg-Int. Algebra (Part I)	4
PLS 141 Introduction to American Government	3

<b>Program Requirements</b>	<b>40 Credit Hours</b>
CIS 100 Introduction to Computers	3
CIS 104 Introduction to Programming Logic	3
CIS 105 Visual BASIC Programming I	3
CIS 115 C++ Programming I	3
CIS 120 PC Operating System I	3
CIS 140 Introduction to Linux/Unix	3
CIS 145 ePortal Development	3
CIS 150 Introduction to Database Administration	3
CIS 205 C++ Programming II	3
CIS 215 Database Design and Management	3
CIS 220 Visual BASIC Programming II	3
IT 101 Network +	3
IT 102 Networking Essentials	2
IT 112 Microsoft Windows Workstations	2

<b>Additional Requirements</b>	<b>4 Credit Hours</b>
Select courses from the following list to satisfy the remaining 4 credit hours of program requirements:	
CAP 135 Web Page Design	3
CIS 225 Introduction to Java Programming I	3
CIS 240 Linux/Unix System Administration	3
CIS 297 Special Topics in CIS	1-5
IT 130 Windows Network Infrastructure	2.5
OAS 190 Employability Skills	1
CIS 280 Internship/Special Projects	3
IT 161 Introductory Digital Logic	2
IT 122 Microsoft Windows Server	2

**Suggested Sequence for Full-Time Students**

**Semester I (Fall)**

ENG 111  
 CIS 100  
 CIS 104  
 COM 170  
 PLS 141

**Semester II (Winter)**

CIS 105  
 CIS 115  
 CIS 215  
 ENG 112  
 MATH 110

**Semester III (Fall)**

CIS 150  
 CIS 140  
 CIS 205  
 CIS 220  
 IT 102

**Semester IV (Winter)**

CIS 120  
 CIS 145  
 IT 101  
 IT 122  
 Additional Requirements

**Computer Information Systems**

**Certificate**

**Program Code: 162      Credit Hours: 33      Contact Hours: 38**  
**Associate Dean: Peter Olson      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**

CIS 100 Introduction to Computers	3
CIS 104 Introduction to Programming Logic	3
CIS 105 Visual BASIC Programming I	3
CIS 115 C++ Programming	3
CIS 120 PC Operating System	3
CIS 145 ePortal Development	3
CIS 215 Database Design and Management	3
COM 170 Interpersonal Communication	3
IT 101 Network +	3
IT 102 Networking Essentials	2
MATH 110 Beg-Int. Algebra (Part I)	4

**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  
 MATH 110  
 IT 101

**Semester III (Fall)**

CIS 120  
 COM 170



## Computer Networking

### Associate of Applied Science

**Program Code: 282      Credit Hours: 60-61      Contact Hours: 61-64**

**Associate Dean: Peter Olson      Faculty Contact: Fred Harrington**

North Central's Associate of Applied Science in Computer Networking provides students with both academic study and hands-on experience along with the opportunity for Microsoft certifications. 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 Technology Associate (MTA) up to Microsoft Certified IT Professional (MCITP).

Program requirements may be waived with documented equivalent vendor certifications (e.g., Net+, MCSA, CNE, MCP, CCNA), for all IT courses below IT 200, with advisor approval. Any 100-level or higher course may be used to meet the 60-credit minimum requirement for a certificate if any program requirements are waived.

Open Entry/Self-Paced: North Central offers computer networking courses in an open-entry (OE) self-paced format. This format enables students to start courses after the normal semester and work at a pace agreed upon by the student and the instructor. Open lab time is scheduled for daytime and evening access to facilitate student work schedules. The College's networking lab is designed for networking activities using routers, switches, multiple servers and multiple operating systems in hard box and virtual environments.

#### General Education Requirements

#### 10 Credit Hours

ENG 111 English Composition I	3
ENG 112 English Composition II	3
COM Any COM course	3
OAS 190 Employability Skills	1

#### Program Requirements

#### 34 Credit Hours

CIS 100 Introduction to Computers	3
CIS 104 Intro Programming Logic	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 161 *OE Introductory Digital Logic	2
IT 221 *OE Designing Windows Networks	6
IT 222 Network Security Fundamentals	3

#### Additional Program Requirements

#### 10 Credit Hours

Select 6 credits from any CIS courses (excluding CIS 100, 104, 140)	6
IT 270 *OE Capstone Project <b>OR</b>	4
IT 280 Internship / Project	4

#### Program Electives

#### 6 Credit Hours

Any courses numbered 100 or higher	6
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**\*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 12<sup>th</sup> 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  
CIS Elective  
CIS Elective  
CIS 140

#### **Semester III (Fall)**

CIS 104  
IT 221  
OAS 190  
Any elective

#### **Semester IV (Winter)**

IT 222  
IT 161  
IT 270 or 280  
Any elective  
COM course

## Computer Networking Administrator Certificate

**Program Code: 182      Credit Hours: 30-31      Contact Hours: 30-31**  
**Associate Dean: Peter Olson      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.

<b>Program Requirements</b>	<b>30-31 Credit Hours</b>
B 104 Business Math <b>or</b>	3
MATH 100 Mathematical Reasoning or higher	4
CIS 100 Introduction to Computers	3
Any COM course	3
ENG 111 English Composition I	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 131* OE Windows Web Server	1.5
IT 141* OE Managing Windows Networks	4
OAS 190 Employability Skills	1

**\*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 12<sup>th</sup> 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 MATH 100 or higher  
 OAS 190

## Computer Support Specialist

### Associate of Applied Science

**Program Code: 238      Credit Hours: 60-61      Contact Hours: 61-62**

**Associate Dean: Peter Olson      Faculty Contact: Fred Harrington**

North Central's Computer Support Specialist Associate of Applied Science provides students with both the academic study and hands-on experience necessary to succeed in the information computing technology support field. The course content provides the student with the foundation knowledge and skills needed to pass the Internet and Computing Core Certification (IC-3®), CompTIA A+ certification exams as well as the Core level Microsoft Technology Associate (MTA) Fundamental examinations and some of the Microsoft Office Specialist (MOS) certification exams. Students completing the Computer Support Specialist Associate of Applied Science Degree program are qualified for employment as help desk technicians, computer support technicians, and computer applications specialists. To earn this North Central Degree the student must pass the IC-3, and the MTA Fundamental Networking and Security examinations and the CompTIA A+ certification examination.

#### General Education Requirements

#### 15-16 Credit Hours

ENG 111 English Composition I	3
ENG 112 English Composition II	3
B 104 Business Math <b>or</b>	3
MATH 100 Mathematical Reasoning <b>or</b> higher	4
Any COM course	3
Any Social Science course	3

#### Program Requirements

#### 35 Credit Hours

CAP 135 Web Page Design	3
CIS 100 Introduction to Computing	3
CIS 104 Intro to Program Logic	3
CIS 120 PC Operating Systems I	3
CIS 140 Introduction to Unix	3
IT 101 *Network+	3
IT 112 *Windows Workstations	2
IT 199 *Help Desk Internship	4
IT 222 *Network Security Fundamentals	3
IT 280 Internship	4
OAS 190 Employability Skills	1
OAS 252 MS Office for Windows	3

#### Additional Requirements

#### 9-10 Credit Hours

Select 10 credits from any CIS, IT or OAS courses not listed above      9-10

**\*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 12<sup>th</sup> 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)**

B 104 or MATH 100 or higher  
CIS 100  
ENG 111  
IT 101  
Elective

**Semester II (Winter)**

ENG 112  
IT 112  
IT 199  
OAS 252  
Elective

**Semester III (Fall)**

CAP 135  
CIS 104  
CIS 140  
OAS 190  
Any COM class  
Elective

**Semester IV (Winter)**

CIS 120  
IT 222  
IT 280  
Any Social Science class

## Computer Support Specialist Certificate

**Program Code: 148      Credit Hours: 30-31      Contact Hours: 31-32**  
**Associate Dean: Peter Olson      Faculty Contact: Fred Harrington**

North Central's Computer Support Specialist Certificate is a good starting point for students desiring an entry level job in the information computing technology support field. The courses provide the student with the foundation knowledge and skills needed to pass the Internet and Computing Core Certification (IC-3®) examination as well as the Core level Microsoft Technology Associate (MTA) Fundamental Networking and Security examinations. Students completing the Computer Support Specialist Certificate are qualified for employment as help desk technicians and have a good start towards the Computer Support Specialist Associate of Applied Science. To earn this North Central Certificate the student must pass the IC-3, and the MTA Fundamental Networking and Security examinations.

<b>General Education Requirements</b>	<b>9-10 Credit Hours</b>
ENG 111 English Composition I	3
B 104 Business Math <b>or</b> any MATH course 100 <b>or</b> above	3 <b>or</b> 4
Any COM course	3

<b>Program Requirements</b>	<b>21 Credit Hours</b>
CIS 100 Introduction to Computing	3
CIS 120 PC Operating Systems I	3
IT 101 *Network+	3
IT 112 *Windows Workstations	2
IT 199 *Help Desk Internship	4
IT 222 *Network Security Fundamentals	3
OAS 252 MS Office for Windows	3

**\*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 12<sup>th</sup> 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**

<b>Semester I (Fall)</b>	<b>Semester II (Winter)</b>
B 104 or other MATH course	CIS 120
CIS 100	OAS 252
ENG 111	IT 222
IT 101	IT 199
IT 112	Any COM class

## Geographic Information Systems

### Associate of Applied Science

**Program Code: 236      Credit Hours: 61-62**

**Contact Hours: 68-72**

**Associate Dean: Peter Olson**

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

ENG 111 English Composition I	3
ENG 112 English Composition II	3
PLS 141 Introduction to American Government	3
COM 111 Speech <b>or</b> COM 170 Interpersonal Communication	3

#### Program Requirements

#### 39-40 Credit Hours

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

#### Additional Requirements

#### 9 Credit Hours

TDT 130 CAD I	3
TDT 132 CAD III (Advanced AutoCAD)	3
CIS 115 C++ Programming I	3
CIS 215 Database Design and Management	3
CIS 105 Visual Basic Programming I	3
CIS 225 Introduction to Java Programming I	3
PLS 225 Citizen Politics at Local Level	3
BIO 220 Natural Resource Management	3
BIO 265 Environmental Biology	3
M 200 Introduction to Marketing	3
M 220 Marketing and Management Strategy	3
CAP 135 Web Page Design	3
CAP 210 Advanced Web Page Design	3
B 200 Principles of Management	3
B 201 Human Resource Management	3

# **HUMAN SERVICES/SOCIAL SCIENCES**



## Early Childhood Education

### Associate of Applied Science

**Program Code: 280      Credit Hours: 60-61      Contact Hours: 61-63**

**Coordinator: Jo-Anna Kolodziej**

The Early Childhood Education Associate of Applied Science program prepares students for immediate entry into the workforce educating and caring for young children in a variety of settings. Graduates are prepared to teach in Head Start programs, preschools, childcare centers, and primary grade classrooms as instructional aides. Graduates are also prepared to be child care center directors. Early Childhood Education professionals have specialized training in the care and education of children birth to age eight.

This degree also prepares students for transfer to baccalaureate programs in early childhood education in human services AND elementary teacher education with a major or minor in early childhood education (Elementary Teacher Certification Option II). This degree allows students to complete their MACRAO agreement for general education coursework and transfer into Baccalaureate programs in early childhood education, family life studies, social work, and elementary education option II. Upon graduation, students will have approximately 200 hours of combined observation and participation experience in early childhood classrooms.

Early Childhood Education students will need to have transportation to and from field placements, meet state licensing health and safety requirements for adults working with children in early childhood classrooms, pass a background check, and perform within the guidelines of the participating agencies during field placements in ECE 282 Practicum/Seminar. Students are required to meet with the Early Childhood Education Program Coordinator for the required paperwork and program audit prior to enrollment in ECE 282 Practicum.

A Baccalaureate in Early Childhood Education is available through Lake Superior State University on the campus of North Central Michigan College. A list of required courses, which includes the NCMC AAS ECE degree, is provided on a curriculum guide sheet. Students can contact the Early Childhood Education Coordinator (231) 439-6224, LSSU's Petoskey office at (231)348-6623, or Student Services (231) 348-6605, for the LSSU B.S. curriculum guide sheet.

A Baccalaureate in Elementary Education with a minor in early childhood education is available through Spring Arbor University on the campus of North Central Michigan College. A list of required prerequisites, incorporating the NCMC ECE AAS degree, is available through the Spring Arbor University Center office at (231) 439-6203, the NCMC Early Childhood Education Program Coordinator (231) 439-6224, or Student Services (231) 348-6605.

#### General Education Requirements

		<b>26 Credit Hours</b>
ENG 111	English Composition I	3
ENG 112	English Composition II	3
COM 111	Speech	3
PSY 161	Intro to Psychology (elementary teacher certification) <b>or</b>	3
SOC 171	Intro to Sociology (human services)	3
BIO 101	Intro to Biology with lab (elementary teacher certification) <b>or</b>	4
BIO 133	Human Biology with lab (human services)	4
Lab Science course from CEM, ESC, PHY <b>or</b>		
4 credits MATH 112 or MATH 120 or higher		4
Art 105 <b>or</b> 106		3
MU 120		3

#### Program Requirements

		<b>34-35 Credit Hours</b>
ECE 200	Foundations of Early Childhood Education	3
ECE 205	Curriculum and Methods	3
ECE 210	Infants and Toddlers	3

ECE 215	Child Guidance and Communication Skills	3
ECE 220	Children with Special Needs	3
ECE 225	Administration of Early Childhood Programs	3
ECE 282	Practicum/Seminar	7
EMS 101*	First Aid/CPR or current certification	0-1
ENG 240	Children's Literature	3
PSY 255	Child Psychology	3
SOC 271	Marriage and Family	3

\*Course may be waived (requirements met, but course credit not given) if the student presents documentation of current First Aid and CPR certifications.

Prior to enrolling in ECE 282 Practicum/ Seminar, students are required to meet with the ECE Program Coordinator for required field placement forms and a program audit.

**Suggested Sequence for Full time Students:**

<b>Semester I (Fall)</b>	<b>Semester II (Winter)</b>	<b>Semester III (Fall)</b>	<b>Semester IV (Winter)</b>
ENG 111	ENG 112	ENG 240	EMS 101
PSY 161 or SOC 171	PSY 255	MU 120	ART 105 or 106
COM 111	BIO 101 or 133	ECE 210	SOC 271
ECE 200	ECE 205	ECE 225	ECE 282
ECE 215	ECE 220	Lab SCI <b>or</b> MATH 112 <b>or</b> 120 (or higher)	

## Criminal Justice

### Associate of Applied Science

**Program Code: 225      Credit Hours: 60      Contact Hours: 60**

**Coordinator: Catherine Castagne**

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.

#### General Education Requirements

#### 15-16 Credit Hours

ENG 111 English Composition I	3
ENG 112 English Composition II	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
B 104 Business Math <b>or</b>	3
MATH 100 Mathematical Reasoning <b>or</b>	4
MATH 110 Beg-Int. Algebra (Part I) <b>or higher</b>	4
PLS 141 American Government	3

#### Program Requirements

#### 36 Credit Hours

CJ 101 Criminology	3
CJ 102 Introduction to Criminal Justice	3
CJ 120 Introduction to Corrections	3
CJ 130 Police Process	3
CJ 202 Criminal Investigation	3
CJ 207 Criminal Law	3
CJ 210 Current Issues in Criminal Justice	3
CJ 217 Criminal Procedures	3
CIS 100 Introduction to Computers	3
PHL 105 Introduction to Ethics <b>or</b>	3
PHL 109 Contemporary Moral Issues	3
PSY 161 Introduction to Psychology	3
SOC 171 Introduction to Sociology	3

#### Electives

#### 8-9 Credit Hours

Any courses numbered 100 or higher

#### Suggested Sequence for Full-Time Students

##### Semester I (Fall)

CJ 102  
CIS 100  
ENG 111  
B 104 **or** MATH 100 **or** MATH 110 or higher  
Elective

##### Semester III (Fall)

CJ 120  
CJ 130  
CJ 207  
PHL 105 **or** PHL 109  
PLS 141

##### Semester II (Winter)

CJ 101  
ENG 112  
PSY 161  
Elective

##### 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: Catherine Castagne**

**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.

#### North Central Michigan College Courses

#### 31 Total NCMC Credit Hours

CIS 100 Introduction to Computers	3
CJ 101 Criminology	3
CJ 102 Introduction to Criminal Justice	3
CJ 120 Introduction to Corrections	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
ENG 111 English Composition I	3
ENG 112 English Composition II	3
MATH 110 Beg-Int. Algebra (Part I)	4
PLS 141 Introduction to American Government	3
PSY 161 Introduction to Psychology	3

#### Northwestern Michigan College Courses

#### 36 Total NMC Credit Hours

LWE 102 Police Operations	4
LWE 210 Cultural Diversity	2
LWE 214 Firearms	4
LWE 218 Physical Training	4
LWE 226 Michigan Criminal Law	3
HAH 200 Emergency Assessment and Intervention	3
LWE 212 Criminal Investigation	3
LWE 215 Defensive Driving	3
LWE 216 Traffic Enforcement	3
LWE 225 Defensive Tactics	4
LWE 227 Criminal Procedure	3

#### 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  
MATH 110  
CIS 100

## Criminal Justice

### Associate of Applied Science in Law Enforcement

**Program Code: 227      Credit Hours: 63      Contact Hours: 63**

**Coordinator: Catherine Castagne**

#### 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.

<b>North Central Michigan College Courses</b>	<b>42 Total NCMC Credit Hours</b>
CIS 100 Introduction to Computers	3
CJ 101 Criminology	3
CJ 102 Introduction to Criminal Justice	3
CJ 120 Introduction to Corrections	3
CJ 130 Police Process	3
CJ 210 Current Issues in Criminal Justice	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
ENG 111 English Composition I	3
ENG 112 English Composition II	3
MATH 110 Beg-Int. Algebra (Part I)	4
PE 116/216 Physical Conditioning	2
PLS 141 Introduction to American Government	3
PSY 161 Introduction to Psychology	3
SOC 171 Introduction to Sociology	3

**Kirtland Community College Police Academy courses (17 weeks)      21 Credit Hours**

#### Suggested Sequence for Full-Time Students at North Central

##### Semester I (Summer)

Starting semester to enter the following July academy  
 CIS 100  
 PSY 161  
 MATH 110

##### Semester II (Fall)

CJ 102  
 CJ 120  
 CJ 130  
 CJ 210  
 ENG 111 **or** 112 \*\*  
 PE 116 or 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 or PE 216 \*  
 PLS 141  
 SOC 171

\*PE 116 must be taken before PE 216

\*\* Depending on the starting semester

## Corrections (State)

### Certificate of Development

**Program Code: 127      Credit Hours: 15      Contact Hours: 15**

**Coordinator: Catherine Castagne**

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.

<b>Program Requirements</b>	<b>15 Credit Hours</b>
CJ 120 Introduction to Corrections	3
<b>Plus a total of 12 credits selected from the following courses:</b>	
CJ 101 Criminology	3
CJ 102 Introduction to Criminal Justice	3
CJ 130 Police Process	3
CJ 202 Criminal Investigation	3
CJ 207 Criminal Law	3
PSY 161 Introduction to Psychology	3
PSY 241 Abnormal Psychology	3
SOC 120 Contemporary Social Problems	3
SOC 171 Introduction to Sociology	3
SOC 208 Juvenile Delinquency	3
SOC 230 Race and Ethnicity	3
SOC 250 Deviant Behavior	3

## Law Enforcement Aide

### Certificate

**Program Code: 125      Credit Hours: 31    Contact Hours: 31**

**Coordinator: Catherine Castagne**

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.

<b>Program Requirements</b>	<b>31 Credit Hours</b>
B 104 Business Math	3
CAP 101 Internet Searching and Researching	1
CJ 101 Criminology	3
CJ 102 Introduction to Criminal Justice	3
COM 170 Interpersonal Communication	3
ENG 111 English Composition I	3
OAS 101 Customer Service	1
OAS 121 Keyboarding <b>or</b>	3
OAS 122* Document Processing I	3
OAS 141 Filing and Records Management	2
OAS 241 Administrative Procedures	3
OAS 252 Microsoft Office for Windows	3
OAS 285** Work-Based Learning – OAS	3

\* 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  
OAS 285

## Legal Assistant

### Associate of Applied Science

**Program Code: 276      Credit Hours: 65      Contact Hours: 65**

**Coordinator: Catherine Castagne**

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.

<b>General Education Requirements</b>	<b>16 Credit Hours</b>
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
ENG 111 English Composition I	3
ENG 112 English Composition II	3
MATH 112 Beg-Int. Algebra (Part I) <b>or</b>	4
MATH 120 Intermediate Algebra	4
PLS 141 Introduction to American Government	3

<b>Program Requirements</b>	<b>49 Credit Hours</b>
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 <b>or</b>	3
PHL 102 Introduction to Logic	3
PSY 161 Introduction to Psychology <b>or</b>	3
SOC 171 Introduction to Sociology	3
<b>Total Credit Hours</b>	<b>65</b>

### 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 111 **or** COM 170  
ENG 112  
LA 202  
LA 203  
MATH 112 **or** MATH 120  
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: Catherine Castagne**

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**

B 111 Accounting Procedures **or**  
B 211 Accounting Principles I  
ENG 111 English Composition I  
ENG 112 English Composition II  
LA 200 Law Office Management and Ethics  
LA 201 Research Writing & Analysis I  
LA 203 Litigation Preparation & Procedure

**18-19 Credit Hours**

3  
4  
3  
3  
3  
3  
3

**Choose one of the following:**

LA 205 Real Estate Law  
LA 206 Probate Law  
LA 207 Family Law  
LA 208 Tort Law

**3 Credit Hours**

# **HEALTH SCIENCES/ALLIED HEALTH**

## **Certified Nurse Aide**

### **Certificate of Development**

**Program Code: 197      Credit Hours: 18      Contact Hours: 20**

**Director: Peter Olson**

Students who complete AH 154 (Certified Nurse Aide Training) will be eligible to take the certified nurse aide (CNA) examination in the State of Michigan. These students will be prepared for immediate employment in long-term care facilities, home health care, physicians' offices and hospitals. Students who complete North Central's Certificate of Development program (which includes AH 154) will be better prepared for advancement in the healthcare field. Classes other than AH 154 may be taken either in conjunction with CNA training or separately.

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. Students will be required to meet immunization standards of the clinical facilities and will be subject to a criminal background check.

#### **Program Requirements**

#### **18 Credit hours**

AH 154 Certified Nurse Aide Training	5
ENG 111 English Composition	3
OAS 116 Medical Terminology	3
COM 170 Interpersonal Communication	3
PSY 161 Introduction to Psychology <b>or</b>	3
SOC 171 Introduction to Sociology	3

#### **Choose one course from the following:**

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

## 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 evelopment 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 Program

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 the following:

- 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 MATH 110 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.

## Emergency Medical Services/Paramedic

### Associate of Applied Science

**Program Code: 253      Credit Hours: 60      Contact Hours: 79**

**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. EMS 110 (EMT-Basic) courses are offered in the fall semester in Petoskey, in the winter semester in East Jordan, and in the summer semester in Cheboygan.

The Paramedic program itself (beginning with EMS 120 in the fall semester) is a selective admission program; students should complete and submit an Allied Health Program Application by July 1 of the year they intend to take EMS 120. (Find the application here: [http://www.ncmich.edu/pdfs/Allied\\_Health\\_Application.pdf](http://www.ncmich.edu/pdfs/Allied_Health_Application.pdf) ) Courses will be offered over approximately an 18-month period.

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 MATH 110

#### General Education Requirements

ENG 111 English Composition I  
ENG 112 English Composition II  
MATH 110 Beg-Int. Algebra (Part I)  
COM 170 Interpersonal Communication  
CEM 101 Fundamentals of Chemistry

#### 17 Credit Hours

3  
3  
4  
3  
4

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

#### Program Requirements

EMS 120 Paramedic 1  
BIO 133 Human Biology with Lab +  
EMS 130 Paramedic 2  
EMS 220 Paramedic 3

#### 43 Credit Hours

6  
4  
9  
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. EMS 110 (EMT-Basic) courses are offered in the fall semester in Petoskey, in the winter semester in East Jordan, and in the summer semester in Cheboygan.

The Paramedic program itself (beginning with EMS 120 in the fall semester) is a selective admission program; students should complete and submit an Allied Health Program Application by July 1 of the year they intend to take EMS 120. (Find the application here: [http://www.ncmich.edu/pdfs/Allied\\_Health\\_Application.pdf](http://www.ncmich.edu/pdfs/Allied_Health_Application.pdf) ) Courses will be offered over approximately an 18-month period.

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 MATH 110

<b>Program Requirements:</b>	<b>43 Credit Hours</b>
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  
 + 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.

<b>Program Requirements</b>	<b>16 Credit Hours</b>
EMS 110 EMT Basic	9
MATH 100 Mathematical Reasoning	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: 31-33**

**Contact Hours: 38-40**

**Director: Peter Olson**

Medical Assistant training provides diverse employment opportunities. Students in this program can develop skills necessary for entry-level employment in the healthcare 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.

Since this program is very rigorous and demanding, students should consider carefully their outside work schedule given the requirements of the program, and especially in AH 285 (Work Based Learning Medical Assistant), where students will be placed for 10 hours each week of a normal semester in a clinical setting (20 hours each week in a shortened summer semester). Students should also realize that they may be expected to travel as much as 40-80 miles one way for work-based learning placements at regional offices or clinics so as not to overload a single clinical site with too many students. Every effort will be made to assign students to clinical and externship sites fairly.

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 Allied Health Program admission application. 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 C+ in prerequisite courses, and work experience. Acceptance is not guaranteed.

Students may not enroll in AH 107, AH 108, and AH 285 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 or MATH 100 or above prior to enrolling in the program.
2. B 104 or MATH 100 or MATH 110 is a prerequisite for AH 180.
3. AH 107 and AH 108 and AH 180 and OAS 190 and OAS 216 or AH 107 and AH 108 and AH 180 and OAS 190 and OAS 220 and OAS 221 must be completed before enrollment into Work-Based Learning AH 285.
4. Students must show proof of current CPR certification (American Heart Association: BLS for Healthcare Providers or American Red Cross: CPR for the Professional Rescuer) prior to the start of AH 285. North Central's EMS 101, CPR and First Aid, satisfies this requirement.
5. Students must have basic computer skills, ability to type at 30 wpm and use a computer mouse, access the internet, and knowledge of word-processing programs.

### **Prerequisites:**

OAS 116	Medical Terminology	3
AH 130	Body Systems and Diseases	3

**Program Requirements 31-33 Credit Hours**

AH 107	Medical Office Procedures	3
AH 108	Medical Office Procedures II	2
B 104	Business Math <b>or</b>	3
MATH 100	Mathematical Reasoning <b>or</b>	4
MATH 110	Beg-Int. Algebra (Part I) <b>or higher</b>	4
AH 180	Pharmacology for Medical Assistants	3
ENG 111	English Composition I	3
OAS 101	Customer Service	1
OAS 190	Employability Skills	1
OAS 141	Filing and Records Management	2
OAS 216	Medical Billing <b>or</b>	3
OAS 220	Beginning Medical Billing <b>and</b>	
OAS 221	Beginning Medical Coding	4
AH 285	Work-Based Learning Medical Assistant I*	3

\*Must complete AH 107 and AH 108 and AH 180 and OAS 190 and OAS 216 (or OAS 220 + OAS 221) prior to enrolling 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:**

<b>Semester I (Fall)</b> (prior to acceptance)	AH 180
AH 130	OAS 141
OAS 116	OAS 216
B 104 <b>or</b>	<b>Semester III (Fall)</b>
MATH 100 <b>or</b>	AH 108
MATH 110 (or higher)	OAS 190
OAS 101	ENG 111
<b>Semester II (Winter)</b> (after acceptance into the program)	<b>Semester IV (Winter)</b>
AH 107	AH 285

**Suggested Sequence for Part-Time Students:**

<b>Semester I (Fall)</b>	<b>Semester III (Fall)</b>
AH 130	AH 108
OAS 116	OAS 141
B 104 <b>or</b>	OAS 216
MATH 100 <b>or</b>	<b>Semester IV (Winter)</b>
MATH 110 (or higher)	AH 285
<b>Semester II (Winter)</b>	OAS 101
AH 107	ENG 111
AH 180	
OAS 190	

## Medical Billing and Coding

### Certificate of Development

**Program Code: 179      Credit Hours: 16      Contact Hours: 16-17**

**Associate Dean: Peter Olson**

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](http://www.ahima.org)) and the American Academy of Professional Coders ([www.aapc.com](http://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.

<b>Program Requirements</b>	<b>16 Credit Hours</b>
BIO 133** Human Biology	4
OAS 116 Medical Terminology OL	3
OAS 190 Employability Skills	1
OAS 220* Beginning Medical Coding OL	2
OAS 221* Beginning Medical Billing OL	2
OAS 230 Advanced Medical Coding ICD-9-CM OL	2
OAS 231 Advanced Medical Coding CPT OL	2

\* 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: Peter Olson**

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.

<b>Program Requirements</b>	<b>30-31 Credit Hours</b>
BIO 133* Human Biology with Lab	4
ENG 111 English Composition I	3
OAS 116 Medical Terminology	3
OAS 117 Medical Transcription	3
OAS 122 Document Processing I	3
OAS 141 Filing and Records Management	2
OAS 190 Employability Skills	1
OAS 216** Medical Insurance and Billing	3
OAS 223 Document Processing II	3
OAS 224 Transcription and Editing	4
OAS 285*** Work-Based Learning-OAS	2

\* 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: 256      Credit Hours: 72      Contact Hours: 106**

**Associate Dean: Mary Miles**

North Central offers the Associate of Applied Science in nursing degree for students who upon completion of the program will be eligible to take the National Council Licensure Examination (NCLEX) for Registered Nurses. A nursing degree provides diverse opportunities for challenging jobs and advancement. Registered Nurses with an Associate of Applied Science degree are eligible to work in a variety of settings including a hospital, extended care facility, home health care and physician practice.

Nursing is a very competitive program and admission is based on a competitive ranking of applicants. 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.

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](http://www.ncmich.edu/nursing.html) frequently for updates and changes.

### **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 Science Requirements and the General Education Requirements on the on the Nursing Applicant Advising Sheet. The Nursing Applicant Advising Sheet may be found on the web at [www.ncmich.edu](http://www.ncmich.edu). Go to Programs of Study, North Central Associate's degrees, and then Nursing.
  - Calculated grade point average of the General Education Requirements and the Program Requirements on the Planning Form.
  - Courses repeated more than one time may negatively influence admission.
  - 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.
  - Grades in science courses (BIO 235 and BIO 236). Science courses must be completed with a grade of "C" or better and no more than five years prior to admission to the nursing program.
  - Scores on the Test of Essential Academic Skills (TEAS). Information about the TEAS may be found at [www.atitesting.com](http://www.atitesting.com). Announcement for dates and times for administration of the TEAS will be announced on the College web page in March.
  - Students should be in good physical condition to meet the demands of the program. See Nursing Handbook under "Standards and Functional Abilities."
  - LPNs or those transferring from other nursing program should note that nursing coursework will not transfer in if completed more than 2 years prior to admission to the program.

**Science Requirements:** These courses must be completed before admission to the program.

It is strongly recommended that these be completed with a “B” grade or better due to the competitive admission process. These courses must have been completed within five years of admission to program.

\_\_\_ BIO 235 General Anatomy and Physiology I

\_\_\_ BIO 236 General Anatomy and Physiology II

**General Education Requirements:** These courses must be completed before admission to the program.

\_\_\_ ENG 111 English Composition I

\_\_\_ ENG 112 English Composition II

\_\_\_ COM 111 Speech or COM 170 Interpersonal Communication

\_\_\_ PSY 161 Introduction to Psychology

\_\_\_ PSY 261 Developmental Psychology

3. 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;
  - Provide proof of current health insurance;
  - Provide proof 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.

## 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](http://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. The College may accept credits for transfer that will not be eligible to meet nursing program requirements.

5. **Attend a Nursing Program Information Session** It is strongly recommended that students interested in the nursing program attend a Nursing Program Information Session. These sessions are held every month during the academic year and give detailed information regarding admission requirements, course requirements, program expectations, and estimated costs. See the college website for session dates and times at [www.ncmich.edu/nursing.html](http://www.ncmich.edu/nursing.html).
6. **Program Advising.** All new applicants who list “256 Nursing” as their program of study have the option of meeting with a nursing faculty member for program advising. If you would like to meet with a nursing advisor, please contact Kim Kingsbury at 231-348-6696 to schedule an appointment. 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](http://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.

## General Education and Science Requirements

<b>General Education Requirements</b>	<b>23 Credit Hours</b>
ENG 111 English Composition I	3
ENG 112 English Composition II	3
COM 111 Speech <b>or</b>	3
COM 170 Interpersonal Communication	3
PSY 161 General Psychology	3
PSY 261 Developmental Psychology	3
 <b>Science Requirements</b>	
BIO 235 Anatomy and Physiology I	4
BIO 236 Anatomy and Physiology II	4

## Sequence of Nursing Courses 49 Credit hours

Fall Semester – 1 <sup>st</sup> year	14 Credit hours
NUR 110 Introduction to Health Care Concepts 10 (7-5-4)	10
NUR130 Health System Concepts 2 (2-0-0)	2
AH 116 Math for Health Professions 2(2-0-0)	2
 Winter Semester	
	13 Credit hours
NUR150 Health Illness Concepts 5 (3-0-6)	5
NUR170 Holistic Health Concepts 5(3-0-6)	5
AH 280 Pharmacology 3 (3-0-0)	3
 Fall Semester-2 <sup>nd</sup> year	
	11 Credit hours
NUR 210 Family Health Concepts 5 (3-0-6)	5
NUR 230 Acute Health Concepts 5 (3-0-6)	5
NUR 250 Management of Care Concepts 1(1-0-0)	1

Winter Semester	11 Credit hours
NUR 270 Complex Health Concepts 11(6-0-15)	11
<b>Total Number of Credit Hours</b>	<b>72</b>

**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.**



## **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 on line. 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.

#### **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.

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 on line. 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):** **9-10 Credit Hours**

(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 <b>or</b>	3
BIO 133 Human Biology	4

**Program Requirements:** **7 Credit Hours**

PHLB 101 Phlebotomy I	4
<i>Must be completed with a C+ (2.33 GPA) to enter PHLB 102</i>	
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

## **Surgical Technologist**

### **Associate of Applied Science**

**Program Code: 258      Credit Hours: 75      Contact Hours: 132**

**Director: Peter Olson**

Surgical technologists are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients. Surgical technologists work under the supervision of a surgeon to facilitate the safe and effective conduct of invasive surgical procedures, ensuring that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety. Surgical technologists possess expertise in the theory and application of sterile and aseptic technique and combine the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

North Central's Surgical Technologist Program courses are offered over four semesters (excluding summer), beginning in the fall term of odd-numbered years, and ending at the close of the winter term one year later. The Surgical Technologist program, in full compliance with the Association of Surgical Technologist's (AST) Core Curriculum, offers students the chance to complete a Certificate or an Associate of Applied Science degree.

Since this program is very rigorous and demanding, students should consider carefully their outside work schedule given the requirements of the program (and especially in SRG 230 (Surgical Technologist IV-Externship, where students will be placed for 36 hours each week in a clinical setting). Students should also realize that they may be expected to travel as much as 40-100 miles one way for clinical observations and/or externships at regional hospitals so as not to overload a single clinical facility with too many students. Every effort will be made to assign students to clinical and externship sites fairly.

This is a selective admission program, which means that more students typically apply than the program can accept; students are ranked for admission based on the following criteria:

- Submission of completed Allied Health Program Application;
- Submission of assessment scores (either Compass or ACT Reading and Math scores);
- Completion of ENG 111;
- Completion of MATH 110 (or ACT Math score of 21 or higher or Compass Math score of 146 or higher);
- Completion of EMS 101 (or current American Heart Association Basic Life Support for Healthcare Providers or American Red Cross CPR for the Professional Rescuer; this certification must be maintained throughout the program);
- Overall grade point average;
- Grade point average and completion status of these prerequisite courses:
  - BIO 226 Microbiology (taken within 5 years of application deadline)
  - BIO 235 Anatomy and Physiology I (taken within 5 years of application deadline)
  - BIO 236 Anatomy and Physiology II (taken within 5 years of application deadline)
  - OAS 116 Medical Terminology
- Visit, volunteer, or work experience in healthcare (as documented on North Central's "Visit, Volunteer, Work Experience Statement," a part of the Allied Health Program Application form).

Students should complete the Allied Health Program Application form and return it with all necessary attachments by July 1 of the year they plan to enter the Surgical Technologist program in the fall. Students who are accepted into the program must enter the program in the fall following their application; students who are not admitted to the program, or who decide not to accept the offer of admission immediately, must re-apply; applications will not be kept on file, nor is there a waiting list for the program. Students may apply to the program while completing prerequisite courses, but all prerequisite courses (with the exception of AH 182 Pharmacology for Surgical Technologists, which may be taken concurrently with SRG 120 Surgical Technology I), must be completed before beginning the program.

Students who are accepted into the program are further required to provide the following (described in more detail in the Allied Health Student Handbook):

- Current immunization information (students must also maintain current immunization status throughout the program),
- Background check authorization information (students should note that many types of criminal behavior may negatively affect program admission or completion due to requirements of clinical facilities where students may be placed; it is important that the student maintain a clean record for the duration of the program);
- Proof of current health insurance;
- Meet specific functional abilities with or without accommodations for successful completion of the program and to function safely and effectively in a variety of professional settings. Students who think they may not be able to meet the functional standards and need accommodation are encouraged to contact the Director of Allied Health or Learning Support Services.

Students completing North Central's Surgical Technologist program will be eligible to obtain voluntary professional certification from the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

<b>Surgical Technologist Program Prerequisites:</b>		<b>23 Credit Hours</b>
BIO 226	Microbiology	4
BIO 235	Anatomy/Physiology I	4
BIO 236	Anatomy/Physiology II	4
EMS 101	CPR/First Aid (or equivalent)	1
ENG 111	English Composition I	3
MATH 110	Beg-Int. Algebra (Part I)	4
OAS 116	Medical Terminology	3

All Surgical Technologist program courses must be completed with at least a "C+."

Students wishing to complete the Associate of Applied Science degree should also complete the following courses:

		<b>9 Credit Hours</b>
ENG 112	English Composition II	3
COM 170	Interpersonal Communication	3
PSY 161	Introduction to Psychology or	3
SOC 171	Introduction to Sociology	3

<b>Surgical Technologist Program Requirements:</b>		<b>43 Credit Hours</b>
AH 182	Pharmacology for Surgical Technologists (Strongly recommended before SRG 120)	4
SRG 120	Surgical Technologist I	9
SRG 130	Surgical Technologist II	9
SRG 220	Surgical Technologist III	9
SRG 230	Surgical Technologist IV (Externship)	9
SRG 240	Operating Room Seminar	3

#### **Suggested Sequence**

SRG 120	(Fall, Odd years)
AH 182	(with SRG 120, if not taken before)
SRG 130	(Winter, Even years)
SRG 220	(Fall, Even years)
SRG 230	(Winter, Odd years)
SRG 240	(Winter, Odd years)

## **Surgical Technologist**

### **Certificate**

**Program Code: 183**

**Credit Hours: 66**

**Contact Hours: 123**

**Director: Peter Olson**

Surgical technologists are allied health professionals, who are an integral part of the team of medical practitioners providing surgical care to patients. Surgical technologists work under the supervision of a surgeon to facilitate the safe and effective conduct of invasive surgical procedures, ensuring that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety. Surgical technologists possess expertise in the theory and application of sterile and aseptic technique and combine the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

North Central's Surgical Technologist Program courses are offered over four semesters (excluding summer), beginning in the fall term of odd-numbered years, and ending at the close of the winter term one year later. The Surgical Technologist program, in full compliance with the Association of Surgical Technologist's (AST) Core Curriculum, offers students the chance to complete a Certificate or an Associate of Applied Science degree.

Since this program is very rigorous and demanding, students should consider carefully their outside work schedule given the requirements of the program (and especially in SRG 230 (Surgical Technologist IV—Externship, where students will be placed for 36 hours each week in a clinical setting). Students should also realize that they may be expected to travel as much as 40-100 miles one way for clinical observations and/or externships at regional hospitals so as not to overload a single clinical facility with too many students. Every effort will be made to assign students to clinical and externship sites fairly.

This is a selective admission program, which means that more students typically apply than the program can accept; students are ranked for admission based on the following criteria:

- Submission of completed Allied Health Program Application;
- Submission of assessment scores (either Compass or ACT Reading and Math scores);
- Completion of ENG 111;
- Completion of MATH 110 (or ACT Math score of 21 or higher or Compass Math score of 146 or higher);
- Completion of EMS 101 (or current American Heart Association Basic Life Support for Healthcare Providers or American Red Cross CPR for the Professional Rescuer; this certification must be maintained throughout the program);
- Overall grade point average;
- Grade point average and completion status of these prerequisite courses:
  - BIO 226 Microbiology (taken within 5 years of application deadline)
  - BIO 235 Anatomy and Physiology I (taken within 5 years of application deadline)
  - BIO 236 Anatomy and Physiology II (taken within 5 years of application deadline)
  - OAS 116 Medical Terminology
- Visit, volunteer, or work experience in healthcare (as documented on North Central's "Visit, Volunteer, Work Experience Statement," which is part of the Allied Health Program Application form).

Students should complete the Allied Health Program Application form and return it with all necessary attachments by July 1 of the year they plan to enter the Surgical Technologist program in the fall. Students who are accepted into the program must enter the program in the fall following their application; students who are not admitted to the program, or who decide not to accept the offer of admission immediately, must re-apply; applications will not be kept on file, nor is there a waiting list for the program. Students may apply to the program while completing pre-requisite courses, but all prerequisite courses

(with the exception of AH 182 Pharmacology for Surgical Technologists, which may be taken concurrently with SRG 120 Surgical Technology I), must be completed before beginning the program.

Students who are accepted into the program are further required to provide the following (described in more detail in the Allied Health Student Handbook):

- Current immunization information (students must also maintain current immunization status throughout the program),
- Background check authorization information (students should note that many types of criminal behavior may negatively affect program admission or completion due to requirements of clinical facilities where students may be placed; it is important that the student maintain a clean record for the duration of the program);
- Proof of current health insurance;
- Meet specific functional abilities with or without accommodations for successful completion of the program and to function safely and effectively in a variety of professional settings. Students who think they may not be able to meet the functional standards and need accommodation are encouraged to contact the Director of Allied Health or Learning Support Services.

Students completing North Central's Surgical Technologist program will be eligible to obtain voluntary professional certification from the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

<b>Surgical Technologist Program Prerequisites:</b>		<b>23 Credit Hours</b>
BIO 226	Microbiology	4
BIO 235	Anatomy/Physiology I	4
BIO 236	Anatomy/Physiology II	4
EMS 101	CPR/First Aid (or equivalent)	1
ENG 111	English Composition I	3
MATH 110	Beg-Int. Algebra (Part I)	4
OAS 116	Medical Terminology	3

All Surgical Technologist program courses must be completed with at least a "C+."

<b>Surgical Technologist Program Requirements</b>		<b>43 Credit hours</b>
AH 182	Pharmacology for Surgical Technologists (Strongly recommended before SRG 120)	4
SRG 120	Surgical Technologist I	9
SRG 130	Surgical Technologist II	9
SRG 220	Surgical Technologist III	9
SRG 230	Surgical Technologist IV (Externship)	9
SRG 240	Operating Room Seminar	3

**Suggested Sequence**

SRG 120	Fall, Odd years
AH 182	with SRG 120, if not taken before
SRG 130	Winter, Even year)
SRG 220	Fall, Even years
SRG 230	Winter, Odd years
SRG 240	Winter, Odd years

# **NATURAL SCIENCES**

## Viticulture and Enology

### Associate of Applied Science

**Program Code: 246      Credit hours: 62-63**

**Contact hours: 65-66**

**Associate Dean: Peter Olson**

The Viticulture and Enology degree program is designed to prepare individuals for various careers in the grape growing and wine making industry. Classroom instruction, online curriculum and field applications of viticulture and enology principles and practices are included in the program of study.

Course work includes aspects of plant science, vineyard stock selection and propagation, soils, vine nutrition, and pest management. Those interested in enology will receive training in the classroom and the field in the tools and techniques of wine making. Related courses in business, marketing, entrepreneurship and technology help produce a more well-rounded and employable graduate.

Graduates should qualify for positions in vineyards, wineries, and in related areas of sales and services.

VESTA courses, as shown below in Additional Requirements, refer to online courses offered by accredited colleges through a partnership between the Viticulture and Enology Science and Technology Alliance (VESTA) and Michigan State University. More information is available at <http://www.vesta-usa.org/main/>.

#### General Education Requirements

**13 credit hours**

ENG 111	English Composition I	3
ENG 112	English Composition II	3
COM 111	Speech <b>or</b>	3
COM 170	Interpersonal Communication	3
MATH 100	Mathematical Reasoning	4

#### Program requirements

**28-29 credit hours**

B 111	Accounting Procedures <b>or</b>	3
B 211	Principles of Accounting I	4
B 161	Introduction to Business	3
BIO 101	Introduction to Biology	4
CEM 101	Introduction to Chemistry	4
CIS 100	Introduction to Computers	3
OAS 101	Customer Service	1
OAS 190	Employability Skills	1
VNW 110	Introduction to Viticulture	3
VNW 120	Introduction to Enology	2
VNW 285	Viticulture Internship I	2
VNW 290	Viticulture Internship II	2

#### Additional requirements (VESTA)

**15 credit hours**

VIN 148	Winery Sanitation	3
VIN 160	Winery Equipment Operation	2
VIN 211	Integrated Pest Management	2
VIN 213	Regional Vineyard Management	2
VIN 246	Intermediate Enology	3
VIN 268	Wine and Must Analysis	3



**Electives- choose six (6) credits from the following:**

CAP 135	Web Page Design	3
CAP 220	Production Art	3
ENT 125	Legal Issues for Entrepreneurs	1
ENT 140	Technology and Entrepreneurship	1
ENT 145	Advertising and the Entrepreneur	1
B 165	Small Business Essentials	3
M 204	E-Commerce, Retailing & Services	3
M 205	Principles of Selling	3

**Suggested Sequence for Full-Time Students:**

**Semester I (Fall)**

B 161  
BIO 101  
CIS 100  
MATH 100  
VNW 110

**Semester II (Winter)**

B 111 or B 211  
CEM 101  
ENG 111  
VIN 211  
VNW 120

**Semester III (Fall)**

ENG 112  
VIN 148  
VIN 160  
VIN 213  
VNW 285

**Semester IV (Winter)**

COM 111 or COM 170  
OAS 101  
OAS 190  
VIN 246  
VIN 268  
Additional requirement(s)

**Semester V (Fall)**

VNW 290  
Additional requirement(s)

## Viticulture and Enology

### Certificate

**Program Code: 146      Credit hours: 32      Contact hours: 35**

**Associate Dean: Peter Olson**

The Viticulture and Enology certificate program will prepare students for entry level positions in the grape growing and wine making industry. Classroom instruction, online curriculum and field applications of viticulture and enology principles and practices are included in the program of study.

The program includes introductory courses in viticulture and enology in addition to several focused courses. Also included are general and applied business education courses. Graduates should qualify for positions in vineyards, wineries, and in related areas of sales and services.

Student completing this certificate will be well prepared to continue to NCMC's Associate of Applied Science degree in Viticulture and Enology.

VESTA courses, as shown below in Additional Requirements, refer to online courses offered by accredited colleges through a partnership between the Viticulture and Enology Science and Technology Alliance (VESTA) and Michigan State University. More information is available at <http://www.vesta-usa.org/main/>.

<b>Program Requirements</b>		<b>Credit Hours 32</b>
BIO 101	Introduction to Biology	4
CEM 101	Introduction to Chemistry	4
CIS 100	Introduction to Computers	3
ENG 111	English Composition I	3
ENT 125	Legal Issues for Entrepreneurs	1
ENT 140	Technology and Entrepreneurship	1
ENT 145	Advertising and the Entrepreneur	1
MATH 100	Mathematical Reasoning	4
VIN 160	Winery Equipment Operation	2
VIN 213	Regional Vineyard Management	2
VNW 110	Introduction to Viticulture	3
VNW 120	Introduction to Enology	2
VNW 285	Viticulture Internship I	2

### **Suggested Sequence for Full-Time Students:**

#### **Semester I (Fall)**

BIO 101  
CIS 100  
ENT 145  
ENT 145  
MATH 100

#### **Semester II (Winter)**

CEM 101  
ENG 111  
ENT 120  
VIN 213  
VNW 120

#### **Semester III (Fall)**

VIN 160  
VNW 285  
VNW 110

## **Grape Growing and Wine Making**

### **Certificate of Development**

**Program Code: 147      Credit hours: 18      Contact hours: 21**

**Associate Dean: Peter Olson**

This program introduces students to the field of viticulture and enology and the basic science behind it. After completing this degree, a student may continue on to the Certificate of Associate of Applied Science programs, or seek entry-level employment in the field.

This program is also ideal for the “backyard vintner” who wishes to expand upon his or her knowledge to enhance enjoyment of a hobby or cottage business.

#### **Program Requirements**

#### **Credit Hours 18**

BIO 101	Introduction to Biology	4
CEM 101	Introduction to Chemistry	4
CIS 100	Introduction to Computers	3
VNW 110	Introduction to Viticulture	3
VNW 120	Introduction to Enology	2
VNW 285	Viticulture Internship	2

#### **Suggested Sequence for Full-Time Students:**

##### **Semester I (Fall)**

BIO 101  
CIS 100  
VNW 110

##### **Semester II (Winter)**

CEM 101  
VNW 120  
VNW 285

## Landscape & Nursery or Applied Plant Science

### Associate of Applied Science

**Program Code: 247      Credit Hours: 60      Contact Hours: 62**

**Associate Dean: Peter Olson      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](mailto:NORMANL@msu.edu)

#### North Central Michigan College Courses

##### Program Requirements

**23 Credit Hours**

CEM 101 Fundamentals of Chemistry *	4
CIS 100 Introduction to Computers *	3
COM 170 Interpersonal Communication	3
ECO 111 Macroeconomics <b>or</b> *	3
ECO 112 Microeconomics	3
ENG 111 English Composition I *	3
ENG 112 English Composition II	3
MATH 110 Beg-Int. Algebra (Part I)	4

#### MSU and NMC Courses, taught in Traverse City at NMC

##### Program Requirements

**19 Credit Hours**

BIO 108 Plant Biology (NMC course) *	4
CSS 210 Basic Soil Science (ITV) *	3
ENT 110 Applied Entomology for Ornamentals and Turf *	3
HRT 213 Landscape Maintenance (ITV) *	2
HRT 215 Landscape Industries Seminar *	1
HRT 218 Landscape Irrigation (ITV) *	3
PLP 200 Plant Diseases and their Pathology *	3

\* Required courses for MSU certification

#### Suggested Sequence for Full-Time Students at North Central

##### Semester I (Fall)

COM 170  
ENG 111  
MATH 110  
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 North Central 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

**North Central**

B 161 Introduction to Business	3
B 165 Small Business Essentials	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
MATH 120 Intermediate Algebra	4
PSY 161 Introduction to Psychology	3

\*Required courses for MSU Certificate. See MSU advisor for details

**Summary of Credits**

<b>AAS in Landscape &amp; Nursery or Applied Plant Science</b>	<b>Credit Hours</b>
NCCMC Program Requirements	23
MSU and NMC required courses	19
MSU Concentration courses	9-12
NCCMC and MSU electives	6-9
NCCMC Degree Total:	60

## 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

General Education Requirements	15 Credit Hours
ENG 111 English Composition I	3
ENG 112 English Composition II	3
COM 170 Interpersonal Communication	3
Math competency	3
General Ed electives according to educational plan	3
<b>Specialty Area</b>	<b>15-25</b>
(North Central courses chosen according to educational plan)	

## 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.

PREREQUISITES: 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 AH 285.

PREREQUISITES: AH 107, AH 180

**AH 116      MATH FOR HEALTH PROFESSIONALS      2(2-0-0)**

Designed for students majoring in nursing or allied health with an emphasis on math necessary for safe drug dosage calculation and medication administration. Topics will include solving problems and equations using fractions, decimals, percents, as well as using formulas and dimensional analysis. An overview of the metric system will also be provided. Emphasis will be placed on solving problems using drug calculations for medication administration.

PREREQUISITE: Admission to the nursing program

**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. Students should be advised that clinical instruction may take place outside of times allotted for normal classroom or lab time.

**AH 180      PHARMACOLOGY FOR ALLIED HEALTH      (F,W)      3(3-0-0)**

An applied pharmacology course designed for the Allied Health student. Emphasis is on safe, accurate administration of medications typically given in an allied health setting. The student will acquire knowledge of drug actions, major side effects, and techniques of administration.

PREREQUISITES: B 104 or MATH 100 or MATH 110 or higher, AH 130 or BIO 133 or BIO 235

**AH 182 PHARMACOLOGY FOR SURGICAL TECHNOLOGISTS (F,W) 4(4-0-0)**

An applied pharmacology course designed for the Surgical Technology student. Emphasis is on safe, accurate administration of medications typically given in a surgical setting. The student will acquire knowledge of drug actions, major side effects, and techniques of administration, in addition to specific additional instruction and practice in the relevant medications and procedures unique to the surgical setting.

PREREQUISITES: MATH 110 or higher, BIO 226, BIO 235

**AH 240 PATHOPHYSIOLOGY (F,W) 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 (W) 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: AH 154 or current certification as CNA

**AH 280 PHARMACOLOGY (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.

PREREQUISITES: BIO 235, BIO 236, NUR 110

**AH 285 WORK BASED LEARNING – MEDICAL ASSISTANT I (F,W,S) 3(0-0-12)**

Students in this course are placed in a medical office for a minimum of 160 hours of externship experience, where they will be working directly with a Medical Assistant or Registered Nurse to enhance administrative and clinical skills they have acquired in AH 107 and AH 108 (Medical Office Procedures I and II). Students will complete task lists for these skills that will be monitored both by medical office staff and North Central's clinical instructor. Students will not be placed with their current employer. Students will typically meet with Allied Health faculty and staff near the end of AH 108 in preparation for their externship placements in the following term.

PREREQUISITES: AH 107, AH 180, OAS 190, and OAS 216 or AH 107, AH 108, AH 180, OAS 190 and OAS 220 and OAS 221

**AH 297 SPECIAL TOPICS IN ALLIED HEALTH (Variable) 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,S) 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



**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.

**ANP 161 INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY (W) 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.

**ANP 210 ETHNOLOGY OF WORLD CULTURES (W) 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.

**ANP 295 FIELD STUDIES IN ANTHROPOLOGY (Variable) 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: 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 (F,W) 3(3-0-0)**

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

**ART 106      ART HISTORY II      (W)      3 (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 14<sup>th</sup> century through the early 20<sup>th</sup> 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

**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 112      WATERCOLORS I      (F)      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 114      OIL PAINTING      (F)      3(3-0-0)**

This is an introduction to the medium of oil paint. Students will explore a wide range of techniques, styles, color theory, and methods.

**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.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**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      (W)      3(3-0-0)**

The study of Modern Art from Cubism through the 21<sup>st</sup> century

**ART 118      OIL PAINTING II      (W)      3(3-0-0)**

Presents the fundamental principles and techniques of painting. Integration of drawing and design concepts are emphasized. Students work exclusively with the medium of oil paint.

PREREQUISITE: ART 114

**ART 120      ARTS FOR EDUCATORS      (F)      3(3-0-0)**

Designed to provide prospective educators the opportunity to explore the role of studio art in the classroom by developing and presenting art projects that engage students with artistic interpretation or relevant subjects such as science or history.

**ART 130 INTRODUCTION TO JEWELRY (F) 3(3-0-0)**  
Introduction to fine metals. Exploration of the design and creation of jewelry forms using traditional fabrication techniques. Processes include piercing, basic soldering techniques, bezel stone settings, 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 (F) 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 (S) 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 (S) 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 (F, 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: ART 204 or equivalent.

**ART 206 CERAMICS III (F, 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: ART 205 or equivalent.

**ART 208 ADVANCED CERAMICS (F, 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: 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 AND COMPOSITION      (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.

**ART 218      WATERCOLORS II      (W)      3(3-0-0)**

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: ART 112 or permission of the instructor.

**ART 219      WATERCOLORS III      (W)      3(3-0-0)**

A continuation of ART 218, this course emphasizes advanced techniques as well as building on techniques and approaches discussed in

PREREQUISITE: ART 218 or permission of the instructor.

**ART 220      STAINED GLASS      (F,W)      3(3-0-0)**

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.

**ART 221      ADVANCED STAINED GLASS      (F,W)      3(3-0-0)**

A continuation of ART 220 with greater emphasis on design and execution of larger objects.

**ART 222      OIL PAINTING III      (F)      3(3-0-0)**

Consolidates concepts and methods from Oil Painting I and II leading students to expand perceptual awareness.

PREREQUISITE: ART 118

**ART 223      OIL PAINTING IV      (W)      3(3-0-0)**

An advanced studio experience, this course encourages students to explore a range of oil painting techniques while developing their own voice or style. This course will start with a structured series of projects but will eventually focus on the student's individual artistic direction.

PREQUISITE: ART 222

**ART 226      HOW WE FELT      (W)      1(1-0-0)**

Feltmaking methods for the fiber artist, including preparation of fiber, wet felting, needle felting and nuno felting. Students will experience stages of felting and the potential uses of each stage for artistic expression.

**ART 227      INDIGO LOVES SHIBORI      (F)      1(1-0-0)**

Many forms of indigo dye will be studied, including extracting color from fresh leaves, pre-reduced and synthetic indigo on cellulose and protein fibers. Fabrics will be manipulated with stitched, clamped and tied resists.

**ART 228      SOY WAX TO THE MAX      (W)      1(1-0-0)**

An in-depth study of soy wax as both resist and color-carrying substance. Course work will include dye methods for direct application, dye fixing and finished samples of the techniques.

**ART 229      DECONSTRUCTED SCREEN PRINTING      (Variable)      1(1-0-0)**

An in-depth exploration of deconstructed screen printing. Students will embed textures in screens and use fiber reactive dyes to print on natural fibers.

**ART 230      SURFACE DESIGN FOR TEXTILES      (F)      3(3-0-0)**

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.

**ART 231 INTRODUCTION TO WEAVING (F) 3(3-0-0)**

An introduction to several types of weaving methods, using very simple to highly technical looms. Materials, methods and finishing will be covered.

**ART 232 ADVANCED WEAVING (F) 3(3-0-0)**

Continuing study into weave structures and methods. Emphasis placed on four harness weaving including tabby, twill, basket, double weave, and patterns.

PREREQUISITE: ART 231

**ART 234 DYEING TO WEAVE 3(3-0-0)**

An investigation of the role color and dye methods play in weave patterns and structures. Students will explore ikat, woven, shibori, space dyeing and painted warp techniques, then pair them with four harness weave structures and patterns to make cloth.

PREREQUISITE: ART 231

**ART 235 TEXTILE DYE INTENSIVE (W) 3(3-0-0)**

An in-depth exploration of the methods used to dye natural fibers. Dye systems including Procion MX, Acid and natural dyes will be investigated.

**ART 236 TEXTILE NATURAL DYE INTENSIVE (F) 3(3-0-0)**

An in-depth exploration of the plants and insects used to dye natural fibers. Systematic dyeing with meticulous record keeping strategies will be stressed.

**ART 238 DIGITAL IMAGING FOR TEXTILES (W) 3(3-0-0)**

Develop textile surface designs including pattern, motif and color manipulation using digital imaging, use the process for printing directly onto fabric, and incorporate these images into fiber art.

PREREQUISITE (S): ART 100 or ART 101 or ART 230

**ART 240 JEWELRY II (W) 3(3-0-0)**

An opportunity for students with experience in basic metalsmithing and jewelry processes to focus on advanced techniques such as chasing & 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.

PREREQUISITES: ART 130

**ART 242 JEWELRY III (W) 3(3-0-0)**

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.

PREREQUISITE: ART 240

**ART 244 JEWELRY IV (W) 3(3-0-0)**

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.

PREREQUISITE: ART 242

**ART 245 THE BUSINESS OF ART (F) 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 252 SURVEY OF GLASS TECHNIQUES II 3(3-0-0)**

In this hands-on overview of glass forming techniques students will further their experience with embossed, etched, slumped and fused glass, kiln cast, assembled, and cold worked glass.

**ART 290 PORTFOLIO DEVELOPMENT (W) 1(1-0-0)**  
 Learn to present your artwork in a professional manner in this capstone course. Whether seeking a job or applying to a 4-year college, you will create a polished representation of your body of work.  
 PREREQUISITE: Permission of instructor

**ART 295 FIELD STUDIES IN ART (Variable) 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: Permission of the instructor

**ART 297 SPECIAL TOPICS IN ART (Variable) 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 (Variable) 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 103 BASIC BUSINESS METHODS (F) 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 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 110 BUSINESS COMMUNICATION ESSENTIALS (F) 3(3-0-0)**  
 Provides a basic introduction to oral and written communications as they are 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 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 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: one college level accounting course.

**B 152 LEADERSHIP ESSENTIALS (Variable) 4(4-0-0)**

Designed for employees who are interested in furthering their communication and management skills to help them move into a supervisor/management position or for current supervisors/managers who would like to advance in their organization.

**B 155 PERSONAL FINANCE (F,W,S) 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) 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 165 SMALL BUSINESS ESSENTIALS (W) 3(3-0-0)**

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 or ownership, whether to buy and existing business or start your own, financial management and planning, basic economics, marketing, supply chain management, human resource management, purchasing, inventory control, risk management, and globalization.

**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,S) 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.

PREREQUISITES: 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: 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: 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: 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: 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: B 212
- B 222 LEADERSHIP DEVELOPMENT I (Variable) 4(4-0-0)**  
 A course for employees who are ready to lead within the organization. It focuses on communication and human resource management and is designed for employees already in management positions or for those who have successfully completed B 152.  
 PREREQUISITE: B 152
- B 232 LEADERSHIP DEVELOPMENT II (Variable) 3(3-0-0)**  
 For employees who are ready to lead within their organization and who have already had management experience and training. The course focuses on transition management, project management and financial analysis and is designed for employees who have advanced to middle or upper management, or for those who have successfully completed B 152 and B 222.  
 PREREQUISITE: B 152 and B 222



**B 285 WORK BASED LEARNING- BUSINESS (Variable) 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. Prerequisites are determined by the curriculum in which the student is enrolled.

**B 290 BUSINESS LAW I (F,W,S) 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 (F,W,S) 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 (Variable) 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: Science

**BIO 133 HUMAN BIOLOGY WITH LAB (F,W,S) 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: No prerequisite but high school biology is recommended.

GENERAL EDUCATION DISTRIBUTION AREA: Science

**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: No prerequisite but high school biology or successful completion of BIO 101 is recommended.

GENERAL EDUCATION DISTRIBUTION AREA: Science

**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: No prerequisite but high school biology or successful completion of BIO 101 or BIO 151 is recommended.

GENERAL EDUCATION DISTRIBUTION AREA: Science

**BIO 215 GREEN LIVING (Variable) 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 (S) 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: 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: BIO 235 or college biology background.

GENERAL EDUCATION DISTRIBUTION AREA: Science

**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: BIO 101, BIO 151, or BIO 152

GENERAL EDUCATION DISTRIBUTION AREA: Science

**BIO 235 GENERAL ANATOMY & PHYSIOLOGY I (F,W) 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: 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: Science

**BIO 236 GENERAL ANATOMY & PHYSIOLOGY II (F,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: BIO 235. Lecture and Lab.

GENERAL EDUCATION DISTRIBUTION AREA: Science

**BIO 265 ENVIRONMENTAL BIOLOGY (S) 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: BIO 101, BIO 151 or BIO 152 or permission of instructor

**BIO 295 FIELD STUDIES IN BIOLOGY I (Variable) 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: varies, check with instructor

**BIO 296 FIELD STUDIES IN BIOLOGY II (Variable) 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: BIO 295 and permission of instructor

**BIO 297 SPECIAL TOPICS IN BIOLOGY (Variable) 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 (Variable) 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: Satisfactory completion of at least two college biology courses and permission of the instructor.

## **CAP – Computer Applications**

**CAP 100 COMPUTERS FOR THE VERY BEGINNER (F,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. No prerequisite.

**CAP 101 INTERNET SEARCHING & RESEARCHING (Variable) 1(1-0-0)**

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 (W) 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 103      MACINTOSH COMPUTERS FOR THE BEGINNER      1(1-0-0)**

Computers can be intimidating for those new to their use. This course is designed as a very basic introduction to Macintosh hardware and software. Students will become comfortable with the Mac, begin to appreciate its capacity to make some tasks much easier and realize that computing can even be fun. No prerequisite.

**CAP 125      MICROSOFT EXCEL I (OFFICE 2003)      (F,W,S)      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      (W)      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,W)      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      (S)      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      (W)      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      (W)      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:** CAP 135 or equivalent

**CAP 215      ADVANCED DIGITAL AUDIO AND VIDEO      (W)      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: CAP 160

**CAP 220      PRODUCTION ART WITH ADOBE CREATIVE SUITE      (W)      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      (Variable)      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,S)      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: MATH 110  
GENERAL EDUCATION DISTRIBUTION AREA: Science

**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: CEM 101 or equivalent  
GENERAL EDUCATION DISTRIBUTION AREA: Science

**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.



**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: 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 INTRODUCTION TO PC OPERATING SYSTEMS 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: CIS100

**CIS 125 PC HARDWARE 3(3-0-0)**

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: 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: CIS 100 or permission of the instructor

**CIS 145 ePORTAL DEVELOPMENT (F) 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: CIS 105 or any other programming language

**CIS 150 INTRODUCTION TO DATABASE ADMINISTRATION (F) 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: 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: 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.

PREREQUISITE(S): CIS 100 and at least one of the following: CIS 104, CIS 105 or CIS 115

**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: CIS 105

**CIS 225 INTRODUCTION TO JAVA PROGRAMMING I (S) 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: CIS 100

**CIS 240 LINUX/UNIX SYSTEM ADMINISTRATION (Variable) 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: CIS 140

**CIS 280 INTERNSHIP/PROJECT (Variable) 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: 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 (Variable) 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: 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,W) 3(3-0-0)**

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 (F) 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 (F) 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 (Variable) 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.

PREREQUISITES: ENG 111, CJ 101, CJ 102, CJ 120, and CJ 130

**CJ 202 CRIMINAL INVESTIGATION (W) 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 (F) 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            (W)            3(3-0-0)**  
 A study of special problems, theories and developments in the criminal justice system. Specific case studies are explored.  
 PREREQUISITES: CJ sequence

**CJ 217            CRIMINAL PROCEDURES            (W)            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            (F)            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            (F,W,S)            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 REQUIREMENT FOR AA & AS DEGREE PROGRAMS: Communications

**COM 121            ORAL INTERPRETATION            (W)            3(3-0-0)**  
 This course is an introduction to the analysis, interpretation, rehearsal, and oral performance of literature. Students work with selections of prose, poetry, and drama written for adults and children.

**COM 130            INTRODUCTION TO AMERICAN SIGN LANGUAGE            (F,W)            3(3-0-0)**  
 An entry-level course designed to teach students basic sign language skills. The class begins with the manual alphabet, adding formal signs weekly in categories. Each class session students are given opportunities to develop their signing and interpreting skills through group activities. Discussion of deaf culture, causes of hearing impairment, and other related issues are ongoing throughout the semester.  
 PREREQUISITE: Students must have the ability motorically to use one or both hands to form manual signs and the manual alphabet.

**COM 170            INTERPERSONAL COMMUNICATION            (F,W,S)            3(3-0-0)**  
 This course is designed to explore and develop an individual's communication skills within the context of interpersonal relationships, small groups and society as a whole. Over the course of the semester, a variety of educational approaches may be used including writing, speaking, collaborative and independent learning, role playing, independent research and written reports.

**COM 225            NONVERBAL COMMUNICATION            (F)            3(3-0-0)**  
 Focuses on history, types and functions of nonverbal communication, allowing students to gain a stronger awareness of their own and others' nonverbal behaviors and become more effective participants in the social interaction process.

**COM 235      COMMUNICATION, GENDER AND CULTURE      (F)      3(3-0-0)**

Focuses on the interactive and reciprocal relationship between gender and communication in contemporary American society. We will explore how communication shapes, reinforces, and resists definitions of gender and, simultaneously, how communication directly influences how we live gendered lives. You will learn the ways gender is communicated (how we come to know what it is to be a woman or a man), the multiple ways humans communicate within and across gender lines (how and why we express ourselves differently as men and women), and the role gender plays in friendship, family and romance. Gender issues relative to education, organizations, the mass media, and power and violence will also be explored

**COM 250      SMALL GROUP COMMUNICATIONS      (Variable)      3(3-0-0)**

A study of the theories, principles, and practices that govern small-group communication in business, government, and the wider community. The course will primarily deal with task-oriented small groups – groups with a specific objective to achieve, information to share, a problem to solve, or a decision to make. Topics include group formation, team building, group roles in decision-making, leadership, and conflict resolution. An introductory course in communications is recommended before taking this course.

**COM 295      FIELD STUDIES IN COMMUNICATION      (Variable)      5(5-0-0)**

Offers students opportunities to explore topics and activities in communication 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.

**COM 297      SPECIAL TOPICS IN COMMUNICATIONS      (Variable)      3(3-0-0)**

Special Topics courses provide opportunities for focused study with full-time or adjunct instructors teaching in their areas of expertise.

## **ECE – Early Childhood Education**

**ECE 200      FOUNDATIONS OF EARLY CHILDHOOD EDUCATION      (F,W,S)      3(3-0-0)**

Provides an overview of the early childhood education profession. Topics include historical and theoretical perspectives, types of programs and curricula, developmentally appropriate practices, use of assessment tools, quality standards in programs, guidance and management strategies, family involvement, public policy and inclusion laws, and the NAEYC Code of Ethical Conduct.

**(formerly ECE 105)**

**ECE 205      CURRICULUM AND METHODS      (F,W,S)      3(3-0-0)**

Students will plan, implement, and evaluate developmentally appropriate curriculum and teacher practices designed to support the physical, social emotional, cognitive, language and aesthetic development of children. Topics covered include child centered learning, use of themes and interest areas, elements of an anti-bias curriculum, child management techniques, and informal and formal assessment tools and strategies.

**(formerly ECE 110)**

**ECE 210      INFANTS AND TODDLERS      (F,W)      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 215 CHILD GUIDANCE AND COMMUNICATION SKILLS (F,W) 3(3-0-0)**

The study of the theoretical foundations of child guidance with skill building in the practical application of guidance techniques and strategies. Topics covered include family systems theory, individual and group management techniques from birth to age 8, non-verbal communication, issues of diversity, problem-solving and conflict resolution. Students will also examine and expand their repertoire of interpersonal communication dynamics.  
(formerly ECE 130)

**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 225 ADMINISTRATION OF PROGRAMS (F,W,S) 3(3-0-0)**

Students will study the basic principles of the financial, legal, supervisory, and administrative procedures used in early childhood centers. Topics to be covered in class include: policies, goal setting, safety, health and nutrition, requirements for licensing, budget and record keeping, program development, parent/school communication, personnel management and professionalism.  
(formerly ECE 120)

**ECE 282 ADMINISTRATION OF PROGRAMS (F,W) 7(3-0-12)**

A capstone course in which the student integrates current early childhood issues and trends with classroom teacher practices. Students are expected to have a sound understanding of child development theory and practice and will spend 3 hours a week in a college seminar and 12 hours per week in a college approved early childhood setting serving infants and toddlers, preschoolers and/or school-age children (K-3). Students are expected to observe, participate, and work effectively with children from birth to age eight under the supervision of a qualified professional. Seminar emphasis is on discussion, application of skills in the classroom, and professional critique of the practicum experience.  
PREREQUISITES: Completion of or co-enrollment in all ECE courses

**ECE 299 INDEPENDENT STUDY - ECE (Variable) 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,S) 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

**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.

## 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: sophomore standing.

### **ED 299 INDEPENDENT STUDY – EDUCATION (Variable) 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(1-0-0)**

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. Upon successful completion of this course, students are qualified to receive the appropriate certificate from either the American Red Cross (CPR for the Professional Rescuer and Standard First Aid) or the American Heart Association (Basic Life Support for Healthcare Providers and Heartsaver First Aid).

### **EMS 105 MEDICAL FIRST RESPONDER (Variable) 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,S) 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.

PREREQUISITES: 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 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 (F) 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.

PREREQUISITES: EMS 110 with a C or above and the ability to sit for Michigan Basic EMT Licensure

**EMS 130      PARAMEDIC 2      (W)      9(6-4-4)**

A continuation of EMS 120 addressing venous access and medication administration, airway management, patient assessment, and traumatic emergencies.

PREREQUISITE: EMS 120 with a "C" or above within one year of registration for EMS 130.

**EMS 220      PARAMEDIC 3      (S)      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: EMS 130 with a C or above

**EMS 230      PARAMEDIC 4      (F)      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: EMS 220 with a C or above

**EMS 270      PARAMEDIC FIELD INTERNSHIP      (W)      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.

PREREQUISITES: 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: 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: 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: COMPASS score of 63 or higher, or ACT score of at least 18

GENERAL EDUCATION REQUIREMENT FOR AA & AS DEGREE PROGRAMS: English Composition

**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: ENG 111

GENERAL EDUCATION REQUIREMENT FOR AA & AS DEGREE PROGRAMS: English Composition

**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

**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.

PREREQUISITES: ENG 111 and 112

**ENG 213 SHAKESPEARE I (Variable) 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: ENG 112 or ENG 130

**ENG 214 SHAKESPEARE II (Variable) 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: ENG 112 or ENG 130

**ENG 215 INTRODUCTION TO POETRY (F) 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.

**ENG 217      ADVANCED WRITING      (F)      3(3-0-0)**

Applies the rhetorical and critical methods of composition learned in English 112 to the study and production of the essay form. The course will focus on reading and writing traditional essays, contemporary popular essays, and academic essays.

PREREQUISITE: ENG 112

**ENG 220      CREATIVE WRITING II      3(3-0-0)**

A course designed to build on students' current fiction and non-fiction writing skills. Emphasis is placed on the development and refinement of students' works in fiction, features for periodicals and poetry. Manuscript submission procedures are examined.

PREREQUISITE: ENG 210 or permission of the instructor.

**ENG 221      BRITISH LITERATURE I      3(3-0-0)**

A survey of English literature with emphasis on major writers from Chaucer to Pope.

PREREQUISITE: ENG 112 or ENG 130

**ENG 222      BRITISH LITERATURE II      (Variable)      3(3-0-0)**

A survey of British literature with emphasis on major writers from Blake to the present time.

PREREQUISITE: ENG 112 or ENG 130

**ENG 231      AMERICAN LITERATURE I      (F)      3(3-0-0)**

A survey of literary works that formed the basis for American literary art, from the Colonial Period to the Civil War.

PREREQUISITE: ENG 112 or ENG 130

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**ENG 232      AMERICAN LITERATURE AFTER THE CIVIL WAR      (W)      3(3-0-0)**

A survey of literary works produced from the Civil War to the present in America. The development of American themes and genre is examined as a reflection of an emerging American literary identity.

PREREQUISITE: ENG 112 or ENG 130

**ENG 240      INTRODUCTION TO CHILDREN'S LITERATURE      (F,W,S)      3(3-0-0)**

Surveys literature for children in the elementary grades. Students explore the role of literature for children and engage in various issues/debates within the field. Developing perceptive criteria for evaluating children's literature will be a central component. Other topics include the history, central themes, and genres of children's literature.

PREREQUISITE: ENG 112 or ENG 130

**ENG 241      WORLD LITERATURE, ANCIENT-1700      (F,W)      3(3-0-0)**

A survey of literary works of world cultures from approximately 600 BCE to 1700. Cultural influences and thematic evolution through various historical periods are examined.

**ENG 242      WORLD LITERATURE, 1700-PRESENT      (Variable)      3(3-0-0)**

A survey of literary works of world cultures from 1700 to the present. Cultural influences and thematic evolution through various historical periods are examined.

**ENG 244      MULTICULTURAL LITERATURE      (W)      3(3-0-0)**

An introduction to the literature of American minority cultures. Works by (but not limited to) Asian, African American, Native American, Hispanic, Jewish/Yiddish authors will be examined. Students learn the literary tools that aid in discovering and appreciating diverse themes within a contemporary context.

PREREQUISITE: ENG 112 or ENG 130.



**ENG 245 INTRODUCTION TO LINGUISTICS 3(3-0-0)**

Linguistics is the scientific study of language; it focuses on the descriptive rather than prescriptive approach to language. In this course, students will explore what language is and how it is represented in the mind. They will consider the following questions: How did languages originate? Is language unique to humans? Do we think differently depending on the language we speak? What role do parents and teachers play in language acquisition? 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.

**ENG 251 CONTEMPORARY LITERATURE I (F) 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: ENG 112 or ENG 130

**ENG 252 CONTEMPORARY LITERATURE II (Variable) 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: ENG 112 or ENG 130

**ENG 255 MODERN MYTHOLOGY: TOLKIEN & LEWIS (Variable) 3(3-0-0)**

An examination of a selection of works by two of the most popular fantasy writers of the 20<sup>th</sup> century.

**ENG 290 INTRODUCTION TO WRITING FOR FILM & VIDEO (F) 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: ENG 111

**ENG 295 FIELD STUDIES IN ENGLISH (Variable) 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: Permission of the instructor

**ENG 299 INDEPENDENT STUDY ENGLISH (Variable) 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: MATH 112 or MATH 120 or higher

**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 (F) 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: MATH 112 or MATH 120 or higher

**ENT – Entrepreneurship****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 (F) 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 (W,S) 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 (W) 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 (S) 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 (F,S) 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 (W) 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 CREATIVE BLOCKBUSTING & PROBLEM SOLVING (Variable) 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: Science

**ESC 110 ENVIRONMENTAL GEOLOGY (F,S) 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: Science

**ESC 121 PHYSICAL GEOLOGY (F) 4(3-3-0)**

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: Science

**ESC 122 THE EARTH THROUGH TIME (W) 4(3-3-0)**

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: ESC 101, ESC 110 or ESC 121

GENERAL EDUCATION DISTRIBUTION AREA: Science

**ESC 150 WEATHER AND CLIMATE (W) 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: MATH 110

GENERAL EDUCATION DISTRIBUTION AREA: Science

**ESC 201 FOUNDATIONS OF ASTRONOMY (F) 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: MATH 112 or MATH 120 or higher

GENERAL EDUCATION DISTRIBUTION AREA: Science

**ESC 210 REMOTE SENSING (W) 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

GENERAL EDUCATION DISTRIBUTION AREA: Science

**ESC 230 MINERALOGY AND PETROLOGY (F) 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: ESC 101, or ESC 110, or ESC 121, or ESC 122

GENERAL EDUCATION DISTRIBUTION AREA: Science

**ESC 295 FIELD INVESTIGATIONS IN GEOLOGY (Variable) 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: ESC 101 or ESC 110 or ESC 121 or ESC 122

**ESC 297 SPECIAL TOPICS IN EARTH SCIENCE (Variable) 3(3-0-0)**

Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.



## **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.

**GEO 121      WORLD GEOGRAPHY      (F,W,)      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

**GEO 150      CARTOGRAPHY      (W)      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 (F,W) 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 (W) 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: Introduction to Geographic Information Systems I

**GIS 130      ADVANCED CONCEPTS IN GIS      (F)      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: GIS 120

**GIS 150      GLOBAL POSITIONING SYSTEMS      (S)      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      (Variable)      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.



## HST - History

**HST 131 HISTORY OF U.S. 1607-1877 (F,W,S) 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

**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.

**HST 140 CELTS AND NATURE (F) 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.

**HST 141 CULTURE & MYTH: QUEST FOR THE GRAIL (F,W) 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.

**HST 170 NON-VIOLENT ACTIVISM (W) 3(3-0-0)**

The tools and the history of nonviolent activism. From Gandhi to the global democracy uprisings today, the world has witnessed a century of often successful nonviolent people's movements for social and environmental change. Students will learn nonviolent communication and conflict resolution techniques, while studying the rich (often underestimated) history of nonviolence as "a force more powerful" in reshaping our world.

**HST 205 THE CIVIL WAR (Variable) 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.

**HST 220 CULTURAL HISTORY OF NATIVE AMERICAN (Variable) 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.

**HST 221 CULTURAL HISTORY OF NATIVE AMERICAN II (Variable) 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 (Variable) 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) 3(3-0-0)**

A study of the social, economic and cultural development of Europe from prehistoric times to the beginning of the 16<sup>th</sup> century. Special attention is given to the rise and fall of civilizations and their impact on modern development.

PREREQUISITE: Minimum 71 COMPASS Reading score or minimum 17 ACT Reading score, or ENG 111

**HST 232 SURVEY OF LATER WESTERN CIVILIZATION (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 19<sup>th</sup> century. Special attention is given to colonial and national developments and their influence on modern times.

PREREQUISITE: Minimum 71 COMPASS Reading score, or minimum 17 ACT Reading score, or ENG 111.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**HST 235 WORLD WAR II (Variable) 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 (F) 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 (Variable) 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 260 INNOVATION, INVENTION AND ENTREPRENEURSHIP (Variable) 3(3-0-0)**

Examines the history of entrepreneurship and innovation as an integral part of the American experience. The course will also look at how innovation happens, the origins of the critical idea, and the obstacles to innovation. In addition this course will discuss sustaining innovation in the 21st century.

**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 19<sup>th</sup> and 20<sup>th</sup> century history.

**HST 270 MICHIGAN HISTORY (F) 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.

**HST 295 FIELD STUDIES IN HISTORY (Variable) 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: Permission of the instructor.

**HST 297 SPECIAL TOPICS IN HISTORY (Variable) 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 (Variable) 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 (Variable) 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 (Variable) 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: HTM 121

**HTM 140 INTRODUCTION TO GAMING MANAGEMENT (Variable) 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 (Variable) 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 (Variable) 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: HTM 140

**HTM 245 CASINO OPERATIONS ANDMANAGEMENT II (Variable) 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: HTM 240

**HTM 250 CASINO RISK MANAGEMENT (Variable) 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: 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. Prerequisites are determined by the curriculum in which the student is enrolled.

## **IT – Information Technologies**

**IT 101 NETWORK+ (Variable) 3(3-0-0)**

Introduces computer 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 (Variable) 2(2-0-0)**

Introduces the terminology and components used in small Cisco networks. TCP/IP will be used in static and dynamic networks. Binary and decimal representations of Internet addresses will be used to in a routed and switched system to divide networks into smaller subnets of various sizes. Cisco routers and switches will be used to conduct the lab exercises.

**IT 112 WINDOWS WORKSTATIONS (Variable) 2(2-0-0)**

Introduces a variety of Microsoft Windows Workstations through exploration, demonstrations, discussion, and hands-on lab exercises. You will install, administer and troubleshoot the operating systems in a variety of network configurations and virtual environments. You will use centralized served based systems to manage Windows components.

**IT 122 WINDOWS SERVERS (Variable) 2(2-0-0)**

Introduces Microsoft Windows Server operating systems through exploration, demonstrations, discussions, and hands-on lab exercises. A variety of network configurations including virtual environments will be used to configure and administer a variety of server operating systems. Using Active Directory Services, you will configure backups, Split Brain DNS, DHCP, and Windows domains.  
PREREQUISITE: IT 101,102 and 112

**IT 130 MICROSOFT WINDOWS 2000 NETWORK INFRASTRUCTURE (Variable) 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.  
PREREQUISITE: IT 122



**IT 190                    CISCO LAN SWITCHING & WIRELESS                    (Variable)                    3(3-0-0)**

The primary focus of this course is on LAN switching and wireless LANs. You will develop an understanding of how a switch communicates with other switches and routers in a small- or medium-sized business network to implement VLAN segmentation. You will also learn how to integrate wireless appliances into a LAN. This is the 3<sup>rd</sup> course of 3 preparing you for the ICND1 section of the Cisco Certified Network Associate (CCNA) Certification. PREREQUISITE: IT 180

**IT 199                    HELP DESK INTERNSHIP                    (Variable)                    4(0-0-16)**

Provides the students with hands on experience in a computer support environment. The student will perform end user support activities. All activities will be tracked with a typical help desk ticketing software. The routine activities required will range from hardware and wiring installations and software upgrades to virus removal and simple domain account activities like resetting passwords. The student will be expected to work approximately 16 hours per week and is required to take the Comp TIA A+ Certification exam. PREREQUISITE: Instructor permission

**IT 201                    CISCO WIDE AREA NETWORKS                    (Variable)                    3(3-0-0)**

The Cisco Certified Network Associate (CCNA) Exploration Routing Protocols and Concepts course will help you develop an understanding of how a router learns about remote networks and determines the best path to those networks. Both static routing and a variety of dynamic routing protocols will be used in hands on experiments. You will use simulators and hands on experiments to solidify knowledge gained in online tutorials. This course will prepare you for the ICND2 section of the CCNA Certification. PREREQUISITE: IT 190

**IT 221                    DESIGNING COMPUTER NETWORKS                    (Variable)                    6(6-0-0)**

Introduces designing network infrastructures, directory services, and security for a mixed operating system network. You will learn how to analyze current business environments and create secure solutions for multiple purpose networks. To demonstrate your ability you will implement the pilot portion of your design in the lab. PREREQUISITE: IT 122, IT 130 and IT 150

**IT 222                    NETWORK SECURITY FUNDAMENTALS                    (Variable)                    3(3-0-0)**

Introduces the core security principles, confidentiality, integrity, and availability. The topics covered include different security layers, authentication, authorization, and accounting. Students will learn how to harden networks, servers and clients using policies, hardware and software. PREREQUISITE: IT 101 and 112

**IT 270                    CAPSTONE PROJECT                    (Variable)                    1-6(Variable)**

In this capstone course you will design and implement a network that meets a given set of business needs. You will integrate the Internet with a private network and a subset of internal and external websites, email, routers and virtual private networking capabilities. During this course you will provide networking services to a non-profit organization. PREREQUISITE: Permission of the instructor

**IT 271                    CERTIFICATION PREPARATION, MICROSOFT                    (Variable)                    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: Instructor Permission

**IT 272 CERTIFICATION PREPARATION, CISCO (Variable) 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: Instructor Permission

**IT 280 INTERNSHIP/PROJECT (Variable) 1-6(Variable)**  
 In this capstone course you will be placed in an internship position with an employer in the computer networking or a related field. During your internship you will develop a portfolio of your education and experiences.  
 PREREQUISITES: Instructor Permission

**IT 297 SPECIAL TOPICS IN INFORMATION TECHNOLOGY (Variable) 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: Permission of the instructor

**IT 299 IT INDEPENDENT STUDY (Variable) 1-6(Variable)**  
 This capstone course offers you the opportunity to conduct in-depth studies in your fields of interest. You will make arrangements to conduct a project under the supervision of an instructor of your choice in the discipline the project will cover. This course can be used to fulfill the requirements of other IT or CIS courses when arranged with the program coordinator and the objectives of that course are met.  
 PREREQUISITE: Instructor Permission

**JRN – Journalism**

**JRN 102 NEWS WRITING (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 (S) 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 (Variable) 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 (Variable) 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: Permission of the instructor

## LA – Legal Assistant

**LA 200            LAW OFFICE MANAGEMENT & LEGAL ETHICS            (F)            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            (W)            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            (F,S)            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            (F,W)            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            (W)            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            (W)            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            (W)            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            (Variable)            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.

**M – 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.

PREREQUISITES: B 200 AND M 200 plus (9) additional hours of accounting, business, marketing, management, or economics

**M 285 WORK BASED LEARNING- MARKETING (Variable) 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. Prerequisites are determined by the curriculum in which the student is enrolled.

**M 299 MARKETING, INDEPENDENT STUDY (Variable) 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.



## MATH – Mathematics

**NOTE:** North Central's mathematics courses have been revised and renumbered effective with the Fall 2012 semester. The changes will match instruction more closely to student needs and provide a more logical numbering sequence. Starting in the fall, courses will have the alpha designator MATH instead of MTH.

A new course, Pre-Algebra (MATH 090), will get students ready for collegiate level mathematics. Mathematical Reasoning (MATH 100) will introduce students to the spirit of mathematics and help them become skilled math users and consumers. Beginning-Intermediate Algebra I and II (MATH 110 and 112) will allow more time for in-depth coverage of math topics and prepare students for most transfer programs. Intermediate Algebra (MATH 120) will serve students who have a sufficient algebra background and need intermediate algebra to meet their program needs. All other courses will remain the same, but with new numbers.

Go to the college website [www.ncmich.edu](http://www.ncmich.edu) for a renumbering guide. See an advisor for assistance in determining which courses to take.

There will be no negative impact on students who have taken courses with the MTH designator.

### **MATH 090      PRE-ALGEBRA      (F,W)      4(4-0-0)**

This course is designed for students who need to develop algebraic skills before taking Beginning/Intermediate Algebra (MATH 110) or Mathematical Reasoning (MATH 100). Topics covered include integers, simplifying variable expressions, solving linear equations, fractions, applications involving proportions and percents, and an introduction to graphing. Additional topics may be assigned by the instructor as deemed necessary for student success. Students will work independently on content until mastery is attained. This course is offered on a pass-fail-progress status and does not count toward graduation and will not transfer.

PREREQUISITE: COMPASS Reading score of 62 or above, ACT Reading score of 13 or above

### **MATH 100      MATHEMATICAL REASONING      4(4-0-0)**

This is a survey course of mathematical ideas and mathematical systems. The course is designed to introduce the student to the spirit of mathematics and turn them into skilled math users and consumers. Core topics include arithmetic reasoning, problem solving, mathematical modeling, management science, mathematics of finance, logic, geometry and statistics. This course is designed to serve as a terminal course for students who choose to pursue an academic career not requiring higher mathematics or statistics.

PREREQUISITE: MATH 090 with a grade of "C" or higher or COMPASS. Mathematics score of 43 or ACT Math score of 17.

### **MATH 110      BEGINNING AND INTERMEDIATE ALGEBRA (PART I) (F,W)      4(4-0-0)**

This is the first of two courses designed for the student placing into Beginning Algebra and needing Intermediate Algebra. The material covered includes operations with real numbers, solving linear equations and systems of equations, problem solving, graphing, exponents, and factoring. Students passing this course with a grade of C or better will enroll in Beginning and Intermediate Algebra (Part II). *Students passing Beginning and Intermediate Algebra (Parts I and II) will receive the following credit distribution: MATH 120 (4 credits) and Math Elective (4 credits). Students passing Beginning and Intermediate Algebra (Part I) but, not passing Beginning and Intermediate Algebra (Part II) will receive four Math Elective credits.*

PREREQUISITE: MATH 090 with a grade of "C" or higher or COMPASS Math Score of 43-145 or ACT Math score of 17-20.

**MATH 112 BEGINNING AND INTERMEDIATE ALGEBRA (PART II) (F,W) 4(4-0-0)**

This is the second of two courses designed for the student placing into Beginning Algebra and needing Intermediate Algebra. The material covered includes rational expressions and equations, functions, quadratic equations, radicals and radical equations, absolute value equations and inequalities, and exponential and logarithmic equations. *Students passing Beginning and Intermediate Algebra (Parts I and II) will receive the following credit distribution: MATH 120 (4 credits) and Math Elective (4 credits). Students passing Beginning and Intermediate Algebra (Part I) but, not passing Beginning and Intermediate Algebra (Part II) will receive four Math Elective credits.*

PREREQUISITE: MATH 110 with a grade of "C" or higher.

GENERAL EDUCATION REQUIREMENT FOR AA DEGREE PROGRAMS: Mathematics

**MATH 120 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. Emphasis will be on utilizing these skills in problem solving situations.

PREREQUISITE: COMPASS Mathematics score of 146 or ACT Math score of 21.

GENERAL EDUCATION REQUIREMENT FOR AA DEGREE PROGRAMS: Mathematics  
(formerly MTH 113)

**MATH 125 MATHEMATICS FOR ELEMENTARY TEACHERS I (F) 3(3-0-0)**

The first of a sequence of two courses 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): MATH 110 (or equivalent) with a grade of "C" or higher or COMPASS mathematics score of 146 or higher, ACT mathematics score of at least 21.

(formerly MTH 101)

**MATH 126 MATHEMATICS FOR ELEMENTARY TEACHERS II (W) 3(3-0-0)**

The second of a sequence of two courses designed for students majoring in elementary teaching. Topics include probability, statistics and data analysis, geometry (concepts and measurement, constructions and transformations). Emphasis is placed on the use of physical representations (manipulatives) for teaching mathematics.

PREREQUISITE: MATH 125 (or equivalent) with a grade of "C" or higher.

(formerly MTH 102)

**MATH 130 COLLEGE ALGEBRA (F,W) 4(4-0-0)**

A review of the fundamental concepts of algebra with applications. Topics include 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; probability and counting arguments. Use of graphing calculators and current technology will be emphasized.

PREREQUISITE: MATH 112 with a grade of "C" or higher or COMPASS algebra score of 71 or higher, ACT mathematics score of at least 23

GENERAL EDUCATION REQUIREMENT FOR AS DEGREE PROGRAMS: Mathematics  
(formerly MTH 119)

**MATH 140 TRIGONOMETRY (W) 4(4-0-0)**

A review of geometry and algebra concepts necessary for trigonometry and prepare for further study in calculus. Trigonometric functions will be examined using the right triangle and unit circle concept. Graphs of trigonometric functions and their inverses; trigonometric identities and equations; and applications of trigonometry will be studied. In addition the course will include the study of vectors and their applications; polar coordinates and graphs of polar equations with applications; and parametric equations and their applications. Use of graphing calculators and current technology will be emphasized.

PREREQUISITE: MATH 130 with a grade of "C" or higher or COMPASS college algebra score of 46 or higher, ACT mathematics score of at least 26.

**(formerly MTH 123)**

**MATH 150 ANALYTIC GEOMETRY & CALCULUS I (F) 5(5-0-0)**

The first course in a three semester sequence in differential and integral calculus. It is an introduction to analytic geometry, limits, continuity, differentiation of algebraic and transcendental functions, applications of derivatives, integration and applications of definite integrals. Use of graphing calculators and current technology will be emphasized.

PREREQUISITE: MATH 140 with a grade of "C" or higher, or COMPASS Trigonometry score of 46 or higher, or ACT Math score of at least 28.

**(formerly MTH 122)**

**MATH 210 ANALYTIC GEOMETRY & CALCULUS II (W) 5(5-0-0)**

The second course in a three semester sequence in differential and integral calculus. The course places emphasis on integration techniques and applications. Topics covered include techniques of integration, applications of the definite integral, an introduction to differential equations, parametric equations, polar coordinates, indeterminate forms, improper integrals, and infinite sequences and series. Vectors will be introduced in both two and three dimensional applications. Use of graphing calculators and current technology will be emphasized.

PREREQUISITE: MATH 150 (or equivalent) with a grade of "C" or higher.

**(formerly MTH 211)**

**MATH 215 ANALYTIC GEOMETRY & CALCULUS III (Variable) 4(4-0-0)**

The third course in a three semester sequence in differential and integral calculus. The course introduces students to two main areas of study: multivariable calculus and vector calculus. Topics included in the first area are partial derivatives, multiple integrals, directional derivatives and gradients, maximums and minimums, cylindrical and spherical coordinates, lines, planes, and quadric surfaces. Topics included in the second area are dot and cross products, vector valued functions, vector fields, line and surface integrals, curl and divergence, Green's Theorem and Stokes' Theorem. Use of graphing calculators and current technology will be emphasized.

PREREQUISITE: MATH 210 (or equivalent) with a grade of "C" or higher.

**(formerly MTH 212)**

**MATH 225 DIFFERENTIAL EQUATIONS (Variable) 3(3-0-0)**

A course in solving first and second order differential equations with some attention to the  $n^{\text{th}}$  order equation with constant coefficients. Emphasis is on equations that have applications in the physical sciences and engineering. Topics in differential equations include: linear, separable, homogeneous and exact equations, systems of differential equations, solutions by series, numerical methods, and the Laplace transform. Use of graphing calculators and current technology will be emphasized.

PREREQUISITE: MATH 210 (or equivalent) with a grade of "C" or higher.

**(formerly MTH 215)**

**MATH 235      LINEAR ALGEBRA      (Variable)      3(3-0-0)**  
 An introductory course to linear algebra bridging the world of axiomatic or postulational mathematics and the world of applied mathematics. Topics include matrices, determinants, systems of equations, vector spaces, inner product spaces, bases, linear transformations, eigenvectors and eigenvalues, and applications. Use of graphing calculators and current technology will be emphasized.  
 PREREQUISITE: MATH 210 (or equivalent) with a grade of "C" or higher.  
 (formerly MTH 250)

**MATH 297      SPECIAL TOPICS - MATHEMATICS      (Variable)      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.

**MATH 299      INDEPENDENT STUDY      (Variable)      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.

**MU 112      PRIVATE VOICE INSTRUCTION      (Variable)      1(0-2-0)**  
 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 three credits.

**MU 115      PRIVATE INSTRUMENTAL INSTRUCTION      (Variable)      1(0-2-0)**  
 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 three credits.

**MU 117      ORCHESTRA I      (Variable)      1(0-2-0)**  
 A large size instrumental organization that performs a comprehensive selection of music styles in concert. Orchestra I may be repeated up to three credits and is open by audition to any student. Must have experience playing a band or string instrument.

**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

**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      (Variable)      3(3-0-0)**  
 A continuation of Music Theory I.  
 PREREQUISITE: MU 130 or MU 125

**MU 141 CONTEMPORARY FINGER-STYLE GUITAR (F) 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 (W) 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 (Variable) 3(3-0-0)**  
Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

### **NISH – Anishnaabemowin**

**NISH 100 THE WAGANAKISING ODAWAK (Variable) 3(3-0-0)**  
An introduction to the history, culture, language, and governance of the local Odawa people. Social conflicts between tribalism and capitalism, relations with other sovereign nations, casino and Odawa employment law, and the practice of storytelling are explored.

**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.  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**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: NISH 111 or permission of the instructor.  
GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**NISH 150 ANISHNAABEK HEALTH TOPICS 3(3-0-0)**  
An introduction to Anishinaabek perspectives on health topics. This course examines the role of Traditional medicine and its relationship to Western medicine. Topics discussed include common diseases and their traditional responses, aspects of nutrition, wellness and family tradition in the healing process, and the importance of a healthy community and spirituality in the Anishinaabek perspective.

**NISH 190 TRIBAL NATURAL RESOURCE MANAGEMENT 3(3-0-0)**  
Tribes have become increasingly important resource managers. Tribes are responsible for the management of millions of acres land throughout the nation. The roles and the extent of tribal natural resource management is complicated and varies according to Treaties, Court Orders, location and can be influenced, increased or eliminated based on the outcome of court cases or federal legislation. This course is intended to expose the student to the court cases, treaties, laws, and agreements that govern tribal natural resource management in Michigan. And to shed light on the philosophy behind tribal natural resource management. This course will also touch on the types of management and problem solving strategies necessary or available to natural resource managers. Field trips are an essential part of this class.

**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: NISH 112

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**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: NISH 211

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**NISH 245 ANISHINAABEMOWIN LINGUISTICS (Variable) 1(1-0-0)**

The lens of the linguist will be used to analyze Anishinaabemowin by studying the language rather than learning the language. General linguistic topics will be explored prior to examining Anishinaabemowin the following specific topics: phonology, morphology, syntax, semantics, language acquisition, and pragmatics.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**NUR – Nursing****NUR 110 INTRODUCTION TO HEALTH CONCEPTS (F) 10 (7-5-4)**

Introduces the concepts of health within the three domains of knowledge, skills and attitudes. Emphasis is placed on the concepts within the three domains including medication administration, assessment, nutrition, hemodynamics, tissue integrity, mobility, comfort, acid-base balance, communication, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, safety and quality improvement. Upon completion of this course, students will be able to provide safe basic care to individual clients while incorporating the concepts in this course.

**NUR 130 HEALTH SYSTEM CONCEPTS (F) 2(2-0-0)**

Introduces the concepts of health within the three domains of knowledge skills, and attitudes. Emphasis is placed on the concepts of patient-centered care, advocacy, diversity, family, gerontological nursing, therapeutic communication, spirituality, end of life, values of the profession, legal issues, teaching and learning, collaboration, managing care and quality improvement. Upon completion of this course, students will be able to incorporate all concepts of this course into the care of all patients within a variety of health care settings.

Corequisite NUR 110.

**NUR 150 HEALTH-ILLNESS CONCEPTS (W) 5(3-0-6)**

Introduces the concepts of health within the three domains of knowledge, skills and attitudes. Emphasis is placed on the concepts within the three domains including cellular regulation, oxygenation, infection, stress/coping, health-wellness, illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Priority areas of care will include appropriate care of patients with cancer and cancer screening, management of diabetes, perioperative care, and nosocomial infection prevention and surveillance.

Corequisite NUR 170.

**NUR 170      HOLISTIC HEALTH CONCEPTS      (W)      5(3-0-6)**

Designed to further develop the concepts within the three domains of knowledge, skills and attitudes. Emphasis is placed on the concepts of sensory perception, stress-coping, sexuality, mood-affect-cognition, self concept, violence, health-wellness-illness, professional behaviors, caring interventions and safety. Priority areas of care will include dependencies, screening and treatment of major depression, and treatment of severe and persistent mental illness.

Corequisite NUR 150.

**NUR 210      FAMILY HEALTH CONCEPTS      (F)      5(3-0-6)**

Designed to further develop the concepts within three domains of knowledge, skills and attitudes. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety and advocacy. Priority areas of care will include appropriate treatment of asthma in children and adolescents, children with special needs who may be at risk for chronic physical and developmental conditions, immunizations in children and adults, pregnancy and childbirth, and disease prevention in healthy populations.

Corequisite: NUR 230.

**NUR 230      ACUTE CARE CONCEPTS      (F)      5(3-0-6)**

Further develops the concepts within the three domains of knowledge, skills and attitudes. Emphasis is placed on the concepts of grief-loss, violence, health-illness-wellness, collaboration, managing care, safety, advocacy and evidence based practice. Priority areas of care will include well to frail elder management, sensory perception, maximizing mobility, and developing advanced care plans related to end-of-life and chronic care conditions. Obesity as an emerging area which affects a broad range of individuals will be emphasized. Upon completion of this experience, students will be able to provide advanced holistic care to individuals and their families in a variety of acute care settings.

Corequisite: NUR 210.

**NUR 250      MANAGEMENT OF CARE CONCEPTS      (F)      1(1-0-0)**

Focuses on health care management within the three domains of knowledge skills, and attitudes. Emphasis is placed on the concepts of managing patient centered care, advocacy, legal issues, collaboration, resource management, and quality improvement within the context of the health care environment. Upon completion of this course, students should be able to provide holistic care as part of a multidisciplinary team to groups of individual patients and families while incorporating the concepts of this course.

Corequisites: NUR 210, NUR 230.

**NUR 270      COMPLEX CARE CONCEPTS      (W)      11(6-0-15)**

Assimilates the concepts within three domains of knowledge, skills and attitudes. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, health care systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality individualized entry level nursing care to a group of patients.

## **OAS – Office Administrative Services**

**OAS 101      CUSTOMER SERVICE      (F,W,S)      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 116      MEDICAL TERMINOLOGY      (F,W,S)      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. PREREQUISITES: OAS 116, OAS 122, OAS 224.

**OAS 121      COMPUTER KEYBOARDING/SOFTWARE FUNDAMENTALS (F,W,S) 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,W)      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: OAS 121 or keyboard speed of 30 wpm and general word processing knowledge.

**OAS 141      FILING AND RECORDS MANAGEMENT      (F,W,S)      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,S)      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      (F,W)      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      (Variable)      (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.

PREREQUISITES: OAS 116, OAS 117, OAS 122, and OAS 224.



**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 a 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: OAS 122 with a C (2.0) grade minimum or permission of the instructor

**OAS 224 TRANSCRIPTION/EDITING (F,W) 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: 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: 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: 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: 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, troubleshooting 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)**

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 253 WORD PROCESSING (W) 3(3-0-0)**

Using Microsoft Word for Windows, this course is designed to assist the student in becoming proficient in word processing. These skills will include saving and retrieving documents, file management, text entry, editing and formatting features, fonts, tools, tabs, printing, simple macros, merging and sorting, footnotes, etc. One of a series of courses leading to Microsoft Office Specialist (MOS) certification. **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.

**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 (Variable) 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: OAS 252

**OAS 285 WORK BASED LEARNING-OAS (Variable) 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. Prerequisites are determined by the curriculum in which the student is enrolled.

**OAS 299 INDEPENDENT STUDY (Variable) 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 T'AI CHI CHUAN I (F,W,S) 1(0-2-0)**  
This course is an introduction to the study and practice of T'ai Chi Ch'uan. Discussion will include history and philosophical principles. Practice will involve Chi Kung exercises and the first 3 sections of the Yang long form. This course also incorporates understanding of the physical and philosophical practices of T'ai Chi.
- 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 (F) 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: PE 112 or equivalent
- PE 115 PERSONAL WELLNESS (F,W) 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) 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 (Variable) 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: PE 116
- PE 121 T'AI CHI CHUAN II (Variable) 1(0-2-0)**  
This course is a continuation of the study and practice of T'ai Chi Ch'uan. Discussion will include history, philosophical principles, physiological principles, and self defense applications. Practice will involve Chi Kung exercises, the last 3 sections of the Yang long form, applications practice, and introduction to push(sense) hands exercises. Focus will be on the 'internal' energy cultivation of T'ai Chi.
- 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.



**PHL 150 DANGEROUS IDEAS (W,S) 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.

**PHL 297 SPECIAL TOPICS IN PHILOSOPHY (Variable) 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 (Variable) 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: 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: Completion of PHLB 101 with a C or better

## **PHO – Photography**

**PHO 100 BASIC PHOTOGRAPHY (F,W,S) 3(3-0-0)**  
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 107 DIGITAL PHOTOGRAPHY I (Variable) 3(3-0-0)**  
A basic digital photography course in which students will learn the importance of natural light, the steps to effective composition, and the creative controls of their cameras. Students must bring a digital camera rated at five megapixels or higher to the course.

**PHO 120 DIGITAL PHOTOGRAPHY II (F) 3(3-0-0)**  
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: PHO 100 or PHO 107

**PHO 210 ADVANCED PHOTOGRAPHY (Variable) 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: PHO 100



## **PLS - Political Science**

### **PLS 141 INTRODUCTION TO AMERICAN GOVERNMENT (F,W,S) 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

### **PLS 170 TRIBAL GOVERNANCE AND FEDERAL INDIAN POLICY (Variable) 3(3-0-0)**

An introduction to Tribal governance and the legal structures which constitute Tribal government. The impact of Federal law-making on Indian tribes and Federal policy towards Indian tribes will be discussed. The structure of tribal governance in the state of Michigan will be explored; topics will include present constitutional structures, government-to-government relationships, and traditional governance practices. Criminal and civil jurisdiction in Indian country will be discussed; topics will include concurrent versus exclusive jurisdiction, tax, child welfare, land management, prosecution of criminal offenses, and other civil regulatory issues. How tribal governments exercise sovereignty will be discussed. Topics will be related to Tribal governments within the State of Michigan.

### **PLS 200 INTERNATIONAL RELATIONS (Variable) 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.

### **PLS 225 CITIZEN POLITICS AT LOCAL LEVEL (S) (Variable) 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.

### **PLS 235 THE AMERICAN PRESIDENCY (Variable) 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.

### **PLS 270 VIETNAM THEN AND NOW (Variable) 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.

### **PLS 295 FIELD STUDY IN POLITICAL SCIENCE (Variable) 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: Permission of the instructor

**PLS 297 SPECIAL TOPICS IN POLITICAL SCIENCE (Variable) 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 (Variable) 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.

**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

**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.

**PSY 230 MENTAL ILLNESS IN FILM (Variable) 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: PSY 161

**PSY 235 THEORIES OF PERSONALITY (W) 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: PSY 161

**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: PSY 161



**PSY 255 CHILD PSYCHOLOGY (F,W,S) 3(3-0-0)**

Examine growth and development from the prenatal period through adolescence. The course is comprehensive and covers biological processes, physical development and health, cognition and language, and social emotional development within the contexts of families, peers, schools, and cultures. Connections to research, developmental processes, careers, and real life are embedded.

**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: PSY 161

**PSY 290 SOCIAL PSYCHOLOGY (F) 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: PSY 161

**PSY 297 SPECIAL TOPICS PSYCHOLOGY (Variable) 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 (Variable) 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 (F) 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 (W) 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)      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

**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.

**REL 297      SPECIAL TOPICS IN RELIGION      (Variable)      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      (Variable)      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      (F)      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.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**RUS 112      ELEMENTARY RUSSIAN II      (F)      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: RUS 111

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**RUS 297      SPECIAL TOPICS IN RUSSIAN      (Variable)      4(4-0-0)**

Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise.

**SD – Student Development****SD 101      COLLEGE STUDY METHODS      (Variable)      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            (Variable)            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 110            BASIC SKILLS TEST-PREP COURSE            (Variable)            1(1-0-0)**

A course providing students training through PLATO instructional software, addressing reading, math and writing review. This course is aimed at preparing students to sit for the Basic Skills Test required of K-12 paraprofessionals. Course may be repeated. Student may receive no more than a total of 3 credits for this course.

**SD 115            READ TO SUCCEED            (F,W)            4(3-2-0)**

Learn new skills to make your college career easier! This class addresses three main skills of reading. Learn to read faster, understand and remember what you read, and pronounce unknown words. It is the same class as the SD 120, Reading for College Success, but is for students who score below 72 on the Compass Reading Test, because it provides more personalized instruction and practice.  
PREREQUISITE: Score of 64 on the Compass Reading Test

**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            FIRST YEAR EXPERIENCE            (F,W,S)            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. New certificate-or degree-seeking students with placement into MATH 090, ENG 090 or 095 are required to take SD 125 within the first two semesters of attendance. Effective Fall 2011.

**SD 135            LEADERSHIP AND SERVICE LEARNING I            (F)            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 – Sociology**

**SOC 110            INTRODUCTION TO WOMEN'S STUDIES            (Variable)            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.

**SOC 115            ANISHINAABEK CULTURE            (F,W)            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) 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.

**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

**SOC 175 INTRODUCTION TO SUSTAINABLE LIVING (F) 3(3-0-0)**

Introduces a broad conceptual understanding of relationships between environment, economy and community through real world, hands-on experience with local sustainable living organizations. For completion of this course, the student will be required to spend 3 hours per week in a service learning environment outside the classroom, in addition to the 3 hours of classroom lecture.

**SOC 208 JUVENILE DELINQUENCY (Variable) 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.

**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.

**SOC 230 RACE AND ETHNICITY IN AMERICA (W,S) 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.

**SOC 250 DEVIANT BEHAVIOR (F,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.

**SOC 260 ANISHINAABEWIN (CULTURE) (Variable) 3(3-0-0)**

The Anishinaabe social structure has been in a state of flux for 500 years and provides a rich cultural example of social change. The student will develop an understanding of the components of a society and what forces cause changes in those structures. Then study the pre and post contact Anishinaabewin (culture) to determine the disorganization caused by colonialism and finally study some more recent changes caused by de-colonialism on specific components within Anishinaabewin.

**SOC 271 MARRIAGE AND THE FAMILY (F,W) 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.

**SOC 297 SPECIAL TOPICS IN SOCIOLOGY (Variable) 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 (Variable) 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 (Variable) 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.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**SPAN 112 ELEMENTARY SPANISH II (F,W) 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: SPAN 111 or one year high school Spanish or permission of the instructor

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**SPAN 211 INTERMEDIATE SPANISH I (F,W) 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: SPAN 112 or two years of high school Spanish or permission of the instructor

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**SPAN 212 INTERMEDIATE SPANISH II (F,W) 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: SPAN 211, three years of high school Spanish, or permission of the instructor

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

**SPAN 297 SPECIAL TOPICS IN SPANISH (Variable) 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 (Variable) 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.

**SRG – Surgical Technologist**

**SRG 120 SURGICAL TECHNOLOGIST I (F-Odd years only) 9(6-4-4)**  
 This is the first course in the four-semester sequence for Surgical Technologist students. Students will be introduced to the discipline of surgical technology, responsibilities to their patients and their fellow team members, issues of legality and ethics in the surgical setting, communication and teamwork, as well as content related to microbes and the process of infection, sterile techniques, transporting, transferring, and positioning the surgical patient, as well as basic principles of anesthesia, physiological monitoring, computer technology, endoscopic, and robotic-assisted surgeries. Course format will include lecture, lab practice, and clinical observations.  
 PREREQUISITES: Admission to the Surgical Technologist program (AH 182 [pre- or corequisite], BIO 226, BIO 235, BIO 236, EMS 101, ENG 111, MATH 110, OAS 116)  
 COREQUISITE: AH 182

**SRG 130 SURGICAL TECHNOLOGIST II (W-Even years only) 9(6-4-4)**  
 This is the second course in the four-semester sequence for Surgical Technologist students. Topics will include: an introduction to surgical techniques, diagnostic and assessment procedures, surgical instruments, and general surgical techniques as they relate to abdominal and orthopedic procedures. Course format will include lecture, lab practice, and clinical observations.  
 PREREQUISITES: Admission to the Surgical Technologist Program, completion of SRG 120 with “C+” or better.

**SRG 220 SURGICAL TECHNOLOGIST III (F-Even years only) 9(6-4-4)**  
 This is the third course in the four-semester sequence for Surgical Technologist students. Topics will include: the role of the surgical technologist in ophthalmic, ENT, oral and maxillofacial, plastic, reconstructive, vascular, cardiac, pediatric, and neurosurgical procedures. Course format will include lecture, lab practice, and clinical observations.  
 PREREQUISITES: Admission to the Surgical Technologist Program, Completion of SRG 130 with “C+” or better.  
 COREQUISITES: None

**SRG 230 SURGICAL TECHNOLOGIST IV – EXTERNSHIP (W-Odd years only) 9(0-0-36)**  
 This course places surgical technologist students in the work-based learning environment of a working operating room for four nine-hour shifts each week. During this period, students will function as a member of the surgical team, applying knowledge and skills they have acquired in the previous three terms.  
 PREREQUISITES: Admission to the Surgical Technologist Program, completion of SRG 220 with “C+” or better.  
 COREQUISITE: SRG 240

**SRG 240      OPERATING ROOM SEMINAR      (W-Odd years only)      3(3-0-0)**

This course serves two primary functions: it serves as a forum for discussion of and reflection upon issues that are being encountered by Surgical Technologist students in their clinical externships at area hospitals and provides a means of maintaining cohort identity as the externships drive students into different sites, procedures, and colleagues. The seminar also serves as both a capstone to the program and an introduction to the professional requirements of working as a Surgical Technologist after graduation. Students will participate in weekly seminar discussions, culminating in a final paper that summarizes their clinical externship experience.

PREREQUISITES: Admission to the Surgical Technologist Program, completion of SRG 220 with "C+" or better.

COREQUISITE:            SRG 230

## **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: MATH 130

## **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)      (Variable)      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.

PREREQUISITES: TDT 130 or equivalent AutoCAD experience

**TDT 140      ARCHITECTURAL CAD      (W)      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: TDT 130 or AutoCAD experience





**THF 297      SPECIAL TOPICS IN THEATRE & FILM      (Variable)      3(3-0-0)**

Special Topics courses provide opportunities for focused study with full-time or adjunct instructors teaching in their areas of expertise.

**VNW – Viticulture**

**VNW 110      INTRODUCTION TO VITICULTURE      (F)      3(3-0-0)**

Introduces students to viticulture in general and to current practices for establishing a commercial vineyard. Topics include grape growing, operations for northern Michigan, winemaking/enology, legal and business aspects of the industry, packaging design and marketing.

**VNW 120      INTRODUCTION TO ENOLOGY      (W)      2(2-0-0)**

Provides an overview of all technical aspects of wine making, including pre-fermentation decisions, the management of the fermentation processes, post-fermentation requirements, equipment and testing. The course puts an emphasis on the practical aspects of winemaking.

**VNW 285      VITICULTURE INTERNSHIP I      (Variable)      1-2(0-0-4-8)**

Students in this course will be placed in at a working vineyard or wine-making facility, so that they can experience first hand the work and steps involved in producing product and services. Specific duties and topics of learning will depend on the workplace. Students will participate in the work environment at an appropriate introductory level, which will depend on individual student ability and experience. 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 the Viticulture program. Students should meet with an advisor or the associate dean at least six weeks before the beginning of the semester during which the internship will be held.

**VNW 290      VITICULTURE INTERNSHIP II      (Variable)      1-2(0-0-4-8)**

Students in this course will be placed in at a working vineyard or wine-making facility, so that they can experience first hand the work and steps involved in producing product and services. Specific duties and topics of learning will depend on the workplace. Students will participate in the work environment at an intermediate level, which will depend on individual student ability and experience. 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 the Viticulture program. Students should meet with an advisor or the associate dean at least six weeks before the beginning of the semester during which the internship will be held.