

2014-15 Catalog



North Central Michigan College - Where your education **matters!**

2014-15

Policy Guide



North Central
MICHIGAN COLLEGE

*It's what **matters!***

North Central Michigan College - Where your education **matters!**

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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 policy guide 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 policy guide. Read carefully the sections containing important information about financial aid, along with the policies and procedures you must follow as a North Central student.

Keep this guide as a reference throughout your attendance at North Central. Our website, 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. We are committed to your success as a student here, and will work with you to set your educational goals, and help you complete them, whether it's a few classes or a degree.

Sincerely,

A handwritten signature in black ink that reads "Cameron Brunet-Koch". The signature is written in a cursive, flowing style.

Cameron Brunet-Koch, Ph.D. President

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 policy guide. 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 (NCMC) 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 NCMC 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 NCMC 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.

NCMC 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 NCMC or any of its departments or personnel in violation of this policy should immediately file a Complaint with the Vice President of Finance and Facilities and request a copy of the NCMC 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 NCMC website: www.ncmich.edu.

Questions concerning the NCMC non-discriminatory policy may be directed to the NCMC Vice President of Finance and 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.

The Board of Trustees delegates the development and adherence to the "Discrimination Grievance Procedures" to the President.

Revised 11/11

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 Learning and Student Success. North Central creates an environment where people can learn and be successful. The College provides opportunities for people to acquire knowledge and new skills.

Integrity. North Central operates in ways that are honest, fair, respectful and responsible.

Community and Educational Access. North Central has a positive impact on students, their families and our communities by providing an open-door pathway to education and opportunity. North Central builds relationships among diverse people and organizations.

Excellence. North Central strives for the highest quality in its curricular and co-curricular offerings. The College utilizes on-going assessment and evaluation methods to measure its progress and reach for continuous improvement.

Stewardship. North Central effectively manages its facilities and systems while maintaining a balanced budget.

Community Engagement and Service. North Central demonstrates a commitment to helping others on and off the campus and provides leadership in community development.

Academic Calendar

WINTER 2015

| | |
|---------------------|-------------------|
| Registration Begins | November 12, 2014 |
| Semester Begins | January 12, 2015 |
| Semester Ends | May 8, 2015 |

SUMMER 2015

Summer Semester has various start dates within the 16-week period, May 11- August 28, 2015. Check schedule on the Portal for specific start dates.

16-week semester

| | |
|-----------------------|----------------------|
| Semester Begins | May 11, 2015 |
| Registration Deadline | May 15, 2015, 5 p.m. |
| Semester Ends | August 28, 2015 |

8-week semester

| | |
|-----------------------|----------------------|
| Semester Begins | June 1, 2015 |
| Registration Deadline | June 5, 2015, 5 p.m. |
| Semester Ends | July 24, 2015 |

FALL 2015

| | |
|-----------------------|----------------------------|
| Semester Begins | September 8, 2015 |
| Registration Deadline | September 14, 2015, 5 p.m. |
| Thanksgiving Break | November 26-27, 2015 |
| Semester Ends | December 18, 2015 |

The information contained in this catalog is subject to change. Go to www.ncmich.edu for the most current information.

Campus Locations and Contact Information

North Central's main campus is in Petoskey. North Central also has centers in Cheboygan and Gaylord and offers classes in Charlevoix County. North Central students may take classes at any or all of these locations.

Main Campus - Petoskey

1515 Howard St.
Petoskey, MI 49770
(231) 348-6600

North Central classes in Cheboygan are offered at the Straits Area Education Center, at 504 Division Street in Cheboygan.

Straits Area Education Center

504 Division Street
Cheboygan, MI 49721
(231) 597-0322

North Central classes in Gaylord are offered at the University Center. In Gaylord and in Petoskey, students can earn an associate's degree or take initial coursework toward a bachelor's degree or a master's degree with a participating University partner.

Gaylord Center

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

Quick Resource Guide

Petoskey Campus: (231) 348-6600
Cheboygan: (231) 597-0322
Gaylord: (989) 705-3775

Academic Advising and Counseling

Student Services
(231) 348-6605

Academic Records

Student Services
(231) 348-6626

Add, Drop, Change or Withdraw From a Course

Student Services
(231) 348-6625

Admission to the College

Student Services
(231) 348-6626

Books and Classroom Supplies

College Store
(231) 348-6606

Business Office

Refund Checks/Student Account/Pay Bill
Account Specialist
(231) 348-6609

Campus Tours

Student Services
(231) 348-6605

Change of Address

Student Services
(231) 348-6625

Corporate and Community Education

(231) 348-6705

Financial Aid

Financial Aid Advisor
(231) 348-6627

Help Desk-Technology Problems

Help Desk Technician
(231) 348-6617

Instructional Contacts

*Associate Dean of Business,
Manufacturing and Technology*
Pam Miller, Ph.D.
(231) 348-6619

Associate Dean of Liberal Arts

Sara Glasgow, Ph.D.
(231) 348-6604

Associate Dean of Nursing, Allied Health, Science and Wellness

Rene Bieganowski, M.S.N., B.B.A., R.N.-B.C.
(231) 348-6658

Learning Support Services Tutoring/ Assessment Testing/Disability Services

(231) 348-6682

Library

(231) 348-6615

Off-Campus Centers

(989) 705-3775 Gaylord
(231) 597-0322 Cheboygan

Program of Study Change

Student Services
(231) 348-6625

Residence Hall

(231) 439-6443

Student Clubs, Organizations, Activities

(231) 439-6349

Student Identification Card

Student Services-Petoskey Campus

Veteran's Benefits

VA Certifying Official:
Melissa Colby
(231) 348-6627

VA Academic Advisor:

Gena King
(231) 348-6817

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.

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.

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 and personal interest students are exempt from the requirement. Those already holding a credential from a college or university may be exempt. The orientation and advising sessions are held both on and off campus. Reserve your spot by going to www.ncmich.edu/orientation.

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 placement 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.

In addition to seeing an advisor, students can monitor their own progress toward completion of a declared certificate or degree via the College's 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/pos_change.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.

Get Ready for College

- 1. Apply for Admission:**
Applying to North Central is FREE! Go to www.ncmich.edu and click on _____ to get started.
- 2. Request Official Transcripts:**
Request official transcripts from all colleges/universities you have attended to be sent to the Records office. First time students request your final high school transcript to be sent to our Records office.
- 3. Apply for Financial Aid:**
Go to www.ncmich.edu, *Financial Aid*. Apply early, processing takes at least four weeks.
- 4. Assessment is Mandatory:**
Submit High School Transcript with ACT scores or take the COMPASS. Allow 2 hours. No cost for COMPASS. Retakes are charged. For Petoskey call (231) 348-6682. For Gaylord call (989) 705-3775. For Cheboygan call (231) 597-0322.
- 5. Orientation, Advising and Registration**
All new students at North Central are required to attend an orientation session. You will learn terms, expectations, processes needed for college life, and register for classes. Assessment must be completed prior to scheduling to attend a session. Go to www.ncmich.edu/orientation to schedule an orientation session.
- 6. Pay for Classes:**
Payment due dates are published on the web. They are also found on the printed class schedule each semester and on your bill. For payment options go to www.ncmich.edu, click on Paying for College.
- 7. Use Your Free College Mymail Account:**
Your Mymail account will be emailed to you when you become an accepted North Central student. This is the primary way you will receive correspondence from North Central. Your username is the same as the Portal so your address would be `username@student.ncmich.edu`.

Important 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.

Campus or Residence Hall Tour:

Call (231) 348-6605 to schedule your tour.

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 guide 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.

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 provide ACT or COMPASS scores before registering for classes. Former students need to re-apply after two years of non-attendance.

North Central Now!

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 beginning in grade 9 may be eligible for dual enrollment/concurrent enrollment as recommended by their high school. Students apply online 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 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.

Early College

North Central Now! Early College is a program for high school students in the northern Michigan region which allows students to receive both their high school diploma and associate degree after their fifth year of high school. Students will complete their course work at their home high school and at North Central Michigan College's Petoskey campus. The goal of the early college is to provide students in the region an exceptional academic experience that promotes student success through achieving a college credential while reducing the time and expense of a college education. Increasing the number of area residents with college degrees is an important regional and national goal.

Former High School Dual-Enrolled

Former high school dual-enrolled students are required to complete a new application for admission if they wish to continue or return to North Central after graduation from high school. Former dual-enrolled students are required to provide a high school transcript with ACT scores before registering for classes, 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.

Steps to Transfer Students

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

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.
- Students who have previously earned associate or bachelor degrees of arts, sciences or general studies (or equivalent) are not eligible to earn associates of arts, sciences or general studies at North Central.
- 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. A minimum of one course from North Central must be taken before the MTA may be conferred.
- 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.
- 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.
- North Central will only evaluate international transcripts that have been evaluated by either World Education Service, Inc. (WES) or Educational Credential (ECE). The evaluated transcript must come directly to North Central from one of these agencies.

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 online 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 online North Central Michigan College Application for Admission is available at www.ncmich.edu/apply.
 - 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, 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 Vice President of Student Affairs and Vice President 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.

Calculating Tuition and Fees

There are various components to calculating your college costs for each semester. Definitions for each component follow the Tuition and Fee Calculator.

The calculator produces only an estimated cost. Actual costs will be calculated at the time of registration.

Tuition Calculator:

www.ncmich.edu/finaid/calculator.html

Net Price Calculator

All Title IV schools that enroll full-time, first-time degree- or certificate-seeking undergraduate students must have on their website a net price calculator. The net price is defined as the cost of attendance minus the average yearly grant and scholarship aid. The calculator provides estimated net price information to current and prospective students and should be based, as much as possible, on their individual circumstances.

ED's National Center for Education Statistics has developed a template that schools can use to create their own customized net price calculator, or they can develop their own calculator. If they develop their own, it must include at a minimum the same data elements found in the Department's calculator template. The Net Price Calculator Information Center at http://nces.ed.gov/ipeds/resource/net_price_calculator.asp provides the template as well as FAQs, a zipped file with links to other schools' calculators, and resources for schools to develop their own calculators.

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 online 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 online, go to 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.

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:

- **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.
- **Summer Session:** The refund schedule applies to the first Friday of the semester rather than the second Friday of the semester.
- **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 one year after the course was taken.

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, student success 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.

Application Process

Students must apply for financial aid each academic year by completing the Free Application for Federal Student Aid (FAFSA) at www.FAFSA.gov. The FAFSA is available after January 1 for the next academic year. Students are advised to apply as early as possible. When funds are limited, awards may be granted to applicants who meet all requirements and have a complete financial aid file by May 1. North Central will review the FAFSA results as received from the U.S. Department of Education to determine eligibility and the amount of students' awards based on Federal regulations.

Eligibility for Financial Aid

Financial aid awards are determined and disbursed in compliance with established Federal, State, and Institutional regulations and may change without notice. General eligibility requirements for aid include the following:

- Be a U.S. Citizen or eligible non-citizen
- Have a high school diploma, GED certificate, or completed home schooling
- Be accepted for admission as a regular student and be completing a degree or certificate in an eligible program of study
- Have financial need based upon the College's Cost of Attendance, the student's need as

determined by the FAFSA, the program requirements set by the U.S. Department of Education or State authority

- Be making satisfactory progress

Students may access the U.S. Department of Education's website for further Federal financial aid requirements at www.studentaid.ed.gov. In addition, the College's Financial Aid Office can be contacted for further information on eligibility, award amounts, and all financial aid programs. 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.

Federal Student Financial Aid Penalties for Drug Law Violations

A conviction for any offense, during a period of enrollment for which a student was receiving Title IV, HEA program funds, under any federal or state law involving the possession or sale of illegal drugs will result in the loss of eligibility for any Title IV financial aid including Pell and FSEOG grants, Federal Direct Loans, and Federal Work-Study.

Enrollment Status

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. The final aid award is based on enrollment after the schedule adjustment (refund) period is over.

Book Purchase and Award Payments

Eligible students with awarded Federal aid may charge their books in the College Store against their semester aid. Financial aid award payments are applied to students' accounts each semester of enrollment approximately 30 days after the start date of the semester. Refunds for aid that exceed tuition, fees, books and campus housing and meal plan, if applicable, are issued within 14 days of the award payment to the students' account. Students can select the way they would like to receive their refund – electronically or with paper check.

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.

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.

Financial Aid Office Code of Conduct

Financial aid office employees follow North Central's Ethical Standard for Faculty, Staff, Administration and the Board of Trustees (Policy 115). In addition, as a member of the National Student Association for Student Financial Aid Administration – NASFAA – financial aid employees follow the NASFAA Statement of Ethical Principles and Code of Conduct for Financial Aid Professionals.

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. 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. The student will be given aid on a Warning Status for the next semester the student attends NCMC.
- 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.

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.

Appeal Process

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.

Get Ready for Financial Aid



1.

Apply for Admission:

Applying to North Central is FREE! Go to www.ncmich.edu and click on

to get started.

2.

Apply for a Federal PIN:

PIN is used to access and correct your and your parent's information online. Parents need a PIN if their information is required for financial aid application. Go to www.pin.ed.gov to request PIN.

3.

Complete the Free Application for Federal Student Aid (FAFSA)

Or complete the Renewal Application. Go to www.fafsa.gov. Use College Code for North Central Michigan College: 002299.

- Put this on your FAFSA so we can access your FAFSA results electronically. If you are transferring mid-year or considering multiple colleges, put all codes down but put the most likely to attend first.

4.

Review Your FAFSA Information:

About one week after you submit the FAFSA, a Student Aid Report (SAR) is sent to you via email by the federal processor. Review the information for accuracy and submit any changes requested online. If no email was provided, 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.

5.

Respond IMMEDIATELY to Requests for Information:

You may be selected by the federal processor or the College for verification and be required to submit to the Financial Aid Office income documentation and a Verification Worksheet. Application processing STOPS until all documentation is received and the student file is complete.

6.

File Complete:

After your file is complete, a review and determination of eligibility will be determined. 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 on the web site under *Financial Aid*.

Scholarships:

North Central Scholarships: Go to www.ncmich.edu under Financial Aid, Scholarships. Deadline date is May 15 each year. Awards are based on academic excellence and specific scholarship requirements. Check out any clubs, organizations, and businesses with which you or your parents may be affiliated. Check out a search through legitimate sources only such as 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 - U.S. Department of Education, FAFSA, Student Guide

www.michigan.gov/mistudentaid - Michigan Financial Aid information

The Financial Aid Office is located in Student Services at the main campus in Petoskey. **Contact us:**

phone: (231) 348-6605
 fax: (231) 348-6685
 (231) 348-6627

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 financial need. 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 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:

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 online at 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 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.studentloans.gov and at the college's website 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 subsidized Federal Direct Stafford Loan. If eligible, a student may receive loan funds beyond the subsidized loan limit or, if he/she does not have a financial need, through an unsubsidized Federal Direct 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 online. The counseling takes place prior to the first disbursement of a loan. Online loan counseling is accessed through the College website. Loan entrance and exit 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.

Other Resources

Veterans

Veterans and veterans' dependents are encouraged to contact the Veteran Resource Representative in the Learning Support Services office at (231) 348-6820 or mcolby@ncmich.edu for information about Department of Veteran Affairs (VA) benefit eligibility in the areas of: Education, Employment, Healthcare and Quality of Life. The VA Certifying Official on campus can assist students with applying for VA educational benefits and will certify enrollment each semester. The student must request certification each semester with the VA Certifying Official. Students are required to make satisfactory academic progress to continue receiving benefits. All changes of address, program of study and withdrawals from courses must be reported immediately to the VA Certifying Official. For more information visit www.gibill.va.gov.

Women's Resource Center Funds

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

Little Traverse Bay Bands of Odawa Indians

Contact the Education department at (231) 242-1492 for resources available to LTBB members.

Michigan Indian Tuition Waiver

Michigan residents who are North American Indian and are certified one-quarter blood quantum by their tribal association may be eligible for tuition assistance funding. A Michigan Indian Tuition Waiver Application must be completed. Students should contact their tribal enrollment office.

Waganakising Odawa Career and Technical Education Program (WOCTEP)

WOCTEP offers financial and other assistance to North Central students enrolled in one or more of the seven short culturally enriched certificates; New Media, Graphic Arts, Phlebotomy, Certified Nurse Aide, Medical Assistant, Textiles and Entrepreneurship Essentials.

Michigan Works!

Northwest Michigan Works! offers career guidance and basic skill development for adult learners.

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.

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, SAT or High School GPA may be used to satisfy the College's assessment requirement. Students who have not taken the ACT or SAT may take the COMPASS assessment.

Exemptions from Assessment Testing

The following qualify as exemptions from the assessment requirement. Students must meet prerequisites for all courses.

1. Guest student status
2. Satisfactory completion of college-level English and mathematics credits at a previous institution
3. 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.

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 place you in courses appropriate for your skill level. 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 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 untimed so you can work at your own pace;
- Allow about two hours to complete the assessment;
- Bring your Social Security number and photo ID;
- There is no cost for first-time takers. You can retake the COMPASS up to three times in a 30-day period, but each retake costs \$10 and there is a mandatory 24-hour waiting period between retests;
- Results are printed out at the completion of the assessment and provide appropriate North Central course placement;
- COMPASS is offered in Learning Support

Services, Room 533 of the Student and Community Resource Center in Petoskey, and at the College's Gaylord and Cheboygan offices by appointment.

- For sample questions and more information, go to 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, reading, mathematics scores and your high school GPA. 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 scores, ACT scores or high school GPA could place you into one of these courses:

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

Mathematics

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

- MATH 093/094 College Prep Math, a developmental course that does not count toward graduation. It is pass/fail.
- MATH 108 Quantitative Reasoning Preparation
- MATH 110 Beginning and Intermediate Algebra (Part I).
- MATH 120 Intermediate Algebra.
- MATH 125 Mathematics for Elementary Education Teachers.
- MATH 128 Quantitative Reasoning
- MATH 130 College Algebra.
- MATH 140 Trigonometry.
- MATH 150 Analytic Geometry & Calculus I.

Technology at North Central

Blackboard

Blackboard is an electronic learning management system which provides a wide variety of online learning services to students in traditional classes and online 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 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, 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 is available to students with their student portal account and is open to guests with limited access. Student Portal accounts are provided to students when they are accepted for admission to the college. Go to www.ncmich.edu and click on Apply for Admission.

Student Portal

Single sign-on access to technology and resources at North Central such as registration and account information. Students will be provided with an account and password upon review of their application for admission by the admissions office.

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, and communicate with fellow students. The North Central's Blackboard and My Alerts systems also use MyMail to send notifications.

Course Delivery Methods

Instruction is delivered several ways at North Central to address student needs, learning styles and best practices.

Online Courses

Online 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 online course per semester.

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

North Central students registering for online courses through Michigan Colleges Online: Michigan Colleges Online make it possible for students to take online classes from more than 20 other community colleges in Michigan. To find out more or to register for online classes go to www.micollegesonline.org.

NOTE: North Central students should not register for North Central online courses through the Michigan College Online website.

Michigan Colleges Online students taking North Central online classes: Students from other Michigan community colleges may take North Central's online courses by registering at www.micollegesonline.org. To take such online 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 online. 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 online. Hybrid classes are designated in the course schedule by "HY" plus the section number.

Classes that deliver instructional content online are not for everyone. Students taking a hybrid or fully online 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 online?
- Can I commit significant amounts of time, up to 10 hours per week, to online 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 five universities have formed a University Center in Petoskey. Through the University Center, students can complete designated bachelor's or master's degrees on North Central's Petoskey campus. Partner universities and programs are listed below:

Central Michigan University

- M.A. Counseling

Judy Nemitz, Program Administrator
 NCMC Office: Room 45, ADCL
 (231) 995-1755
 (231) 995-1758 fax
nemit1jj@cmich.edu

Ferris State University

- B.S. Computer Information Systems
- B.S. Computer Information Technology

Debra A. Curtiss, Director
 NCMC Office: Room 46, ADCL
 Extended and International Operations
 (231) 995-1734
 (866) 857-1954
 (231) 995-1736 fax
FerrisNorth@ferris.edu

Lake Superior State University

B.S. Accounting - CPA
 B.S. Business Administration (minor options:
 Accounting/Finance, Marketing, or Public Relations)
 M.B.A. Master of Business Administration
 B.S. Criminal Justice - Emphasis in Law
 Enforcement or Generalist
 B.S./B.A. Early Childhood Education
 B.S./B.A. Individualized Studies
 B.S./B.A. Liberal Studies
 B.S.N. Nursing Completion (must be A.D.N.
 graduate)

Joe Balinski, Director
 LSSU Petoskey Regional Center
 NCMC Office: Room 48, ADCL
 (231) 348-6623
 (231) 439-6513 fax
jbalinski@lssu.edu

Michigan State University

- Viticulture Certificate
- Applied Plant Science Certificates
 - Commercial Horticulture Operations
 - Landscape Horticulture

Brian Matchett, Regional Program Coordinator
 NCMC Office: Room 47, ADCL
 (231) 995-1719
matchet4@anr.msu.edu

Spring Arbor University

- B.A. Elementary & Secondary Education
- Post B.A. Elementary & Secondary Education
- Bachelor in Social Work (B.S.W.)
- Master in Social Work (M.S.W.)

Sara Lancaster
 NCMC Office: Room 42, ADCL
 (231) 439-6203
 800-968-0011 ext. 4282
 (231) 439-6333 fax
sara.lancaster@arbor.edu

Services and Resources

Academic Advising

North Central academic advisors provide assistance so that students achieve success in their educational programs. They explain college policies and services, degree requirements, transferability and help students with schedule planning and graduation checks. Students who place into developmental coursework are required to speak with an advisor prior to enrollment in, and make changes to, their class schedules. Advisors are available through Student Services in Petoskey, and hold office hours in Gaylord and Cheboygan, most often by appointment.

Counseling Services

North Central licensed professional counselors help students adjust to college life, assist with curriculum choices, provide career exploration services and provide support to those experiencing social and emotional problems that interfere with academic success. Counselors 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 through Student Services.

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 online 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 is a study and resource center for students at North Central Michigan. It houses the campus tutoring services, disability services, test proctoring and placement testing. Students can access the offices of the Women's Resource Center and WOCTEP through Learning Support Services.

Learning Support Services has a collection of texts and reference books to assist you with your studies. Information about effective study methods and student success is available throughout Learning Support Services.

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) 348-6682 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 \$100, which includes a \$20 North Central administration fee.
- A study guide is available at www.collegeboard.com/clep.
- A list of NCMC-accepted exams is available at www.ncmich.edu/advising/clep.html.

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

Tutoring Services

Free tutoring 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 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.

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. Photo ID is required for all testing.

Library

The Library offers students and guests a welcoming and comfortable place for research and study. The Library provides traditional print resources including books, periodicals and newspapers, along with online access to more than 100,000 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 to the public as well as students.

The Library provides instruction for students in the use of print materials and applying successful search techniques in online databases. Research help is available by phone, email and IM. 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.

Women's Resource Center

The Women's Resource Center of Northern Michigan, Inc. (WRCNM), a non-college organization with offices at North Central, offers the Educational & Employment Services Program providing educational scholarships, career guidance and exploration, resume development, job search assistance, academic advising and advocacy and community referrals. The WRC on-campus office is located in the Learning Support Services area of the Student and Community Resource Center.

The licensed, Master's level therapists at the Women's Resource Center of Northern Michigan have specialized training and experience in providing services to current and past survivors of crimes such as domestic/dating abuse, sexual assault, child abuse and child sexual assault. These counseling services are provided at no cost to all survivors. Non-victim related counseling is also available for issues such as depression, parent challenges, grief/loss and life transition on a fee-based, sliding scale and no one is turned away, if unable to pay. Call the WRCNM Administrative/counseling office for more information or appointment, at (231) 347-0067. The WRCNM's 24-hour crisis and information lines are (231) 347-0082 or 800-275-1995. The WRC on-campus office is located in the Learning Support Services area of the Student and Community Resource Center.

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 a member of the Achieving the Dream initiative which was launched by the Lumina Foundation and seven founding partner organizations in 2004. In 2012, the college was designated as a "Leader College" for demonstrating significant improvement towards student success. Today, Achieving the Dream is the most comprehensive, non-governmental reform network for student success in higher education history. North Central joins over 200 colleges across 34 states and the District of Columbia to help 3.8 million community college students realize greater economic opportunity and achieve their dreams.

Academic Policies

Withdrawal from Classes

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 online 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 a grade of "E" at the end of the semester.

Cancellation of Classes (Weather)

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 through "MyAlerts" in North Central's Portal 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, and on campus via video display monitors.

Cancellation of Classes (Insufficient Enrollment)

North Central reserves the right to cancel classes due to low enrollment. Every effort will be made to notify students enrolled in those classes.

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 Vice President of Academic Affairs 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 online 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".

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). To declare this, an Audit Status form is available in Student Services. Once a course has been declared an audit, it cannot be reinstated to a credit class. 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 taken 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.

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 Vice President of Academic Affairs and Student Success. The appeal must be delivered to the Vice President within 10 working days of the previous decision. The Vice President will consider the appeal and may request additional information from the student and/or the instructor. The Vice President 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

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 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. 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. President's, Dean's and Scholars Lists will be calculated at the end of the fall and winter semesters. A notation 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 may 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 vice president 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 2014-15 academic year must meet the graduation requirements from a catalog effective no earlier than Fall 2008. 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), or 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 online.

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 and have an overall cumulative 2.0 GPA.

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 graduate with honors, as indicated below:

| | |
|---------------------|--------------|
| Distinction | 3.50 to 3.69 |
| High Distinction | 3.70 to 3.89 |
| Highest Distinction | 3.90 to 4.00 |

Graduation honors apply to programs requiring at least 30 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. A certificate of development may ladder up to an associate of applied science degree. Students are eligible to earn multiple certificates and degrees as long as all requirements are met.

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.

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 Vice President of Student Affairs or Registrar during this one-year period.

Notification of Rights under Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access.

A student should submit to the Registrar, a written request that identifies the record(s) the student wishes to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Registrar, he/she shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.

A student who wishes to ask the College to amend a record should write the College official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the College discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The College discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide a service instead of using College employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College.

Directory information is released without prior student consent. The following constitutes "Directory information" as defined by North Central Michigan College:

- Name
- Email Addresses
- Full Time/Part Time
- Address
- Student Classification (active/inactive)
- Degrees/Honors/Dates Earned

- Telephone Number(s)
- Dates of Attendance (year/term)
- Field of Study

Students can request non-release of directory information by submitting a "Request for Non-Disclosure of Public Information" form obtained in Student Services.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

**Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901**

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 Registrar/Director of Enrollment 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 Vice President of Student Affairs 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 may 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 Vice President of Student Affairs 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 is required prior to registering for classes.

Business: A hold may be placed at the request of the Business Office when the student has failed to discharge his/her financial obligations to the College.

Financial Aid Warning/Advising: A hold may be placed on a student's record if the student has been placed on financial aid warning status.

Housing Hold: A hold may be placed on a student's record for disciplinary reasons related to campus housing.

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

Library Resources: A hold may be placed on 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 the 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 Vice President of Finance and Facilities.

Procedure:

1. **Report:** A person should report an incident of sexual harassment, including, but not limited to, sexual assault, domestic assault, dating violence and stalking by speaking to a North Central employee.
2. **Investigation:** The Vice President of Finance and Facilities or designated representative will conduct a full, fair, and impartial investigation of the allegation.
3. **Findings and Determination:** Within twenty-one (21) days after the original submission of a Response to the Complaint, the Investigative Hearing Officer shall issue a Determination, which shall include written findings as to the validity of the Complaint and recommendations for resolution of the Complaint. If the findings include evidence of discrimination in the process, activity, policy, standard or method of administration, recommendations for changes shall be made and the efforts for such changes shall be coordinated with the department or unit of NCMC whose activity, policy, standard or method of administration is at issue. In the event that the Complainant was adversely affected by a decision found to be discriminatory, the Complainant shall be given the opportunity for the decision to be reconsidered in light of the revised process, policy, activity, standard or method of administration. If insufficient evidence of discrimination is found, written notice of that finding and its rationale shall be provided to the Complainant within the twenty-one (21) day time period together with a Notice informing the Complainant of a right to appeal the Determination to the NCMC President within five (5) days of the receipt of the Notice. Anything herein to the contrary notwithstanding, a Complainant has the right to appeal any Determination made hereunder to the NCMC President.
4. **Appeal:** Either party may appeal the Investigative Hearing Officer's Determination by filing a Notice of Appeal with the NCMC President within five (5) days after receipt of the Determination. The Notice shall include a copy of the Determination and state the basis for the

Appeal, providing any additional or supplemental information or evidence which may support the Appeal. A copy of the documents filed by the Appellant shall be provided the other party who may file a Rebuttal Statement within five (5) days of receipt of the Notice of Appeal.

The President shall review the record of the hearing officer's investigation and any further information or evidence submitted with the Appeal and may consider any other relevant information that may come to the President's attention. After appropriate consideration, the President may take any suitable action, including, but not limited to, affirming, modifying or reversing the Determination or requiring additional investigation.

The President shall provide a written decision on the Appeal to all parties and the pertinent department/unit of NCMC. There shall be no further levels of review or appeal beyond the President.

Retaliation

Title IX prohibits retaliation against victims. North Central will take steps to prevent retaliation and will respond to any retaliatory acts with due diligence and discipline.

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:

1. To be informed in writing of the specific charges and the grounds for such charges.
2. 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.
3. To be present at such hearing, if desired.
4. To exercise a privilege against self-incrimination.
5. 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.
6. To be informed in writing of the Vice President or the Committee's final decision.

7. To waive the right of a formal hearing before the Committee and to have the case heard by the appropriate Vice President.
8. To appeal the decision of the Vice President 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 Vice President of Student Affairs or other appropriate Vice President 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.

Forms of misconduct:

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

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.

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

Dating Violence. Violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with the victim; and where the existence of such a relationship shall be determined based on a consideration of the following factors: length of the relationship; type of the relationship; and the frequency of interaction between the persons involved in the relationship.

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.

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

Disruption or unauthorized interruption of college activities.

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.

Domestic Violence. A felony or misdemeanor crime of violence committed by - a current or former spouse or intimate partner of the victim; a person with whom the victim shares a child in common; a person who is cohabitating with or has cohabitated with the victim as a spouse or intimate partner; a person similarly situated to a spouse of the victim under the domestic or family violence laws of the jurisdiction receiving grant monies (under VAWA), or any other person against an adult or youth victim who is protected from that person's acts under the domestic or family violence laws of the jurisdiction.

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 firefighting equipment are prohibited. All persons are expected to follow posted building evacuation procedures in the event of fires or fire drills.

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

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

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."

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

Sexual assault. Any form of unwanted sexual contact obtained without consent and/or obtained through the use of force, threat of force, intimidation or coercion.

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 Vice President of Student Affairs. Students are not allowed to use their residence hall rooms for any commercial purpose.

Stalking. Engaging in a course of conduct directed at a specific person that would cause a reasonable person to fear of his or her safety or the safety of others; or suffer substantial emotional distress.

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.

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, including peer-to-peer file sharing.
- 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.

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

Disciplinary Actions:

Violations of the Student Conduct Standards are subject to disciplinary action. After considering information presented at a hearing, the Vice President of Student Affairs or the Campus Judicial Committee will make a decision as to guilt or innocence. In the case of a "guilty" decision, the Vice President of Student Affairs 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.

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 North Central's Student and Community Portal to register for classes, access grades, Blackboard, MyMail, the Library, wireless Internet 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, 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 two-year colleges. 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, free movie nights, Winterpalooza and Summer Send-Off.

Student Activities Fund

Funding for student activities is derived primarily from the Student Activity Fee and is administered by the Vice President of Student Affairs, 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 (CCE) is a division of North Central created to respond to the needs of area businesses. CCE offers noncredit 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 7,500 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 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

Crockett, Ben

Anatomy and Physiology
B.S., M.S., Northern Michigan University
(231) 348-6656
brockett@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

Jordan, Robin, Ph.D.

Nursing
B.S.N./R.N., University of Delaware
M.S.N., Case Western Reserve University
Ph.D., Touro University
C.N.M., College of Medicine and Dentistry of New Jersey
(231) 348-6804
rjordan@ncmich.edu

Kersting, Gary

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

Knott, Kim

Nursing
R.N., North Central Michigan College
B.S.N., University of Michigan
M.S.N., Kaplan University
(231) 348-6634
kknott2@ncmich.edu

Knott, Thomas

Accounting
M.S.Ed., Ferris State University
(231) 348-6632
tknott@ncmich.edu

Kolodziej, Jo-Anna

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

Maginnis, Jennifer

Communications
M.A., Michigan State University
Ph.D, University of Kentucky
(231) 348-6636
jmaginnis@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

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

Stabile, Lisa

Nursing
B.S. Michigan State University
B.S.N., Northern Michigan University
M.S.N., FNP-BC, Michigan State University
(231) 347-6744
stabile@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 Staff**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

Bieganowski, Rene, M.S.N., B.B.A., R.N.-B.C.

Associate Dean of Nursing, Allied Health,
Science and Wellness
B.A., Lake Superior State University
M.S.N., Walden University
(231) 348-6658
rbieganowski@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

Assistant to Vice President of Finance and
Facilities/Front Desk Coordinator
A.A., Lake Superior State University
(231) 348-6703
ybarrette@ncmich.edu

Barta, Sue

Receptionist, Student Services
B.S., 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

Baumann, Jamie

College Readiness Coach
B.A., Illinois State University
M.A., Central Michigan University
(231) 348-6824
jbaumann@ncmich.edu

Boop, Scott

Admissions Specialist
B.S., University of Maryland University College
M.B.A., Columbia Southern University
(231) 348-6626
sboop@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

Breed, Christine

Financial Aid Advisor
B. BA., Wash College
(231) 348-6685
cbreed@ncmich.edu

Brodie, John

Maintenance Supervisor
B.S., Michigan State University
(231) 439-6293
jbrodie@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

Caron, Sue

Accounts Payable Clerk
Associate of Commerce, North Central
Michigan College
(231) 348-6608
scaron@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
(231) 439-6379
mcastagne@ncmich.edu

Chatterson, Ann

Lead English Tutor
B.A., M.A., University of Michigan
(231) 439-6345
achatterson@ncmich.edu

Clark, Daniel

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

Colby, Melissa

Veterans Resource Representative
B.S., Lake Superior State University
M.B.A., Davenport University
(231) 348-6820
mcolby@ncmich.edu

Cornett, Laurie

Secretary, Vice President of Student Affairs
A.A.S., North Central Michigan College
(231) 439-6510
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, Ed.D.

Vice President of Student Affairs
B.A., M.A., Eastern Michigan University
Ed.D., Ferris State University
(231) 348-6618
ndewinter@ncmich.edu

DeYoung, Renee

Director of Enrollment Services/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

Farver, Brady

Network Technician
B.S., Central Michigan University
(231) 348-6835
bfarver@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

Glasgow, Sara, Ph.D.

Associate Dean of Liberal Arts
B.A., Virginia Polytechnic Institute
M.A., Georgia Institute of Technology
M.S., Ph.D., University of Maryland
(231) 348-6604
sglasgow@ncmich.edu

Glines, Kevin

Directory & Trainer: Mobile CNC Manufacturing Lab
B.S., Industrial Design Art Institute of Philadelphia
(231) 439-6262
kglines@ncmich.edu

Greenacre, Randy

Physical Plant Staff
(231) 439-6385
rgreenacre@ncmich.edu

Hall, Debbie

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

Hamlin, Jon

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

Hartnett, David

Vice President of Finance and Facilities
B.A., University of Michigan
M.B.A., Wayne State University
(231) 348-6603
dhartnett@ncmich.edu

Hodulik, Eugene

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

Hofacker, Talia

Library and Instructional Technologies Technical
Assistant
B.A., Grand Valley State University
M.L.I.S., Wayne State University
(231) 439-6553
thofacker@ncmich.edu

King, Gena

Director of Learning Support Services
B.S., M.A., Central Michigan University
M.S., Grand Valley State University
(231) 348-6817
gking@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, Michelle

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

Leaver, Melanie

Assistant Dean of Instructional Technology
B.S., Ball State University
(231) 439-6350
mleaver@ncmich.edu

Leithauser, Helen

Business Training Coordinator, Corporate and
Community Education
B.G.S., University of Michigan
(231) 348-6705
hleithauser@ncmich.edu

Maier, Alex

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

Meister, Chris

Secretary, Associate Dean of Nursing,
Allied Health and Science
B.S., Central Michigan School
(231) 348-6696
cmeister@ncmich.edu

Miller, Pam, Ph.D.

Associate Dean of Business, Manufacturing
and Technology
B.A., DePaul University
M.S., Ferris State University
Ph.D., Western Michigan University,
(231) 348-6619
pmiller@ncmich.edu

Morris, Nicki

Records Assistant
A.A., North Central Michigan College
B.S., Lake Superior State University
(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., EMT-P, I/C

Vice President of Academic Affairs and
Student Success
B.A., University of Colorado
M.A., Ph.D., University of Michigan
(231) 348-6660
polson@ncmich.edu

Olmsted, Alan

Academic Advisor
B.S., Northern Michigan University
M.A., Northern Michigan University
M.A., University of New Mexico
(231) 348-6823
aolmsted@ncmich.edu

Otto, Liz

Secretary, Learning Support Services and
Tutorial Coordinator
A.A.S., North Central Michigan College

(231) 348-6693
eotto@ncmich.edu

Parsons, Leland

Librarian
A.A., North Shore Community College
B.G.S., University of Michigan
M.L.I.S., Wayne State University
(231) 348-6715
lparsons1@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
B.A., M.A., Central Michigan University
(231) 348-6825
dreeb@ncmich.edu

Rieck, Doug

Physical Plant Staff
(231) 439-6294
drieck@ncmich.edu

Roback, Tim

Physical Plant Staff
(231) 348-6702
troback@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

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

Wicker, Amy

Instructional Support Assistant
A.A., North Central Michigan College
(231) 348-6707
awicker1@ncmich.edu

Williams, Susan

Secretary, Corporate and Community Education
(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

Administrative Assistant, Vice President of Academic
Affairs 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

2014-15

Curriculum Guide



North Central Michigan College - Where your education ***matters!***

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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 degree, you will have gained and will be able to demonstrate knowledge and skills in the following areas:

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.

Broad integrative knowledge in 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.

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 use information from many resources.
- Describe how your knowledge of different cultural perspectives can help you 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.

Apply 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.); examine 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.

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 communication 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, human communication 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 that 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, political science, sociology and psychology.

Credits from students who have attended previous institutions will be evaluated and recorded as meeting 'MTA' requirements or North Central Michigan College's general education requirements, as long as their home institution considered those courses to satisfy general education requirements.

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

ENGLISH – 6 Credit hours:

| | | | |
|-----|-----|------------------------|---|
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |

COMMUNICATION – 3 Credit hours:

| | | | |
|-----|-----|-----------------------------|---|
| COM | 111 | Public Speaking | 3 |
| COM | 170 | Interpersonal Communication | 3 |

MATHEMATICS – 4 Credit hours:

| | | | |
|------|-----|----------------------------------|---|
| MATH | 126 | Math Elementary Teachers II | 3 |
| MATH | 128 | Quantitative Reasoning | 4 |
| MATH | 130 | College Algebra | 4 |
| MATH | 140 | Trigonometry | 4 |
| MATH | 150 | Analytic Geometry & Calculus I | 5 |
| MATH | 210 | Analytic Geometry & Calculus II | 5 |
| MATH | 215 | Analytic Geometry & Calculus III | 4 |
| MATH | 225 | Differential Equations | 3 |
| MATH | 235 | Linear Algebra | 3 |
| STAT | 200 | Statistics | 3 |

SCIENCE – 2 lab courses from two categories selected from the following list:

BIOLOGY

| | | | |
|-----|-----|---------------------------------|---|
| BIO | 101 | Introduction of Biology | 4 |
| BIO | 133 | Human Biology with Lab | 4 |
| BIO | 151 | General Biology I | 4 |
| BIO | 152 | General Biology II | 4 |
| BIO | 226 | Microbiology | 4 |
| BIO | 235 | General Anatomy & Physiology I | 4 |
| BIO | 236 | General Anatomy & Physiology II | 4 |

CHEMISTRY

| | | | |
|-----|-----|--------------------------------------|---|
| CEM | 101 | Fundamentals of Chemistry | 4 |
| CEM | 102 | Fundamentals of Bioorganic Chemistry | 5 |
| CEM | 121 | Principles of Chemistry I | 5 |

EARTH SCIENCE

| | | | |
|-----|-----|-------------------------------|---|
| ESC | 101 | Introduction to Earth Science | 4 |
| ESC | 110 | Environmental Geology | 4 |
| ESC | 121 | Physical Geology | 4 |
| ESC | 122 | The Earth Through Time | 4 |
| ESC | 150 | Weather and Climate | 4 |
| ESC | 201 | Foundations of Astronomy | 4 |

PHYSICS

| | | | |
|-----|-----|--------------------------------------|---|
| PHY | 101 | Concepts in Physics | 4 |
| PHY | 210 | General Physics I Lecture/Review/Lab | 5 |
| PHY | 230 | Physics for Scientists & Engineers I | 5 |

SOCIAL SCIENCE – 3 courses from at least two of the following categories:**ANTHROPOLOGY**

| | | | |
|-----|-----|--|---|
| ANP | 110 | Cultural Anthropology | 3 |
| ANP | 130 | Introduction to Prehistoric Archeology | 3 |
| ANP | 210 | Ethnology of World Cultures | 3 |

ECONOMICS

| | | | |
|-----|-----|----------------|---|
| ECO | 111 | Macroeconomics | 3 |
| ECO | 112 | Microeconomics | 3 |

GEOGRAPHY

| | | | |
|-----|-----|-----------------------|---|
| GEO | 111 | Elements of Geography | 3 |
| GEO | 121 | World Geography | 4 |

POLITICAL SCIENCE

| | | | |
|-----|-----|-------------------------------------|---|
| PLS | 141 | Introduction to American Government | 3 |
| PLS | 225 | State and Local Government | 3 |

PSYCHOLOGY

| | | | |
|-----|-----|----------------------------|---|
| PSY | 161 | Introduction to Psychology | 3 |
| PSY | 210 | Human Sexuality | 3 |
| PSY | 241 | Abnormal Psychology | 3 |
| PSY | 255 | Child Psychology | 3 |
| PSY | 261 | Developmental Psychology | 3 |

SOCIOLOGY

| | | | |
|-----|-----|------------------------------------|---|
| SOC | 171 | Introduction to Sociology | 3 |
| SOC | 175 | Introduction to Sustainable Living | 3 |
| SOC | 271 | Marriage and the Family | 3 |

HUMANITIES – 3 courses, from at least two of the following categories:**ART**

| | | | |
|------|-----|----------------------------|---|
| ARTH | 110 | History of Art I | 3 |
| ARTH | 111 | History of Art II | 3 |
| ARTH | 112 | History of Non-Western Art | 3 |

COMMUNICATION

| | | | |
|-----|-----|---|---|
| COM | 121 | Oral Interpretation | 3 |
| COM | 220 | Persuasion and Communication | 3 |
| COM | 225 | Nonverbal Communication | 3 |
| COM | 250 | Small Group Communication | 3 |
| COM | 260 | Social Media and Communication | 3 |
| COM | 290 | Public Relations and Crisis Communication | 3 |

HISTORY

| | | | |
|-----|-----|--------------------------------------|---|
| HST | 131 | U.S. History (1607-1877) | 3 |
| HST | 132 | History of U.S. 1877-Present | 3 |
| HST | 231 | Survey of Early Western Civilization | 3 |
| HST | 232 | Survey of Later Western Civilization | 3 |
| HST | 255 | History of Rock and Roll | 3 |
| HST | 270 | Michigan History | 3 |

PHILOSOPHY

| | | | |
|-----|-----|----------------------------|---|
| PHL | 101 | Introduction to Philosophy | 3 |
| PHL | 102 | Introduction to Logic | 3 |
| PHL | 105 | Introduction to Ethics | 3 |
| PHL | 109 | Contemporary Moral Issues | 3 |

RELIGION

| | | | |
|-----|-----|--------------------------------|---|
| REL | 100 | World Religion | 3 |
| REL | 102 | History of Religion in America | 3 |

ENGLISH

| | | | |
|-----|-----|---|---|
| ENG | 130 | Introduction to Literature | 3 |
| ENG | 213 | Shakespeare I | 3 |
| ENG | 215 | Introduction to Poetry | 3 |
| ENG | 221 | British Literature I | 3 |
| ENG | 222 | British Literature II | 3 |
| ENG | 231 | American Literature I | 3 |
| ENG | 232 | American Literature After the Civil War | 3 |
| ENG | 240 | Introduction to Children's Literature | 3 |
| ENG | 241 | World Literature, Ancient - 1700 | 3 |
| ENG | 242 | World Literature, 1700 - Present | 3 |
| ENG | 244 | Multicultural Literature | 3 |
| ENG | 250 | Mythology | 3 |
| ENG | 251 | Contemporary Literature I | 3 |
| ENG | 252 | Contemporary Literature II | 3 |

LANGUAGES OTHER THAN ENGLISH

| | | | |
|------|-----|---|---|
| FR | 111 | French (or higher) | 4 |
| NISH | 111 | Anishnaabemowin (or higher) (Excludes NISH150, 190, 245) | 4 |
| SPAN | 111 | Spanish (or higher) | 4 |
| RUS | 111 | Russian (or higher) | 4 |
| ARB | 111 | Arabic (or higher) | 5 |

MUSIC

| | | | |
|----|-----|------------------|---|
| MU | 120 | History of Music | 3 |
|----|-----|------------------|---|

THEATRE

| | | | |
|-----|-----|-----------------------|---|
| THF | 101 | Survey of the Theatre | 3 |
| THF | 250 | Film and Literature | 3 |
| THF | 276 | Contemporary Film | 3 |

Michigan Transfer Agreement (MTA)

The Michigan Transfer Agreement (MTA) replaces the MACRAO agreement beginning Fall 2014. Students who attended prior to fall 2014 will be able to complete the existing MACRAO agreement until the end of summer 2019.

The Michigan Transfer Agreement (MTA) is designed to facilitate transfer of general education requirements between institutions. One of the guiding principles of the agreement is to promote transparency among institutions and ensure accurate transfer information for students.

A student must successfully **complete at least 30 credits**, with **at least a 2.0 in each course**, to fulfill the Michigan Transfer Agreement (MTA). Credits from students who have attended previous institutions will be evaluated and recorded as meeting 'MTA' requirements or North Central Michigan College's general education requirements, as long their home institutions considered those courses to satisfy general education requirements. A student must earn at least one credit-bearing course at North Central to have the 'MTA Satisfied' posted on the North Central transcript.

Michigan Transfer Agreement (MTA) Requirements

- 1 Course in English Composition
- A second course in English Composition or 1 course in Communications
- 1 Course in Mathematics
- 2 Courses in Social Sciences (from two disciplines)
- 2 Courses in Humanities and Fine Arts (from two disciplines excluding studio and performance classes)
- 2 Courses in Natural Sciences including one with laboratory experience (from two disciplines)

Students earning an Associate of Arts or Associate of Science degree at North Central Michigan College will automatically have "MTA Satisfied" posted to their transcript, provided they meet the minimum grade requirement. All other students will need to submit a formal request to have their transcript evaluated for the "MTA Satisfied" designation.

For more information about the MTA, MTA Signatory Institutions and Michigan colleges and universities transfer equivalencies visit our website.

North Central courses satisfying the MTA by category:

TOTAL CREDITS Minimum 30 credits. Must receive 2.0 in each course to qualify.

English Composition: English 111 AND English 112, COM 111 or COM 170.

Mathematics: MATH 126, 128, 130, 140, 150, 210, 215, 225, 235; STAT 200.

Science: Must include two courses from at least two categories: BIO 101, 133, 151, 152, 226, 235, 236; CEM 101, 102, 121; ESC 101, 110, 121, 122, 150, 201, PHY 101, 210, 230.

Social Sciences: Must include two courses from at least two categories: ANP 110, 130, 210; ECO 111, 112; GEO 111, 121; PLS 141, 225; PSY 161, 210, 241, 255, 261; SOC 171, 175, 271.

Humanities: Must include two courses from at least two categories: ARTH 110, 111, 112; COM 121, 220, 225, 250, 260, 290; ENG 130, 213, 215, 221, 222, 231, 232, 240, 241, 242, 244, 250, 251, 252; HST 131, 132, 231, 232, 255, 270; LANGUAGES OTHER THAN ENGLISH – ARB 111 or Higher, FR 111 or Higher, NISH 111 or Higher (Excludes NISH 150, 190, 245), RUS 111 or Higher, or SPAN 111 or Higher; MU 120; PHL 101, 102, 105, 109; REL 100, 102; THF 101, 250, 276.

Associate of Arts (AA)

Program Code 300 • Credit Hours: 60

The Associate of Arts degree is for students who plan to transfer to a four-year college or university.
The Associate of Arts degree is appropriate for most transfer programs leading to a bachelor's degree.

| General Education | | 38 Minimum Credit Hours | |
|--------------------------|-----------------------|--|--|
| | English | 6 Credit Hours | ENG 111 ENG 112 |
| | Communications | 3 Credit Hours | COM 111 or COM 170 |
| | Mathematics | 4 Credit Hours | Math 126 or higher; STAT 200 |
| | Humanities | 9 Credit Hours | 3 course from at least 2 categories: ARTH 110, 111 or 112; COM 121, 220, 225, 250, 260 290; HST 131, 132, 231, 232, 255, 270; PHL 101, 102, 105 109; REL 100, 102; ENG 130, 213, 215, 221, 222, 231, 232, 240, 241, 242, 244, 250, 251, 252; MU 120; THF 101, 250, 276; LANGUAGES other than English at the 111 Level or higher (excludes NISH 150,190, 245) |
| | Science | 8-9 Credit Hours | 2 lab courses from at least 2 categories: BIO 101, 133, 151, 152, 226, 235, 236; CEM 101, 102, 121; ESC 101, 110, 121, 122, 150, 201 PHY 101, 210 or 230 |
| | Social Science | 9-10 Credit Hours | 3 course from at least 2 categories: ANP 110, 130, 210; ECO 111, 112; GEO 111, 121; PLS 141, 225; PSY 161, 210, 241, 255, 261, SOC 171, 275, or 271 |
| General Electives | | 19-22 Credit Hours to Complete 60 Minimum Credit Hours for Program. | 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 • Credit Hours: 60

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

| General Education | | 39 Minimum Credit Hours | |
|--|-----------------------|--|--|
| | English | 6 Credit Hours | ENG 111 ENG 112 |
| | Communications | 3 Credit Hours | COM 111 or COM 170 |
| | Mathematics | 4 Credit Hours | Math 130 or higher; STAT 200 |
| | Humanities | 9 Credit Hours | 3 course from at least 2 categories: ARTH 110, 111 or 112; COM 121, 220, 225, 250, 260 290; HST 131, 132, 231, 232, 255, 270; PHL 101, 102, 105 109; REL 100, 102; ENG 130, 213, 215, 221, 222, 231, 232, 240, 241, 242, 244, 250, 251, 252; MU 120; THF 101, 250, 276; LANGUAGES other than English at the 111 Level or higher (excludes NISH 150,190, 245) |
| | Science | 8-9 Credit Hours | 2 lab courses from at least 2 categories: BIO 101, 133, 151, 152, 226, 235, 236; CEM 101, 102, 121; ESC 101, 110, 121, 122, 150, 201 PHY 101, 210 or 230 |
| | Social Science | 9-10 Credit Hours | 3 course from at least 2 categories: ANP 110, 130, 210; ECO 111, 112; GEO 111, 121; PLS 141, 225; PSY 161, 210, 241, 255, 261, SOC 171, 275, or 271 |
| Science and Mathematics Electives | | 16 Credit Hours | Additional science, mathematics and statistics electives are required. Only math courses higher than MATH 130 are eligible as an elective. |
| General Electives | | 3-5 Credit Hours to Complete 60 Minimum Credit Hours for Program. | 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 • Credit Hours: 60

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 Michigan Transfer Agreement (MTA). 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.

| | | | |
|--------------------------|-----------------------|--|--|
| General Education | | 21 Minimum Credit Hours | |
| | English | 6 Credit Hours | ENG 111 ENG 112 |
| | Communications | 3 Credit Hours | COM 111 or COM 170 |
| | Mathematics | 3-4 Credit Hours | B104 or MATH 110 or Higher |
| | Humanities | 3 Credit Hours | 1 Course Refer to General Education Humanities Category on Page 6 |
| | Science | 3-4 Credit Hours | 1 Science Course Refer to General Education Science Category on Page 5 |
| | Social Science | 3-4 Credit Hours | 1 Course Refer to General Education Social Science Category on Page 6 |
| General Electives | | 36-39 Credit Hours to Complete 60 Minimum Credit Hours for Program. | 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, 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.
- 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.

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:

| | |
|---------|----------|
| B 200 | ECO 112 |
| B 211 | M 200 |
| B 212 | MATH 130 |
| B 290 | MATH 140 |
| CIS 100 | 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.

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 ARTS 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.

Human Services

AA Degree

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

Criminal Justice

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

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

- For Communications, choose COM 111
- For Natural Science Group A, 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 at (231) 439-6224, Student Services at (231) 348-6605 or LSSU's Petoskey office at (231) 348-6623. Students wishing to pursue the LSSU bachelor's degree should take the following General Education course:

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

Pre-Social Work

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

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

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

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

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

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 231 | PHY 210 | MATH 140 |
| CEM 122 | CEM 232 | PHY 211 | 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 122 | PHY 210* | CEM 231*** |
| CEM 121 | PSY 261 | PHY 211* | |

* 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 | MATH 140 | MATH 210 | MATH 225 |
| PHY 231 | MATH 150 | MATH 211 | |

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 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 at (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 212

CIS 105

MATH 130

B 211

CIS 100

CIS 115

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 Sciences | BIO 226 |
| Select CEM 121 for Group B Natural Sciences | BIO 265 |
| BIO 152 | MATH 140 |
| BIO 233 | CEM 122 |

Chemistry

| | |
|---|----------|
| Select PHY 230 for Group B Natural Sciences | CEM 232 |
| CEM 121 | MATH 140 |
| CEM 122 | MATH 150 |
| CEM 231 | PHY 231 |

Earth Science and Geology

| | |
|---|---------|
| Select ESC 121 for Group B Natural Sciences | CEM 121 |
| ESC 101 | CEM 122 |
| ESC 122 | PHY 101 |
| ESC 201 | PHY 210 |
| MATH 140 | PHY 211 |

Environmental Sciences and Natural Resources

| | |
|--|----------|
| Select BIO 151 for Group A Natural Sciences | BIO 265 |
| Select CEM 101 or 121 for Group B Natural Sciences | CEM 122 |
| BIO 152 | CEM 231 |
| BIO 233 | CEM 232 |
| | MATH 140 |

Physics and Astronomy

| | |
|---|--|
| Select CEM 121 for Group B Natural Sciences | MATH 140 |
| ESC 201 | MATH 150 |
| PHY 230 | MATH 210 |
| PHY 231 | MATH 215 |
| CEM 122 | 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.

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.

Certificate of Development Programs

North Central offers several certificates of development. These are fewer than 30 credit hours in length and help the student develop specific skills and knowledge.

Certificate Programs

Most certificate programs require 30 credit hours and can be completed with two semesters of full-time study. Many certificates follow a prescribed sequence that starts in the fall semester and is completed at the end of the winter semester. It is very important that students work with an advisor, as these programs often do not provide a great deal of flexibility. A certificate is not the same as a licensing exam or certification awarded by a national or regional accrediting association, although some programs prepare students to take licensing exams or participate in certification processes.

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

- 134 Animation (C)
- 107 Business of Art (CD)
- 132 Fine Craft (C)
- 113 Graphic Arts (CD)
- 133 Studio Art (C)
- 112 Textiles (CD)

Business

- 205 Accounting (AAS)
- 105 Accounting Assistant (C)
- 110 Advertising Assistant (C)
- 121 Bookkeeping (CD)
- 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)
- 277 Office Administrative Services (AAS)
- 270 OAS Medical Office Emphasis
- 158 Office Support Specialist (CD)
- 159 Receptionist (CD)
- 150 Small Business Mgt. (C)
- 108 Trucking (CD)
- 290 Wooden Boat Building (AAS)

Communications

- 136 Communication (C)
- 111 New Media (CD)

Criminal Justice

- 127 Corrections (State) (CD)
- 225 Criminal Justice (AAS)
- 226 Criminal Justice - Law Enforcement w/ NMC (AAS)
- 227 Criminal Justice - Law Enforcement w/ KCC (AAS)
- 125 Law Enforcement Aide (C)

Education

- 280 Early Childhood Education (AAS)

Health Sciences/Allied Health

- 197 Certified Nurse Aide (CD)
- 175 Eldercare (C)
- 253 EMS/Paramedic (AAS)
- 153 EMS/Paramedic (C)
- 152 EMS/Basic (CD)
- 053 EMT (non-degree)
- 180 Medical Assistant (C)
- 190 Medical Billing and Coding (C)
- 179 Medical Billing and Coding (CD)
- 163 Medical Transcriptionist (C)
- 256 Nursing (AAS)
- 295 LPN to RN Transition Program (AAS)
- 178 Phlebotomy Technician (CD)
- 258 Surgical Technologist (AAS)
- 183 Surgical Technologist (C)

Information Technology

- 114 CCNA Certification Preparation (CD)
- 106 CNC Machinist Technology (CD)
- 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)

Legal Assistant

- 276 Legal Assistant (AAS)
- 177 Legal Assistant (CD)

Natural Sciences

- 147 Grape Growing and Wine Making (CD)
- 247 Landscape & Nursery or Applied Plant Science w/ MSU (AAS)
- 246 Viticulture and Enology (AAS)
- 146 Viticulture and Enology (C)

Art

Animation

Certificate • Program Code: 134

Credit Hours: 32-33 • Contact Hours: 33-35

Associate Dean: Sara Glasgow

This certificate is designed for individuals working toward a career in the animation industry and/or related fields. Students who complete these foundational courses will gain exposure to real-world projects, be prepared to transfer to a four-year program, or enter the workforce as an entry-level animator.

Art is the expression or application of human creative skill and imagination, typically in a visual form, producing works to be appreciated for their beauty or emotional power.

| PROGRAM REQUIREMENTS | | | 32 CREDIT HOURS |
|-----------------------------|-----|---|------------------------|
| ANM | 110 | Animation I | 3 |
| ANM | 120 | Animation II | 3 |
| ANM | 140 | Character Design | 3 |
| ART | 100 | Two-Dimensional Design (<i>see ARTS 100</i>) | 3 |
| ART | 102 | Three-Dimensional Design (<i>see ARTS 101</i>) | 3 |
| ART | 109 | Basic Drawing and Composition (<i>see ARTS 102</i>) | 3 |
| ART | 112 | Life Drawing (<i>see ARTS 104</i>) | 3 |
| ENG | 290 | Introduction to Writing for Film & Video | 3 |
| MATH | 112 | Beginning & Intermediate Algebra or higher | 4 |
| PHY | 101 | Concepts in Physics or higher | 4 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|------|-----|---|
| ANM | 110 | Animation I |
| ARTS | 100 | Two-Dimensional Design |
| ARTS | 109 | Basic Drawing and Composition |
| MATH | 112 | Beginning and Intermediate Algebra (Part 2) |
| PHY | 101 | Concepts in Physics or higher |

SEMESTER II (WINTER)

| | | |
|------|-----|--|
| ANM | 120 | Animation II |
| ANM | 140 | Character Design |
| ARTS | 102 | Three-Dimensional Design |
| ARTS | 112 | Life Drawing |
| ENG | 290 | Introduction to Writing for Film & Video |

Business of Art

Certificate of Development • Program Code: 107

Credit Hours: 23 • Contact Hours: 23

Associate Dean: Sara Glasgow

This Certificate is designed to provide a foundation of study in the Business of Art by creating a workable business plan, finding and using various business funding mechanisms and gaining a solid foundation in art. Students who complete this certificate will be prepared to begin a studio practice or strengthen their existing business.

PROGRAM REQUIREMENTS

22 CREDIT HOURS

| | | | | |
|------|-----|----------------------------|-----------|---|
| ARTH | 110 | Art History I | OR | |
| ARTH | 111 | Art History II | OR | |
| ARTH | 112 | History of Non-Western Art | OR | |
| ARTH | 113 | History of Modern Art | | 3 |
| ARTS | 291 | The Business of Art I | | 3 |
| ARTS | 292 | The Business of Art II | | 3 |
| ARTS | 100 | Two-Dimensional Design | OR | |
| ARTS | 101 | Three-dimensional Design | OR | |
| ARTS | 103 | Color Theory | | 3 |
| ARTS | 290 | Portfolio Development | | 1 |
| B | 165 | Small Business Essentials | | 3 |
| ENG | 111 | English Composition I | | 3 |
| M | 200 | Introduction to Marketing | | 3 |

ADDITIONAL REQUIREMENTS

CHOOSE 1 CREDIT HOUR

| | | | | |
|-----|-----|---|--|---|
| OAS | 101 | Customer Service | | 1 |
| CAP | 100 | Computers for the Very Beginner | | 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)

| | | | | |
|------|-----|--------------------------|-----------|--|
| ARTS | 100 | Two-Dimensional Design | OR | |
| ARTS | 101 | Three-dimensional Design | OR | |
| ARTS | 103 | Color Theory | | |
| ARTS | 291 | The Business of Art I | | |
| ENG | 111 | English Composition I | | |
| | | 1 Art History | | |

SEMESTER II (WINTER)

| | | | | |
|------|-----|---------------------------|--|--|
| ARTS | 292 | The Business of Art II | | |
| ARTS | 290 | Portfolio Development | | |
| B | 165 | Small Business Essentials | | |
| M | 200 | Introduction to Marketing | | |
| | | 1 Additional Requirements | | |

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

Fine Craft

Certificate • Program Code: 132
 Credit Hours: 30 • Contact Hours: 30
 Associate Dean: Sara Glasgow

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

| | | | |
|---------------------------------------|-----|-------------------------------|---|
| GENERAL EDUCATION REQUIREMENTS | | 6 CREDIT HOURS | |
| ENG | 111 | English Composition I | 3 |
| COM | 111 | Public Speaking | 3 |
| PROGRAM REQUIREMENTS | | CHOOSE 3 CREDIT HOURS | |
| ARTS | 101 | Three-dimensional Design | 3 |
| ARTS | 102 | Basic Drawing and Composition | 3 |
| | | CHOOSE 3 CREDIT HOURS | |
| ARTS | 100 | Two-Dimensional Design | 3 |
| ARTS | 103 | Color Theory | 3 |
| | | CHOOSE 3 CREDIT HOURS | |
| ARTH | 110 | Art History I | 3 |
| ARTH | 111 | Art History II | 3 |
| ARTH | 112 | History of Non-Western Art | 3 |
| ARTH | 113 | History of Modern Art | 3 |
| ADDITIONAL REQUIREMENTS | | CHOOSE 15 CREDIT HOURS | |
| ARTS | 104 | Life Drawing | 3 |
| ARTS | 125 | Anishnaabe Art | 3 |
| ARTS | 200 | Ceramics I | 3 |
| ARTS | 201 | Ceramics II | 3 |
| ARTS | 204 | Ceramics Intensive | 3 |
| ARTS | 210 | Jewelry I | 3 |
| ARTS | 211 | Jewelry II | 3 |
| ARTS | 214 | Jewelry Intensive | 3 |
| ARTS | 220 | Textiles I Structure | 3 |
| ARTS | 221 | Textiles II Surface | 3 |
| ARTS | 224 | Textiles Studio Intensive | 3 |
| ARTS | 225 | Sustainable Textiles | 3 |
| ARTS | 230 | Survey of Glass Techniques I | 3 |
| ARTS | 231 | Survey of Glass Techniques II | 3 |
| ARTS | 234 | Glass Studio Intensive | 3 |
| ARTS | 240 | Stained Glass I | 3 |
| ARTS | 241 | Stained Glass II | 3 |
| ARTS | 244 | Stained Glass Intensive | 3 |
| ARTS | 290 | Portfolio Development | 1 |
| ARTS | 291 | The Business of Art | 3 |

Continued...

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

ENG 111 English Composition I
ARTS 100 Two-Dimensional Design **OR**
ARTS 103 Color Theory
1 Art History
2 Additional Requirements

SEMESTER II (WINTER)

COM 111 Public Speaking
ARTS 102 Basic Drawing and Composition **OR**
ARTS 101 Three-Dimensional Design
3 Additional Requirements

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

Graphic Arts

Certificate of Development • Program Code: 113

Credit Hours: 22 • Contact Hours: 22

Associate Dean: Sara Glasgow

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

21 CREDIT HOURS

| | | | |
|------|-----|-----------------------------------|---|
| ARTS | 100 | Two-Dimensional Design | 3 |
| ARTS | 103 | Color Theory | 3 |
| ARTS | 270 | Graphic Design I | 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 InDesign | 3 |

ADDITIONAL REQUIREMENTS

CHOOSE 1 CREDIT HOUR

| | | | |
|-----|-----|---|---|
| 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 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|------|-----|---------------------------------|
| ARTS | 100 | Two-Dimensional Design |
| ARTS | 103 | Color Theory |
| CAP | 135 | Web Page Design |
| CAP | 140 | Introduction to Adobe Photoshop |

SEMESTER II (WINTER)

| | | |
|---------------------------|-----|-----------------------------------|
| ARTS | 270 | Graphic Design I |
| CAP | 145 | Introduction to Adobe Illustrator |
| CAP | 150 | Introduction to Adobe InDesign |
| 1 Additional Requirements | | |

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

Studio Art

Certificate • Program Code: 133
 Credit Hours: 30 • Contact Hours: 30
 Associate Dean: Sara Glasgow

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

| | | | |
|---------------------------------------|-----|-------------------------------|-------------------------------|
| GENERAL EDUCATION REQUIREMENTS | | | 6 CREDIT HOURS |
| ENG | 111 | English Composition I | 3 |
| COM | 111 | Public Speaking | 3 |
| PROGRAM REQUIREMENTS | | | 6 CREDIT HOURS |
| ARTS | 101 | Three-dimensional Design | 3 |
| ARTS | 102 | Basic Drawing and Composition | 3 |
| | | | CHOOSE 3 CREDIT HOURS |
| ARTS | 100 | Two-Dimensional Design | 3 |
| ARTS | 103 | Color Theory | 3 |
| | | | CHOOSE 3 CREDIT HOURS |
| ARTH | 110 | Art History I | 3 |
| ARTH | 111 | Art History II | 3 |
| ARTH | 112 | History of Non-Western Art | 3 |
| ARTH | 113 | History of Modern Art | 3 |
| ADDITIONAL REQUIREMENTS | | | CHOOSE 12 CREDIT HOURS |
| ARTS | 104 | Life Drawing | 3 |
| ARTS | 250 | Oil Painting I | 3 |
| ARTS | 251 | Oil Painting II | 3 |
| ARTS | 254 | Oil Painting Studio Intensive | 3 |
| ARTS | 270 | Graphic Design I | 3 |
| ARTS | 271 | Graphic Design II | 3 |
| ARTS | 274 | Graphic Design Intensive | 3 |
| ARTS | 290 | Portfolio Development | 1 |
| ARTS | 291 | The Business of Art | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

ENG 111 English Composition I
 ARTS 100 Two-Dimensional Design **OR**
 ARTS 103 Color Theory
 ARTS 102 Basic Drawing and Composition
 2 Additional Requirements

SEMESTER II (WINTER)

COM 111 Public Speaking
 ARTS 101 Three-Dimensional Design
 1 Art History
 2 Additional Requirements

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

Textiles

Certificate of Development • Program Code: 112

Credit Hours: 22 • Contact Hours: 22

Associate Dean: Sara Glasgow

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

| | | | |
|------|-----|----------------------------|------------------------------|
| | | | CHOOSE 3 CREDIT HOURS |
| ARTH | 110 | Art History I | 3 |
| ARTH | 111 | Art History II | 3 |
| ARTH | 112 | History of Non-Western Art | 3 |
| ARTH | 113 | History of Modern Art | 3 |

CHOOSE 3 CREDIT HOURS

| | | | |
|------|-----|------------------------|---|
| ARTS | 100 | Two-Dimensional Design | 3 |
| ARTS | 103 | Color Theory | 3 |

CHOOSE 3 CREDIT HOURS

| | | | |
|------|-----|-------------------------------|---|
| ARTS | 101 | Three-Dimensional Design | 3 |
| ARTS | 102 | Basic Drawing and Composition | 3 |

TEXTILE CORE REQUIREMENTS

12 CREDIT HOURS

| | | | |
|------|-----|---------------------------|---|
| ARTS | 220 | Textiles I Structure | 3 |
| ARTS | 221 | Textiles II Surface | 3 |
| ARTS | 224 | Textiles Studio Intensive | 3 |
| ARTS | 225 | Sustainable Textiles | 3 |

ADDITIONAL REQUIREMENTS

CHOOSE 1-3 CREDIT HOUR

| | | | |
|------|-----|---|---|
| ARTS | 290 | Portfolio Development | 1 |
| ARTS | 291 | The Business of Art | 3 |
| CAP | 100 | Computers for the Very Beginner | 1 |
| OAS | 121 | Computer Keyboarding/Software Fundamentals | 3 |
| SD | 107 | Professional Development Skills | 1 |
| SOC | 115 | Anishinaabek Culture (required for WOCTEP students) | 1 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | | |
|-----------------------------|-----|------------------------|-----------|
| ARTS | 100 | Two-Dimensional Design | OR |
| ARTS | 103 | Color Theory | |
| 1 Art History | | | |
| 2 Textile Core Requirements | | | |

SEMESTER II (WINTER)

| | | | |
|-----------------------------|-----|-------------------------------|-----------|
| ARTS | 102 | Basic Drawing and Composition | OR |
| ARTS | 101 | Three-Dimensional Design | |
| 2 Textile Core Requirements | | | |
| 1 Additional Requirements | | | |

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

Business

Accounting

Associate of Applied Science • Program Code: 205

Credit Hours: 60 • Contact Hours: 60

Associate Dean: Pam Miller

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 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning OR | |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) or higher | 3-4 |

| 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 OR | |
| B | 291 | Business Law II | 3 |
| ECO | 111 | Macroeconomics OR | |
| ECO | 112 | Microeconomics | 3 |
| M | 200 | Introduction to Marketing | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |

ADDITIONAL REQUIREMENTS **CHOOSE 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 OR | |
| 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 |

Continued...

Course Recommendations:

Preferred option for the Communications requirement:

COM 111 Public Speaking

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

B 211 Accounting Principles I
ENG 111 English Composition I
B 104 Business Math **OR**
MATH 100 Mathematical Reasoning **OR**
MATH 110 Beginning and Intermediate Algebra (Part I) **or higher**
OAS 252 Microsoft Office for Windows
1 Additional Requirements

SEMESTER II (WINTER)

B 113 Computer Assisted Accounting
B 212 Accounting Principles II
ECO 111 Macroeconomics **OR**
ECO 112 Microeconomics
ENG 112 English Composition II
1 Additional Requirements

SEMESTER III (FALL)

B 213 Intermediate Accounting I
B 218 Cost Accounting I
B 290 Business Law I **OR**
B 291 Business Law II
M 200 Introduction to Marketing

SEMESTER IV (WINTER)

B 207 Business Communications
B 214 Intermediate Accounting II
B 216 Federal Taxation I
COM 111 Public Speaking **OR**
COM 170 Interpersonal Communication
1 Additional Requirements

Accounting Assistant

Certificate • Program Code: 105

Credit Hours: 31 • Contact Hours: 31

Associate Dean: Pam Miller

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

| PROGRAM REQUIREMENTS | | | 29 CREDIT HOURS |
|-----------------------------|-----|--|------------------------|
| B | 104 | Business Math | 3 |
| B | 113 | Computer Assisted Accounting | 3 |
| B | 211 | Accounting Principles I | 4 |
| B | 212 | Accounting Principles II | 4 |
| B | 290 | Business Law I OR | |
| B | 291 | Business Law II | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| OAS | 121 | Computer Keyboarding/Software Fundamentals OR | |
| OAS | 122 | Document Processing I | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |

| ADDITIONAL REQUIREMENTS | | | CHOOSE 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 | Business Math |
| ENG | 111 | English Composition I |
| OAS | 121 | Computer Keyboarding/Software Fundamentals OR |
| OAS | 122 | Document Processing I |
| B | 211 | Accounting Principles I |
| B | 290 | Business Law I OR |
| B | 291 | Business Law II |

SEMESTER II (WINTER)

| | | |
|--------------------------|-----|------------------------------|
| B | 113 | Computer Assisted Accounting |
| B | 212 | Accounting Principles II |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |
| 1 Additional Requirement | | |

Advertising Assistant

Certificate • Program Code: 110

Credit Hours: 30 • Contact Hours: 30

Associate Dean: Pam Miller • Faculty Contact: Chet Jessick

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

| PROGRAM REQUIREMENTS | | | 21 CREDIT HOURS |
|----------------------|-----|---|-----------------|
| ART | 109 | Basic Drawing and Composition (<i>see ARTS 102</i>) | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| M | 200 | Introduction to Marketing | 3 |
| M | 202 | Fundamentals of Advertising | 3 |
| M | 205 | Principles of Selling: Relationship & Leadership Edge | 3 |

| ADDITIONAL REQUIREMENTS | | | CHOOSE 9 CREDIT HOURS |
|---|------|-----------------------------------|-----------------------|
| Select courses from the following list to satisfy the remaining 9 credit hours of program requirements: | | | |
| B | 161 | Introduction to Business | 3 |
| B | 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 Strategy | 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 | Basic Drawing and Composition |
| ENG | 111 | English Composition I |
| M | 200 | Introduction to Marketing |
| M | 205 | Principles of Selling: Relationship & Leadership Edge |
| 1 Additional Requirements | | |

SEMESTER II (WINTER)

| | | |
|-----------------------------|-----|------------------------------|
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communications |
| ENG | 112 | English Composition II |
| M | 202 | Fundamentals of Advertising |
| 2-3 Additional Requirements | | |

Bookkeeping

Certificate of Development • Program Code: 121

Credit Hours: 18-19 • Contact Hours: 18-19

Associate Dean: Pam Miller

The Bookkeeping Certificate of Development covers the foundational knowledge and skills needed to help process a company's business transactions. Put your knack for numbers to good use as you learn more about real-world bookkeeping tasks through course-content that aligns with standards set by the American Institute of Professional Bookkeepers (AIPB).

Business owners, accounting clerks and traditional bookkeepers need up-to-date skills in modern bookkeeping systems and tools. Professional bookkeepers will always play key roles in business success, and the demand for bookkeepers skilled in the leading bookkeeping software is growing.

Training covers the major concepts and software products used in bookkeeping today including Intuit QuickBooks and Microsoft Excel.

| PROGRAM REQUIREMENTS | | | 18-19 CREDIT HOURS |
|-----------------------------|-----|---|---------------------------|
| B | 111 | Accounting Procedures OR | 3 |
| B | 211 | Principles of Accounting I | 4 |
| B | 113 | Computer-Assisted Accounting | 3 |
| B | 104 | Business Math | 3 |
| CAP | 125 | Microsoft Excel | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |
| OAS | 101 | Customer Service | 1 |
| OAS | 190 | Employability Skills | 1 |
| OAS | 103 | 10-Key Calculator and Keyboard Applications | 1 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS

SEMESTER I (FALL)

| | | |
|-----|-----|---|
| B | 104 | Business Math |
| B | 111 | Accounting Procedures OR |
| B | 211 | Principles of Accounting I |
| OAS | 101 | Customer Service |
| OAS | 103 | 10-Key Calculator and Keyboard Applications |
| OAS | 252 | Microsoft Office for Windows |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------------------|
| B | 113 | Computer-Assisted Accounting |
| CAP | 125 | Microsoft Excel |
| OAS | 190 | Employability Skills |

Business Development

Certificate of Development • Program Code: 119

Credit Hours: 16 • Contact Hours: 16

Associate Dean: Pam Miller

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. 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 | Microsoft Office for Windows | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|---------------------------------------|
| CAP | 100 | Computers for the Very Beginner |
| CAP | 102 | Web Design for Beginners |
| ENT | 120 | Financing an Entrepreneurial Business |
| ENT | 125 | Legal Issues for Entrepreneurs |

SEMESTER II (WINTER)

| | | |
|-----|-----|-----------------------------------|
| B | 103 | Basic Business Methods |
| B | 110 | Business Communication Essentials |
| ENT | 130 | Tax Law and Policy |
| OAS | 101 | Customer Service |
| OAS | 190 | Employability Skills |
| OAS | 252 | Microsoft Office for Windows |

Business Management

Associate of Applied Science • Program Code: 220

Credit Hours: 60 • Contact Hours: 60-61

Associate Dean: Pam Miller • 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.

| GENERAL EDUCATION REQUIREMENTS | | | 12-13 CREDIT HOURS |
|--------------------------------|-----|--|--------------------|
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning OR | |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) or higher | 3-4 |

| PROGRAM REQUIREMENTS | | | 38 CREDIT HOURS |
|----------------------|-----|---|-----------------|
| B | 161 | Introduction to Business | 3 |
| B | 200 | Principles of Management | 3 |
| B | 201 | Human Resource Management | 3 |
| B | 207 | Business Communications | 3 |
| B | 211 | Accounting Principles I | 4 |
| B | 212 | Accounting Principles II | 4 |
| B | 290 | Business Law I OR | |
| B | 291 | Business Law II | 3 |
| ECO | 111 | Macroeconomics OR | 3 |
| ECO | 112 | Microeconomics | 3 |
| M | 200 | Introduction to Marketing | 3 |
| M | 205 | Principles of Selling: Relationship & Leadership Edge | 3 |
| M | 220 | Marketing and Management Strategy | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |

| ADDITIONAL REQUIREMENTS | | | CHOOSE 9-10 CREDIT HOURS |
|--|-----|--------------------------------------|--------------------------|
| Students may take any course numbered 100 or higher to complete elective credit hours. | | | |
| B | 113 | Computerized Accounting | 3 |
| B | 165 | Small Business Essentials | 3 |
| B | 285 | Work-Based Learning, Business | 1-2 |
| CAP | 125 | Microsoft Excel | 3 |
| CAP | 130 | Microsoft Access | 3 |
| CAP | 135 | Web Design | 3 |
| CIS | 104 | Introduction to Programming Logic | 3 |
| CIS | 105 | Visual Basic Programming I OR | |
| CIS | 115 | C++ Programming I | 3 |
| ECO | 111 | Macroeconomics OR | |
| 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 |

Continued...

| | | | |
|------|-----|---------------------------------------|---|
| OAS | 190 | Employability Skills | 1 |
| PSY | 161 | Introduction to Psychology | 3 |
| SPAN | 111 | Elementary Spanish I or higher | 4 |
| B | 152 | Leadership Essentials | 4 |
| B | 222 | Leadership Development I | 4 |
| B | 232 | Leadership Development II | 4 |

Course Recommendations:

Preferred option for the Communications:

COM 170 Interpersonal Communication

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|------|-----|---|
| B | 161 | Introduction to Business |
| B | 211 | Accounting Principles I |
| ENG | 111 | English Composition I |
| M | 200 | Introduction to Marketing |
| B | 104 | Business Math OR |
| MATH | 100 | Mathematical Reasoning OR |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) or higher |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------------------|
| B | 200 | Principles of Management |
| B | 212 | Accounting Principle II |
| ENG | 112 | English Composition II |
| OAS | 252 | Microsoft Office for Windows |

SEMESTER III (FALL)

| | | |
|-----|-----|---|
| B | 201 | Human Resource Management |
| B | 290 | Business Law I OR |
| B | 291 | Business Law II |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communications |
| M | 205 | Principles of Selling: Relationship & Leadership Edge |
| ECO | 111 | Macroeconomics OR |
| ECO | 112 | Microeconomics |

SEMESTER IV (WINTER)

| | | |
|---------------------------|-----|-----------------------------------|
| B | 207 | Business Communications |
| M | 220 | Marketing and Management Strategy |
| 2 Additional Requirements | | |

Entrepreneurship

Certificate • Program Code: 151

Credit Hours: 31-32 • Contact Hours: 31-32

Associate Dean: Pam Miller

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

| PROGRAM REQUIREMENTS | | | 31-32 CREDIT HOURS |
|-----------------------------|-----|---|---------------------------|
| B | 104 | Business Math | 3 |
| B | 111 | Accounting Procedures OR | |
| B | 211 | Accounting Principles I | 3-4 |
| B | 113 | Computerized Accounting | 3 |
| COM | 111 | Public Speaking OR | |
| 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 | Business Math |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communications |
| ENG | 111 | English Composition I |
| ENT | 110 | Essentials of Entrepreneurship |
| ENT Electives (ENT 120-145) | | |

SEMESTER II (WINTER)

| | | |
|-----------------------------|-----|---|
| B | 111 | Accounting Procedures OR |
| B | 211 | Accounting Principles I |
| B | 113 | Computerized Accounting |
| ENT | 170 | Creative Blockbusting and Problem Solving |
| M | 200 | Introduction to Marketing |
| OAS | 101 | Customer Service |
| ENT Electives (ENT 120-145) | | |

Entrepreneurship Essentials

Certificate of Development • Program Code: 142
 Credit Hours: 16 • Contact Hours: 16
 Associate Dean: Pam Miller

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

| PROGRAM REQUIREMENTS | | | 16 CREDIT HOURS |
|-----------------------------|-----|---|------------------------|
| 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 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |

| ADDITIONAL REQUIREMENTS | | | CHOOSE 1 CREDIT HOURS |
|--------------------------------|-----|---|------------------------------|
| 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 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|---------------------------------------|
| B | 111 | Accounting Procedures |
| ENT | 110 | Essentials of Entrepreneurship |
| ENT | 120 | Financing an Entrepreneurial Business |
| ENT | 140 | Technology and Entrepreneurship |

SEMESTER II (WINTER)

| | | |
|---------------------------|-----|---|
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |
| ENT | 125 | Legal Issues for Entrepreneurs |
| ENT | 130 | Tax Law and Policy |
| ENT | 135 | Human Resource Issues in Entrepreneurship |
| ENT | 145 | Advertising and the Entrepreneur |
| 1 Additional Requirements | | |

General Office Professional

Certificate • Program Code: 165

Credit Hours: 30-31 • Contact Hours: 30-31

Associate Dean: Pam Miller • 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.

| PROGRAM REQUIREMENTS | | | 30-31 CREDIT HOURS |
|-----------------------------|-----|-----------------------------------|---------------------------|
| B | 104 | Business Math | 3 |
| B | 111 | Accounting Procedures | 3 |
| CAP | 125 | Microsoft Excel OR | |
| OAS | 224 | Transcription/Editing | 3-4 |
| 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:

SEMESTER I (FALL)

| | | |
|-----|-----|-----------------------------------|
| B | 104 | Business Math |
| B | 111 | Accounting Procedures |
| OAS | 141 | Filing and Records Management |
| OAS | 190 | Employability Skills |
| OAS | 224 | Transcription/Editing OR |
| CAP | 125 | Microsoft Excel |
| OAS | 254 | Desktop Publishing for the Office |

SEMESTER II (WINTER)

| | | |
|-----|-----|-----------------------------------|
| ENG | 111 | English Composition I |
| OAS | 101 | Customer Service |
| OAS | 122 | Document Processing I |
| OAS | 223 | Document Processing II |
| OAS | 241 | Administrative Procedures |
| OAS | 252 | Desktop Publishing for the Office |

Hospitality and Casino Management

Associate of Applied Science • Program Code: 218

Credit Hours: 60-61 • Contact Hours: 60-61

Associate Dean: Pam Miller

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 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |

PROGRAM REQUIREMENTS 20-22 CREDIT HOURS

| | | | |
|-----|------|---------------------------------|-----|
| B | 111 | Accounting Procedures OR | |
| B | 211 | Principles of Accounting I | 3-4 |
| 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 for Windows | 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 for assistance.

ADDITIONAL REQUIREMENTS CHOOSE 6 CREDIT HOURS

| | | | |
|---|-----|-----------------------------------|---|
| B | 201 | Human Resource Management | 3 |
| B | 212 | Accounting Principles II | 4 |
| B | 290 | Business Law I OR | |
| 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 |

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 |

Continued...

COURSE RECOMMENDATIONS:

Preferred options for the Social Sciences:

| | | |
|-----|-----|----------------|
| ECO | 111 | Macroeconomics |
| ECO | 112 | Macroeconomics |

SUGGESTED SEQUENCE FOR FULL TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|-----|-----|---------------------------------|
| B | 104 | Business Math |
| B | 111 | Accounting Procedures OR |
| B | 211 | Principles of Accounting I |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communications |
| ENG | 111 | English Composition I |
| M | 200 | Introduction to Marketing |

SEMESTER II (WINTER)

| | | |
|-----------------------------------|-----|------------------------------|
| B | 161 | Introduction to Business |
| B | 200 | Principles of Management |
| ENG | 112 | English Composition II |
| OAS | 101 | Customer Service |
| OAS | 252 | Microsoft Office for Windows |
| 1 Hospitality Management Elective | | |

SEMESTER III (FALL)

| | | |
|------------------------------------|-----|-------------------------|
| B | 207 | Business Communications |
| 1 Additional Requirement | | |
| 2 Hospitality Management Electives | | |
| 1 Social Science Elective | | |

SEMESTER IV (WINTER)

| | | |
|------------------------------------|-----|---------------------------------|
| HTM | 285 | Work-Based Learning-Hospitality |
| 1 Additional Requirement | | |
| 2 Hospitality Management Electives | | |
| 1 Social Science Elective | | |

Hospitality and Casino Management

Certificate • Program Code: 118

Credit Hours: 31-32 • Contact Hours: 31-32

Associate Dean: Pam Miller

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

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

PROGRAM REQUIREMENTS

| PROGRAM REQUIREMENTS | | | 19-20 CREDIT HOURS |
|----------------------|-----|---------------------------------|--------------------|
| B | 104 | Business Math | 3 |
| B | 111 | Accounting Procedures OR | |
| B | 211 | Accounting Principles I | 3-4 |
| B | 161 | Introduction to Business | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| OAS | 101 | Customer Service | 1 |
| OAS | 252 | Microsoft Office for Windows | 3 |

ADDITIONAL REQUIREMENTS

| ADDITIONAL REQUIREMENTS | | | CHOOSE 12 CREDIT HOURS |
|-------------------------|-----|--|------------------------|
| HTM | 121 | Introduction to the Hospitality Industry | 3 |
| HTM | 130 | Food and Beverage Management | 3 |
| HTM | 140 | Introduction to Gaming Management | 3 |
| HTM | 232 | Hospitality Law and Ethics | 3 |
| HTM | 240 | Casino Operations and Management I | 3 |
| HTM | 245 | Casino Operations and Management II | 3 |
| HTM | 250 | Casino Risk Management | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|--------------------------|-----|------------------------------|
| B | 161 | Introduction to Business |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communications |
| OAS | 101 | Customer Service |
| OAS | 252 | Microsoft Office for Windows |
| 1 Additional Requirement | | |

SEMESTER II (WINTER)

| | | |
|---------------------------|-----|---------------------------------|
| B | 104 | Business Math |
| B | 111 | Accounting Procedures OR |
| B | 211 | Accounting Principles I |
| ENG | 111 | English Composition I |
| 3 Additional Requirements | | |

Hotel and Hospitality

Certificate of Development • Program Code: 117

Credit Hours: 19-20 • Contact Hours: 19-20

Associate Dean: Pam Miller

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 | OR | |
| B | 211 | Principles of Accounting I | | 3-4 |
| 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 for Windows | | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | | | |
|-----|-----|--|-----------|--|
| B | 111 | Accounting Procedures | OR | |
| B | 211 | Principles of Accounting I | | |
| HTM | 121 | Introduction to the Hospitality Industry | | |
| HTM | 232 | Hospitality Law and Ethics | | |

SEMESTER II (WINTER)

| | | | | |
|-----|-----|------------------------------|--|--|
| COM | 170 | Interpersonal Communications | | |
| HTM | 130 | Food and Beverage Management | | |
| OAS | 101 | Customer Service | | |
| OAS | 252 | Microsoft Office for Windows | | |

Management

Certificate • Program Code: 149

Credit Hours: 31-32 • Contact Hours: 31-32

Associate Dean: Pam Miller • 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 OR | |
| B | 21 1 | Accounting Principles I | 3-4 |
| 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 | English Composition I |
| B | 111 | Accounting Procedures OR |
| B | 211 | Accounting Principles I |
| B | 104 | Business Math |
| COM | 170 | Interpersonal Communications |
| OAS | 101 | Customer Service |
| B | 161 | Introduction to Business |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------------------|
| ENG | 112 | English Composition II |
| M | 200 | Introduction to Marketing |
| B | 200 | Principles of Management |
| B | 201 | Human Resource Management |
| OAS | 252 | Microsoft Office for Windows |

Marketing

Associate of Applied Science • Program Code: 245

Credit Hours: 60 • Contact Hours: 60

Associate Dean: Pam Miller • 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.

GENERAL EDUCATION REQUIREMENTS 12-13 CREDIT HOURS

| | | | |
|------|-----|--|-----|
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning OR | |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) or higher | 3-4 |
| COM | 111 | Public Speaking OR | |
| 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 | |
| B | 291 | Business Law II | 3 |
| ECO | 111 | Macroeconomics OR | |
| ECO | 112 | Microeconomics | 3 |
| M | 200 | Introduction to Marketing | 3 |
| M | 202 | Fundamentals of Advertising | 3 |
| M | 204 | E-Commerce, Retailing & Services Management | 3 |
| M | 205 | Principles of Selling: Relationship & Leadership Edge | 3 |
| M | 220 | Marketing and Management Strategy | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |

ADDITIONAL REQUIREMENTS CHOOSE 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 (see ARTS 103) | 3 |
| ART | 109 | Basic Drawing and Composition (see ARTS 102) | 3 |
| B | 212 | Accounting Principles II | 4 |
| B | 290 | Business Law I OR | |
| 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 | |
| ECO | 112 | Microeconomics | 3 |
| M | 285 | Work-Based Learning-Marketing | 1-2 |
| M | 299 | Independent Study-Marketing | 3 |
| OAS | 101 | Customer Service | 1 |
| OAS | 190 | Employability Skills | 1 |
| PHO | 100 | Basic Photography (see PHO 107) | 3 |
| PHO | 120 | Digital Photography II | 3 |

Continued...

COURSE RECOMMENDATIONS:

Preferred option for the Mathematics requirement:

B 104 Business Math

Preferred option for the Communications requirement:

COM 170 Interpersonal Communication

Preferred option for the Social Science requirement:

ECO 111 Macroeconomics

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

B 200 Principles of Management
 ECO 111 Macroeconomics **OR**
 ECO 112 Microeconomics
 ENG 111 English Composition I
 M 200 Introduction to Marketing
 B 104 Business Math **OR**
 MATH 100 Mathematical Reasoning **OR**
 MATH 110 Beginning and Intermediate Algebra (Part I) **or higher**

SEMESTER II (WINTER)

COM 111 Public Speaking **OR**
 COM 170 Interpersonal Communications
 ENG 112 English Composition II
 M 202 Fundamentals of Advertising
 B 290 Business Law I **OR**
 B 291 Business Law II
 B 161 Introduction to Business

SEMESTER III (FALL)

B 211 Accounting Principles I
 OAS 252 Microsoft Office for Windows
 M 204 E-Commerce, Retailing & Service Management
 M 205 Principles of Selling: Relationship & Leadership Edge
 1 Additional Requirements

SEMESTER IV (WINTER)

B 207 Business Communications
 B 113 Computer Assisted Accounting
 M 220 Marketing and Management Strategy
 1-2 Additional Requirements

Marketing Assistant

Certificate • Program Code: 135

Credit Hours: 31 • Contact Hours: 31

Associate Dean: Pam Miller • 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 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3/3 |
| 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 | E-Commerce, Retailing & Service Management | 3 |
| M | 205 | Principles of Selling: Relationship & 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 for assistance.

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 OR | |
| B | 291 | Business Law II | 3 |
| COM | 111 | Public Speaking OR | |
| 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 | English Composition I |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communications |
| M | 200 | Introduction to Marketing |
| M | 204 | E-Commerce, Retailing & Services Management |
| M | 205 | Principles of Selling: Relationship & Leadership Edge |
| OAS | 252 | Microsoft Office for Windows |

SEMESTER II (WINTER)

| | | |
|--------------------------|-----|-----------------------------|
| ENG | 112 | English Composition II |
| B | 161 | Introduction to Business |
| M | 202 | Fundamentals of Advertising |
| 1 Additional Requirement | | |

Microsoft Office Specialist

Certificate of Development • Program Code: 109

Credit Hours: 17 • Contact hours: 17

Associate Dean: Pam Miller • 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 a 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 www.Microsoft.com/learning/en/us/certification/mos.aspx

PROGRAM REQUIREMENTS

17 CREDIT HOURS

| | | | |
|-----|-----|------------------------------|---|
| CAP | 125 | Microsoft Excel | 3 |
| CAP | 130 | Microsoft Access | 3 |
| OAS | 242 | Office Technology | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |
| OAS | 253 | Microsoft Word | 3 |
| OAS | 254 | Desktop Publishing | 2 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|------------------------------|
| OAS | 242 | Office Technology |
| OAS | 254 | Desktop Publishing |
| OAS | 252 | Microsoft Office for Windows |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------|
| CAP | 125 | Microsoft Excel |
| CAP | 130 | Microsoft Access |
| OAS | 253 | Microsoft Word |

Office Administrative Services

Associate of Applied Science • Program Code: 277

Credit Hours: 60 • Contact Hours: 60-61

Associate Dean: Pam Miller

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.

OAS Medical Office Emphasis

Associate of Applied Science • Program Code: 270

For a degree with a medical office emphasis may be earned by substituting:

- OAS 116 Medical Terminology for B 161 Introduction to Billing
- OAS 117 Medical Transcription for B 111/211 Accounting Procedures/Accounting Principles I
- OAS 216 (OR OAS 220 & 221) for all requirements

GENERAL EDUCATION REQUIREMENTS

| | | | |
|-----|-----|------------------------|---|
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |

12-14 CREDIT HOURS

| | | | |
|------|------|-------------------------------------|---|
| BIO | 133* | Introduction to Human Biology | 4 |
| COM | 111 | Public Speaking | 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 |

CHOOSE 6 CREDIT HOURS

*May be satisfied with AH 130.

PROGRAM REQUIREMENTS

| | | | |
|-----|-------|---------------------------------|-----|
| B | 104 | Business Math | 3 |
| B | 111 | Accounting Procedures OR | |
| B | 211 | Accounting Principles I | 3-4 |
| B | 161 | Introduction to Business | 3 |
| B | 207 | Business Communications | 3 |
| CAP | 125 | Microsoft 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 |

40-41 CREDIT HOURS

** OAS 122 has a prerequisite of OAS 121 or equivalent.

Continued...

ADDITIONAL REQUIREMENTS**5-8 CREDIT HOURS**

Choose from the following list:

| | | | |
|-----|--------|---------------------------------------|-----|
| B | 113 | Computer Assisted Accounting | 3 |
| B | 200 | Principles of Management | 3 |
| B | 290 | Business Law I OR | |
| 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 | Business Math |
| ENG | 111 | English Composition I |
| OAS | 141 | Filing and Records Management |
| OAS | 122 | Document Processing I |
| OAS | 224 | Transcription/Editing |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------------------|
| ENG | 112 | English Composition II |
| OAS | 101 | Customer Service |
| OAS | 223 | Document Processing II |
| OAS | 241 | Administrative Procedures |
| OAS | 252 | Microsoft Office for Windows |

1 Additional Requirement (Medical option: OAS 216 **OR** OAS 220 and 221)

SEMESTER III (FALL)

| | | |
|-----|-----|--|
| B | 207 | Business Communications |
| OAS | 190 | Employability Skills |
| OAS | 242 | Information Technology |
| OAS | 254 | Microsoft Office for Windows |
| B | 161 | Introduction to Billing (OR Medical option: OAS 116) |
| B | 111 | Accounting Procedures OR |
| B | 211 | Accounting Principles I (OR Medical option: OAS 117) |

SEMESTER IV (WINTER)

| | | |
|-----|-----|-------------------|
| CAP | 125 | Microsoft Excel I |
|-----|-----|-------------------|

2 General Education Requirement
1 Additional Requirement

Office Support Specialist

Certificate of Development • Program Code: 158

Credit Hours: 16 • Contact Hours: 16

Associate Dean: Pam Miller

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

PROGRAM REQUIREMENTS

16 CREDIT HOURS

| | | | |
|-----|-----|-------------------------------------|-----|
| B | 111 | Accounting Procedures OR | |
| OAS | 122 | Document Processing I | 3/3 |
| 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: Pam Miller

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

PROGRAM REQUIREMENTS

16 CREDIT HOURS

| | | | |
|-----|-----|-------------------------------|---|
| 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: Pam Miller • Faculty Contact: Chet Jessick

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

| PROGRAM REQUIREMENTS | | | 33-34 CREDIT HOURS |
|----------------------|-----|---|--------------------|
| B | 104 | Business Math | 3 |
| B | 165 | Small Business Essentials | 3 |
| B | 200 | Principles of Management | 3 |
| B | 111 | Accounting Procedures OR | |
| B | 211 | Accounting Principles I | 3-4 |
| B | 290 | Business Law I OR | |
| 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 & Service Management | 3 |
| M | 205 | Principles of Selling: Relationship & Leadership Edge | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|--|
| ENG | 111 | English Composition I |
| B | 111 | Accounting Procedures OR |
| B | 211 | Accounting Principles I |
| B | 104 | Business Math |
| M | 204 | E-Commerce, Retailing & Service Management |
| ENT | 110 | Essentials of Entrepreneurship |

SEMESTER II (WINTER)

| | | |
|-----|-----|---|
| M | 200 | Introduction to Marketing |
| M | 205 | Principles of Selling: Relationship & Leadership Edge |
| B | 165 | Small Business Essentials |
| B | 200 | Principles of Management |
| B | 290 | Business Law I OR |
| B | 291 | Business Law II |
| OAS | 252 | Microsoft Office for Windows |

Truck Driving

Certificate of Development • Program Code: 108

Credit Hours: 17 • Contact Hours: 40

Associate Dean: Pam Miller

North Central Michigan College is proud to offer the Truck Driver Certificate of Development program in cooperation with International Trucking School, Inc. This 15-week driver training program begins with classroom, lab, and focused independent study time, and ends with a 10-week paid internship of on-the-road experience. According to recent estimates, three out of every four tons of freight in the United States are moved by truck, and demand for drivers is expected to remain consistently high. This certificate of development program introduces students to the theoretical as well as practical skills necessary to obtain a commercial driving license, grade A and includes a very strong emphasis on safe driving practices in all phases of instruction.

TRK 100 contains four separate modules of instruction, each of which must be completed with a “C” or better. Upon successful completion of the first three modules, students will be placed with an approved carrier for approximately ten weeks of 40 hour per week driving.

ADMISSION REQUIREMENTS:

- Regular admission to North Central;
- Must be at least 21 years of age;
- Must have a high school diploma or GED;
- Must hold a valid driver’s license;
- Must have a driving record that will enable the applicant to obtain a Training Instruction Permit (TIP) from the Secretary of State;
- Must complete and pass the Department of Transportation physical examination and drug screening;
- Must meet the requirements of the Motor Carrier Federal Safety Regulations, Qualifications of Drivers.

PROGRAM REQUIREMENTS

TRK 100* Tractor-Trailer Operations

17 CREDIT HOURS

17

*Must be completed with a final grade of “C” or better

Wooden Boat Building

Associate of Applied Science • Program Code: 290

Credit Hours: 66 • Contact Hours: 66

Associate Dean: Pam Miller

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 at (231) 348-6698 before enrolling.

More information on GLBBS, including a description of the nine-month program, can be found at www.greatlakesboatbuilding.org.

PROGRAM REQUIREMENTS

66 CREDIT HOURS

NCMC REQUIREMENTS

34 CREDITS HOURS

PROGRAM REQUIREMENTS

28 CREDIT HOURS

| | | | |
|------|-----|---|---|
| ART | 102 | Three-Dimensional Design (<i>see ARTS 101</i>) | 3 |
| ART | 109 | Basic Drawing & Composition (<i>see ARTS 102</i>) | 3 |
| MATH | 100 | Mathematical Reasoning or higher | 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 |

ADDITIONAL REQUIREMENTS

CHOOSE 6 CREDITS HOURS

| | | | |
|-----|-----|--------------------------------|---|
| 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 | 107 | Digital Photography I | 3 |
| TDT | 130 | CAD I | 3 |
| TDT | 132 | CAD III | 3 |
| TDT | 140 | Architectural CAD | 3 |
| TDT | 150 | Mechanical CAD | 3 |

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)

Continued...

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | | |
|------|-----|---------------------------|---|
| ART | 102 | Three-Dimensional Design | 3 |
| B | 161 | Introduction to Business | 3 |
| CIS | 100 | Introduction to Computers | 3 |
| ENG | 111 | English Composition I | 3 |
| ENGR | 107 | Engineering Graphics | 3 |

SEMESTER II (WINTER)

| | | | |
|---------------------------|-----|---|---|
| ART | 109 | Basic Drawing & Composition | 3 |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 112 | English Composition II | 3 |
| MATH | 100 | Mathematical Reasoning or higher | 4 |
| 2 Additional Requirements | | | |

Communication

Communication

Certificate • Program Code: 136

Credit Hours: 30 • Contact Hours: 30

Associate Dean: Sara Glasgow • Faculty Contact: Jenny Maginnis

This certificate is designed to develop and advance students communication skills for personal and professional contexts. The interpersonal track focuses on dyad and small group communication leading to careers in social services, education, and human relations. The presentational track focuses on formal planned communication in groups leading to careers in business, leadership, and public relations.

| PROGRAM REQUIREMENTS | | | 18 CREDITS HOURS |
|-----------------------------|-----|-----------------------------|-------------------------|
| COM | 111 | Public Speaking | 3 |
| COM | 170 | Interpersonal Communication | 3 |
| COM | 260 | Social Media | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| PSY | 161 | Intro to Psychology | 3 |

CHOICE OF TRACK – INTERPERSONAL OR PRESENTATIONAL:

| INTERPERSONAL REQUIREMENTS | | | 6 CREDITS HOURS |
|-----------------------------------|-----|--------------------------|------------------------|
| COM | 225 | Nonverbal | 3 |
| PSY | 261 | Developmental Psychology | 3 |

OR

| PRESENTATIONAL REQUIREMENTS | | | 6 CREDITS HOURS |
|------------------------------------|-----|--------------------------|------------------------|
| COM | 121 | Oral Interpretation | 3 |
| COM | 211 | Advanced Public Speaking | 3 |

| PROGRAM ELECTIVES (FOR EITHER TRACK) | | | CHOOSE 6 CREDITS HOURS |
|---|-----|---|-------------------------------|
| ANP | 110 | Cultural Anthropology | 3 |
| B | 207 | Business Communication | 3 |
| COM | 220 | Persuasion and Communication | 3 |
| COM | 250 | Small Group | 3 |
| COM | 290 | Public Relations and Crisis Communication | 3 |
| SOC | 171 | Intro to Sociology | 3 |
| THF | 101 | Survey of Theatre | 3 |
| PLS | 141 | Introduction to American Government | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|---|-----|-----------------------|
| COM | 111 | Public Speaking |
| COM | 260 | Social Media |
| ENG | 111 | English Composition I |
| 1 Interpersonal/Presentational Requirements | | |
| 1 Program Elective | | |

SEMESTER II (WINTER)

| | | |
|---|-----|-----------------------------|
| COM | 170 | Interpersonal Communication |
| PSY | 161 | Intro to Psychology |
| ENG | 112 | English Composition II |
| 1 Interpersonal/Presentational Requirements | | |
| 1 Program Elective | | |

New Media

Certificate of Development • Program Code: 111

Credit Hours: 16 • Contact Hours: 16

Associate Dean: Pam Miller

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 |

ADDITIONAL REQUIREMENTS

CHOOSE 1 CREDIT HOUR

| | | | |
|-----|-----|---|---|
| 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 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|-------------------------------------|
| CAP | 135 | Web Page Design |
| CAP | 140 | Introduction to Adobe Photoshop |
| CAP | 160 | Introduction to Digital Audio/Video |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------------------|
| CAP | 210 | Advanced Web Page Design |
| CAP | 215 | Advanced Digital Audio/Video |

1 Additional Requirement

Criminal Justice

Corrections (State)

Certificate of Development • Program Code: 127

Credit Hours: 17 • Contact Hours: 17

Associate Dean: Pam Miller • 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 17-credit hour program provides students with the minimum academic credits* necessary for employment as a Corrections Officer with the Michigan Department of Corrections (MDOC). Students may take the State "Entry-Level Security Exam" at any time by submitting an application to the Michigan Department of Civil Service.** Students who meet the educational requirements and pass the Civil Service examination will be eligible for further consideration.

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

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

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

| PROGRAM REQUIREMENTS | 17 TOTAL CREDIT HOURS |
|--|------------------------------|
| CJ 120 Introduction to Corrections | 3 |
| PE 116 Introduction to Physical Conditioning | 1 |
| PE 216 Advanced Physical Conditioning | 1 |

| ADDITIONAL REQUIREMENTS | CHOOSE 12 CREDIT HOURS |
|---|-------------------------------|
| Plus a total of 12 credits selected from the following courses: | |
| 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 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS AT NORTH CENTRAL:

SEMESTER I (FALL)

| | |
|--------------------------|---------------------------------------|
| CJ 120 | Introduction to Corrections |
| PE 116 | Introduction to Physical Conditioning |
| 1 Additional Requirement | |

SEMESTER I (SUMMER)

| | |
|--------------------------|--------------------------------|
| PE 216 | Advanced Physical Conditioning |
| 3 Additional Requirement | |

Criminal Justice

Associate of Applied Science • Program Code: 225

Credit Hours: 60 • Contact Hours: 60

Associate Dean: Pam Miller • 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 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning OR | |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) or higher | 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 OR | |
| PHL | 109 | Contemporary Moral Issues | 3 |
| PSY | 161 | Introduction to Psychology | 3 |
| SOC | 171 | Introduction to Sociology | 3 |
| ADDITIONAL REQUIREMENTS | | | 8-9 CREDIT HOURS |
| Any courses numbered 100 or higher | | | |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|---------------------------|-----|--|
| CJ | 102 | Introduction to Criminal Justice |
| CIS | 100 | Introduction to Computers |
| ENG | 111 | English Composition I |
| B | 104 | Business Math OR |
| MATH | 100 | Mathematical Reasoning OR |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) or higher |
| 1 Additional Requirements | | |

Continued...

SEMESTER II (WINTER)

CJ 101 Criminology
ENG 112 English Composition II
PSY 161 Introduction to Psychology
SOC 171 Introduction to Sociology
1 Additional Requirements

SEMESTER III (FALL)

CJ 120 Introduction to Corrections
CJ 130 Police Process
CJ 207 Criminal Law
PHL 105 Introduction to Ethics **OR**
PHL 109 Contemporary Moral Issues
PLS 141 American Government

SEMESTER IV (WINTER)

CJ 202 Criminal Investigation
CJ 210 Current Issues in Criminal Justice
CJ 217 Criminal Procedures

COM 111 Public Speaking **OR**
COM 170 Interpersonal Communication
1 Additional Requirements

Criminal Justice

Associate of Applied Science in Law Enforcement

Program Code: 226 • Credit Hours: 67 • Contact Hours: 67
Associate Dean: Pam Miller • 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 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| MATH | 110 | Beginning and Intermediate 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 | English Composition I |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |
| PSY | 161 | Introduction to Psychology |
| CJ | 102 | Introduction to Criminal Justice |
| CJ | 120 | Introduction to Corrections |

SEMESTER II (WINTER)

| | | |
|------|-----|---|
| ENG | 112 | English Composition II |
| CIS | 100 | Introduction to Computers |
| CJ | 101 | Criminology |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) |
| PLS | 141 | Introduction to American Government |

Criminal Justice

Associate of Applied Science in Law Enforcement

Program Code: 227 • Credit Hours: 63 • Contact Hours: 63
Associate Dean: Pam Miller • 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.

| NORTH CENTRAL MICHIGAN COLLEGE COURSES | | | 42 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 |
| CJ | 130 | Police Process | 3 |
| CJ | 210 | Current Issues in Criminal Justice | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) | 4 |
| PE | 116* | Physical Conditioning I | 1 |
| PE | 216* | Physical Conditioning II | 1 |
| 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 | Introduction to Computers |
| PSY | 161 | Introduction to Psychology |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) |

SEMESTER II (FALL)

| | | |
|-----|-------|------------------------------------|
| CJ | 102 | Introduction to Criminal Justice |
| CJ | 120 | Introduction to Corrections |
| CJ | 130 | Police Process |
| CJ | 210 | Current Issues in Criminal Justice |
| PE | 116 | Physical Conditioning I |
| ENG | 111** | English Composition I |

Continued...

SEMESTER III (WINTER)

Starting semester to enter the following January academy

| | | |
|-----|-----|-------------------------------------|
| CJ | 101 | Criminology |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |
| ENG | 112 | English Composition II |
| PLS | 141 | Introduction to American Government |
| PE | 216 | Physical Conditioning II |
| ENG | 112 | English Composition II |
| SOC | 171 | Introduction to Sociology |

*PE 116 must be taken before PE 216

**Depending on the starting semester

Law Enforcement Aide

Certificate • Program Code: 125

Credit Hours: 31 • Contact Hours: 31

Associate Dean: Pam Miller • 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.

PROGRAM REQUIREMENTS

31 CREDIT HOURS

| | | | |
|-----|-------|------------------------------------|---|
| 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 OR | |
| 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 | English Composition I |
| COM | 170 | Interpersonal Communication |
| CJ | 102 | Introduction to Criminal Justice |
| OAS | 141 | Filing and Records Management |
| OAS | 121 | Keyboarding OR |
| OAS | 122 | Document Processing I |
| CAP | 101 | Internet Searching and Researching |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------------------|
| B | 104 | Business Math |
| CJ | 101 | Criminology |
| OAS | 101 | Customer Service |
| OAS | 252 | Microsoft Office for Windows |
| OAS | 241 | Administrative Procedures |
| OAS | 285 | Work-Based Learning – OAS |

Education

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 | | | 26 CREDIT HOURS |
|---------------------------------------|-----|--|------------------------|
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| COM | 111 | Public Speaking | 3 |
| PSY | 161 | Intro to Psychology (elementary teacher certification) OR | |
| SOC | 171 | Intro to Sociology (human services) | 3 |
| BIO | 101 | Intro to Biology (elementary teacher certification) OR | |
| BIO | 133 | Human Biology (human services) | 4 |
| LAB | | Science course from CEM, ESC, PHY OR | |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) OR | |
| MATH | 120 | Intermediate Algebra or higher | 4 |
| ART | 105 | Art History I OR (see ARTS 110) | |
| ART | 106 | Art History II (see ARTS 111) | 3 |
| MU | 120 | History of Music | 3 |

Continued...

| PROGRAM REQUIREMENTS | | | 34-35 CREDIT HOURS |
|----------------------|------|--|--------------------|
| 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:

SEMESTER I (FALL)

| | | |
|-----|-----|--|
| ENG | 111 | English Composition I |
| PSY | 161 | Intro to Psychology (elementary teacher certification) OR |
| SOC | 171 | Intro to Sociology (human services) |
| COM | 111 | Public Speaking |
| ECE | 200 | Foundations of Early Childhood Education |
| ECE | 215 | Child Guidance and Communication Skills |

SEMESTER II (WINTER)

| | | |
|-----|-----|---|
| ENG | 112 | English Composition II |
| PSY | 255 | Child Psychology |
| BIO | 101 | Intro to Biology (elementary teacher certification) OR |
| BIO | 133 | Human Biology (human services) |
| ECE | 205 | Curriculum and Methods |
| ECE | 220 | Children with Special Needs |

SEMESTER III (FALL)

| | | |
|------|-----|--|
| ENG | 240 | Children's Literature |
| MU | 120 | History of Music |
| ECE | 210 | Infants and Toddlers |
| ECE | 225 | Administration of Early Childhood Programs |
| LAB | | Science course from CEM, ESC, PHY OR |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) OR |
| MATH | 120 | Intermediate Algebra or higher |

SEMESTER IV (WINTER)

| | | |
|-----|-----|--|
| EMS | 101 | First Aid/CPR or current certification |
| ART | 105 | Art History I OR |
| ART | 106 | Art History II |
| SOC | 271 | Marriage and Family |
| ECE | 282 | Practicum/Seminar |

Health Sciences/Allied Health

Certified Nurse Aide

Certificate of Development • Program Code: 197

Credit Hours: 19 • Contact Hours: 19

Associate Dean: René Bieganowski

Students who complete AH 154, Certified Nurse Aide Training, will be eligible to take the certified nurse aid (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 the additional courses in North Central's Certificate of Development program, which includes both AH 154, Certified Nurse Aide Training and AH 254, Advanced CNA Skills, will be better prepared for advanced employment in the healthcare field, as well as in further North Central healthcare courses and programs.

CNA training includes classroom instruction, hands-on practice in a college CNA laboratory and clinical instruction in a long-term care facility. AH 154, Certified Nurse Aide Training, may be offered in both four-week and full-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

19 CREDIT HOURS

| | | | |
|-----|-----|--------------------------------------|---|
| AH | 154 | Certified Nurse Aide Training | 5 |
| AH | 254 | Advanced Certified Nurse Aide Skills | 4 |
| ENG | 111 | English Composition I | 3 |
| OAS | 116 | Medical Terminology | 3 |
| COM | 170 | Interpersonal Communication | 3 |

ADDITIONAL REQUIREMENTS

CHOOSE ONE COURSE

| | | | |
|-----|-----|---|---|
| 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 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|-------------------------------|
| ENG | 111 | English Composition I |
| AH | 154 | Certified Nurse Aide Training |
| OAS | 116 | Medical Terminology |

SEMESTER II (WINTER)

| | | |
|--------------------------|-----|--------------------------------------|
| AH | 254 | Advanced Certified Nurse Aide Skills |
| COM | 170 | Interpersonal Communication |
| 1 Additional Requirement | | |

Eldercare

Certificate • Program Code: 175
Credit Hours: 42-45 • Contact Hours: 45-50
Associate Dean: René Bieganowski

The Eldercare Certificate program offers committed students the opportunity to help address the challenges facing an aging population as they confront a variety of decisions ranging from healthcare, fiscal, and legal issues to questions involving ethics, death and dying, and communicating effectively across generations.

GENERAL EDUCATION REQUIREMENTS **6-7 CREDIT HOURS**

| | | | |
|------|-----|---|-----|
| ENG | 111 | English Composition I | 3 |
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning OR | |
| MATH | 112 | Intermediate Algebra (Part II) or higher | 3-4 |

PROGRAM REQUIREMENTS **36-38 CREDIT HOURS**

MEDICAL ASPECTS OF ELDERCARE **12 HOURS TOTAL**

| | | | |
|-----|-----|---|---|
| AH | 154 | Certified Nurse Aide Training, AND | 5 |
| AH | 254 | Advanced Certified Nurse Aide Training | 4 |
| | | OR | |
| EMS | 110 | EMT-Basic | 9 |
| AH | 180 | Pharmacology for Allied Health, OR | |
| HE | 200 | Nutrition | 3 |

MEDICAL SYSTEM NAVIGATION **14 HOURS TOTAL**

| | | | |
|-----|-----|----------------------------------|---|
| AH | 118 | Navigating the Healthcare System | 3 |
| OAS | 101 | Customer Service | 1 |
| OAS | 116 | Medical Terminology | 3 |
| OAS | 220 | Beginning Medical Coding | 2 |
| OAS | 221 | Beginning Medical Billing | 2 |
| B | 155 | Personal Finance, OR | |
| LA | 206 | Probate Law | 3 |

HUMANISTIC ASPECTS OF ELDERCARE **9 HOURS TOTAL**

| | | | |
|-----|-----|-----------------------------|---|
| COM | 170 | Interpersonal Communication | 3 |
| PHL | 120 | Eldercare Ethics | 3 |
| SOC | 220 | Death and Dying | 3 |

ELDERCARE WORK-BASED LEARNING (OPTIONAL) **1-3 HOURS**

| | | | |
|----|-----|--|-----|
| AH | 292 | Work-Based Learning-Eldercare (optional) | 1-3 |
|----|-----|--|-----|

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | | |
|------|-----|--|--|
| ENG | 111 | English Composition | |
| B | 104 | Business Math, OR | |
| MATH | 100 | Mathematical Reasoning, OR | |
| MATH | 112 | Intermediate Algebra (Part II), or higher | |
| OAS | 116 | Medical Terminology | |
| AH | 118 | Navigating the Healthcare System | |

Continued...

SEMESTER II (WINTER)

| | | |
|-----|-----|---|
| AH | 154 | Certified Nurse Aide Training OR |
| EMS | 110 | EMT-Basic |
| AH | 180 | Pharmacology for Allied Health |
| OAS | 220 | Beginning Medical Coding |
| OAS | 221 | Beginning Medical Billing |

SEMESTER III (FALL)

| | | |
|-----|-----|--|
| AH | 254 | Advanced Certified Nurse Aide Training |
| OAS | 101 | Customer Service |
| LA | 206 | Probate Law |
| COM | 170 | Interpersonal Communication |

SEMESTER IV (WINTER)

| | | |
|-----|-----|--|
| PHL | 120 | Eldercare Ethics |
| SOC | 220 | Death and Dying |
| AH | 292 | Work-Based Learning-Eldercare (optional) |

Emergency Medical Services/Paramedic Program

The mission of the EMS/Paramedic Program at North Central Michigan College is to prepare students in the most effective way to become intelligent, competent and compassionate providers of emergency care. 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, are overseen by a physician director, advised by a committee of area EMS providers and employers and meet or exceed national guidelines.

North Central offers students four EMS programs - two leading to licensure as an EMT-Paramedic (Program Codes 253 and 153) and two leading to licensure as an EMT-Basic (Program Codes 152 and 053). In addition, successful completion of EMS 120 and EMS 130 enables the student to sit for National Registry certification and, if successful, eventual licensure as an EMT-Specialist in Michigan (see below for more information).

The Associate of Applied Science degree (Program Code 253) prepares students to function at advanced levels for pre-hospital emergency support services. Successful graduates are eligible to sit for the National Registry Exam which opens employment opportunities in many other states in the pre-hospital fields of EMS, public safety and fire rescue. Graduates may also 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.

Admission to the College (and, by separate application, to the Program itself) is required, assessment testing is required and financial aid may be available. The program also requires that students commit time (approximately 75 hours per semester) 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.

The Associate of Applied Science degree is frequently considered the minimum qualification necessary to be employed in management positions in EMS; in terms of preparation for licensure as an EMT-Paramedic, the Associate of Applied Science degree (Program Code 253) and the EMS/Paramedic Certificate (Program Code 153) are identical.

Successful completion of EMS 120 and EMS 130 enables the student to sit for the Advanced EMT National Registry Exam (leading to licensure as an EMT-Specialist in Michigan.) Students wishing to gain experience as EMT-Specialists may elect to leave the program and work 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 and EMS 130.

Students who already possess National Registry status as EMT-Specialists or possess a Michigan EMT-Specialist license must begin the paramedic program with EMS 120 unless they have successfully completed EMS 120 and EMS 130 at North Central within one year of the time of registration into EMS 220.

The EMS/Paramedic Certificate (Program Code 153) prepares students to function at advanced levels for pre-hospital emergency support services. Successful graduates are eligible to sit for the National Registry Exam which opens employment opportunities in many other states in the pre-hospital field of EMS, public safety and fire rescue. Graduates may also 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.

Admission to the College (and, by separate application, to the Program itself) is required, assessment testing is required and financial aid may be available. The program also requires that students commit time (approximately 75 hours per semester) 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.

The Associate of Applied Science degree is frequently considered the minimum qualification necessary to be employed in management positions in EMS; in terms of preparation for licensure as an EMT-Paramedic, the

Associate of Applied Science degree (Program Code 253) and the EMS/Paramedic Certificate (Program Code 153) are identical.

Successful completion of EMS 120 and EMS 130 enables the student to sit for the Advanced EMT National Registry Exam (leading to licensure as an EMT-Specialist in Michigan.) Students wishing to gain experience as EMT-Specialists may elect to leave the program and work 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 and EMS 130.

Students who already possess National Registry status as EMT-Specialists or possess a Michigan EMT-Specialist license must begin the paramedic program with EMS 120 unless they have successfully completed EMS 120 and EMS 130 at North Central within one year of the time of registration into EMS 220.

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

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 an Emergency Medical Technician—Basic in the pre-hospital field of EMS, public safety and fire rescue in many states. This is a non-degree program.

Application Procedure for EMS/Paramedic Program ·Program Codes 253 and 153 only·

Students must complete an Application for Admission to the College as well as a separate EMS/Paramedic Program Application (which is part of the “Allied Health Program Application,” available here: www.ncmich.edu/pdfs/Allied_Health_Application.pdf); this application should be sent directly to the Associate Dean of Nursing, Allied Health and Science by July 1 for anticipated September entry. All transcripts to be reviewed for consideration of prior course work should be received by the Registrar at North Central prior to consideration for 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 National Registry examination and/or be licensed by the State of Michigan. Contact the Michigan Department of Community Health (517-241-3024 or www.michigan.gov/mdch/0,1607,7-132-2946_5093_28508---,00.html) and/or the National Registry of EMTs ((614) 888-4484, or www.nremt.org) for more information regarding this policy.

Students interested in the EMS/Paramedic program are encouraged to contact the Associate Dean of Nursing, Allied Health and Science 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 summer preceding each September 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 July 1 of the year of their anticipated September entry.

Students are ranked on the basis of the following:

- Successful completion of EMS 110 (students may apply to the Program before they have successfully completed the National Registry EMT-Basic exam, but they must successfully complete the Registry EMT-Basic exam before they will be allowed to enter EMS 130, if admitted to the Program),
- 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 higher and MATH 110 or higher)
- Relevant work and/or volunteer experience, as demonstrated on the Visit, Volunteer, Work Experience Form (part of the Allied Health Program Application).

These admission requirements reflect the College's commitment to equal opportunity and treatment of students.

Since the EMS/Paramedic program is rigorous and demanding, a good state of physical and emotional health is necessary. Interested students are encouraged to consult the North Central Michigan College Allied Health 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 (and maintain 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 annual influenza immunization;
 - proof of measles, mumps, rubella immunization (or titre);
- Submit proof of and 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;
- Submit proof of and maintain current Basic Life Support for Healthcare Providers status.

The EMS/Paramedic Program reserves the right, as part of its normal review of students who have been placed on probationary status in the program (see the Allied Health Student Handbook) to ask students to leave the program at any time or at the completion of EMS 130 (allowing these students to pursue certification/licensure as Advanced EMTs (National Registry) or EMT-Specialists (Michigan)).

Occasionally, depending on enrollment applications to the EMS/Paramedic program, a limited number of slots in EMS 120 and EMS 130 will be available to students wishing only to pursue the option of testing at the AEMT level from the National Registry (leading to licensure as an EMT-Specialist in Michigan). The application procedure for these students is identical to the regular EMS/Paramedic program (either Program Code 253 or 153) and these students will follow the same curriculum (including the co-requisite to EMS 120, BIO 133) as those admitted to the paramedic program at the same time for EMS 120 and 130. These students, however, will not be allowed to continue into EMS 220, 230 and 270 unless slots become available through attrition.

Emergency Medical Services/Paramedic

Associate of Applied Science • Program Code: 253

Credit Hours: 69 • Contact Hours:89

Associate Dean: René Bieganowski

The mission of the EMS/Paramedic Program at North Central Michigan College is to prepare students in the most effective way to become intelligent, competent and compassionate providers of emergency care.

The Associate of Applied Science degree (Program Code 253) prepares students to function at advanced levels for pre-hospital emergency support services. Successful graduates are eligible to sit for the National Registry Exam which opens employment opportunities in many other states in the pre-hospital field of EMS, public safety and fire rescue. Graduates may also 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.

Admission to the College (and, by separate application, to the Program itself) is required, assessment testing is required and financial aid may be available. The 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.

The Associate of Applied Science degree is frequently considered the minimum qualification necessary to be employed in management positions in EMS; in terms of preparation for licensure as an EMT-Paramedic, the Associate of Applied Science degree (Program Code 253) and the EMS/Paramedic Certificate (Program Code 153) are identical.

Successful completion of EMS 120 and EMS 130 enables the student to sit for the Advanced EMT National Registry Exam (leading to licensure as an EMT-Specialist in Michigan). Students wishing to gain experience as EMT-Specialists may elect to leave the program and work 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 and EMS 130.

Students who already possess National Registry status as EMT-Specialists or possess a Michigan EMT-Specialist license must begin the paramedic program with EMS 120 unless they have successfully completed EMS 120 and EMS 130 at North Central within one year of the time of registration into EMS 220.

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

PREREQUISITES

Current Michigan EMT Basic License. Placement into ENG 111 and MATH 110.

GENERAL EDUCATION REQUIREMENTS

26 CREDIT HOURS

| | | | |
|------|------|--|---|
| EMS | 110 | EMT Basic | 9 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| MATH | 112* | Beginning and Intermediate Algebra (Part II) | 4 |
| COM | 170 | Interpersonal Communication | 3 |
| CEM | 101 | Fundamentals of Chemistry | 4 |

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

Continued...

PROGRAM REQUIREMENTS**43 CREDIT HOURS**

| | | | |
|-----|------|----------------------------|----|
| EMS | 120 | Paramedic I | 6 |
| BIO | 133* | Human Biology with Lab | 4 |
| EMS | 130 | Paramedic II | 9 |
| EMS | 220 | Paramedic III | 10 |
| EMS | 230 | Paramedic IV | 10 |
| EMS | 270 | Paramedic Field Internship | 4 |

* Must be taken before or concurrently with EMS 120.

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|------|------|--|
| ENG | 111 | English Composition I |
| MATH | 112* | Beginning and Intermediate Algebra (Part II) |
| EMS | 120 | Paramedic I |
| BIO | 133* | Human Biology with Lab |

SEMESTER II (WINTER)

| | | |
|-----|-----|------------------------|
| ENG | 112 | English Composition II |
| EMS | 110 | EMT Basic |
| EMS | 130 | Paramedic II |

SEMESTER III (FALL)

| | | |
|-----|-----|-----------------------------|
| EMS | 220 | Paramedic III |
| COM | 170 | Interpersonal Communication |
| CEM | 101 | Fundamentals of Chemistry |

SEMESTER IV (WINTER)

| | | |
|-----|-----|----------------------------|
| EMS | 230 | Paramedic IV |
| EMS | 270 | Paramedic Field Internship |

Emergency Medical Services/Paramedic

Certificate • Program Code: 153
 Credit Hours: 52 • Contact Hours: 70
 Associate Dean: René Bieganowski

The mission of the EMS/Paramedic Program at North Central Michigan College is to prepare students in the most effective way to become intelligent, competent and compassionate providers of emergency care.

The EMS/Paramedic Certificate (Program Code 153) prepares students to function at advanced levels for pre-hospital emergency support services. Successful graduates are eligible to sit for the National Registry Exam which opens employment opportunities in many other states in the pre-hospital field of EMS, public safety and fire rescue. Graduates may also 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.

Admission to the College (and, by separate application, to the Program itself) is required, assessment testing is required and financial aid may be available. The 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.

The Associate of Applied Science degree is frequently considered the minimum qualification necessary to be employed in management positions in EMS; in terms of preparation for licensure as an EMT-Paramedic, the Associate of Applied Science degree (Program Code 253) and the EMS/Paramedic Certificate (Program Code 153) are identical.

Successful completion of EMS 120 and EMS 130 enable the student to sit for the Advanced EMT National Registry Exam (leading to licensure as an EMT-Specialist in Michigan). Students wishing to gain experience as EMT-Specialists may elect to leave the program and work 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 and EMS 130.

Students who already possess National Registry status as EMT-Specialists or possess a Michigan EMT-Specialist license must begin the paramedic program with EMS 120 unless they have successfully completed EMS 120 and EMS 130 at North Central within one year of the time of registration into EMS 220.

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

PREREQUISITES

Current Michigan EMT Basic License. Placement into ENG 111 and MATH 110.

GENERAL EDUCATION REQUIREMENTS

| | | |
|-----|-----|-----------|
| EMS | 110 | EMT Basic |
|-----|-----|-----------|

9 CREDIT HOURS

9

PROGRAM REQUIREMENTS

| | | |
|-----|------|----------------------------|
| EMS | 120 | Paramedic I |
| BIO | 133* | Human Biology with Lab |
| EMS | 130 | Paramedic II |
| EMS | 220 | Paramedic III |
| EMS | 230 | Paramedic IV |
| EMS | 270 | Paramedic Field Internship |

43 CREDIT HOURS

6

4

9

10

10

4

* Must be taken before or concurrently with EMS 120

Continued...

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

EMS 110 EMT Basic
BIO 133* Human Biology with Lab
EMS 120 Paramedic I

SEMESTER II (WINTER)

EMS 130 Paramedic II

SEMESTER III (FALL)

EMS 220 Paramedic III

SEMESTER IV (WINTER)

EMS 230 Paramedic IV
EMS 270 Paramedic Field Internship

Basic Emergency Medical Services

Certificate of Development • Program Code: 152

Credit Hours: 16 • Contact Hours: 19

Associate Dean: René Bieganowski

This program is designed as an introduction to Emergency Medical Services using either EMS 105 (Medical First Responder) or EMS 110 (EMT Basic) as the point of entry. Students with no prior healthcare or EMS background should consider taking EMS 105 and then EMS 110; students with some healthcare experience should consider starting the certificate of development with EMS 110 and then completing both ENG 111 and MATH 100 (or any higher MATH course). This EMT basic course of study (or the equivalent) is needed to go on to the Associate's degree (Program Code 253) or Certificate program (Program Code 153).

PROGRAM REQUIREMENTS

EMS 110 EMT Basic

CREDIT HOURS: 16-19

9

ADDITIONAL REQUIREMENTS

EMS 105 Medical First Responder
 ENG 111 English Composition I
 MATH 100 Mathematical Reasoning **or higher**

CHOOSE TWO COURSES

5

3

4

Emergency Medical Technician

Non-Degree • Program Code: 053

Credit Hours: 9 • Contact Hours: 12

Associate Dean: René Bieganowski

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. This is a non-degree program.

EMS 110 EMT Basic

9 Credit Hours

Medical Assistant

Certificate • Program Code: 180

Credit Hours: 34-36 • Contact Hours: 45-47

Associate Dean: René Bieganowski

Medical Assistant training provides diverse employment opportunities. Students in this program 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 34 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) and complete one hour of exam review each week (two 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. 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 final acceptance, students must be enrolled at North Central, have completed required courses (AH 130 or BIO 133, OAS 116) and have completed an Allied Health Program application.

Applications must be submitted to the Associate Dean of Nursing, Allied Health and Science by March 1 for fall enrollment and October 1 for winter enrollment.

Criteria for admission include a completed Allied Health Program application, completion of courses required before admission (AH 130 or BIO 133, OAS 116), with a minimum of a C+, successful completion of other courses in the MA program shared with other programs (such as B 104, MATH 100 or 112, OAS 141, 220, 221) and relevant work experience. Acceptance is not guaranteed. Students may not enroll in AH 107, AH 108 and AH 285 until they have been 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:

Students are strongly encouraged to complete B 104 or MATH 100 or Math 112 (or higher) prior to applying to the program, since B 104 or MATH 100 or MATH 112 (or higher) is a prerequisite for AH 180.

All Allied Health core classes in the Medical Assistant program (AH 130 or BIO 133, OAS 116, AH 107, AH 108, AH 180 and AH 285) must be completed with a minimum of a C+.

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.

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.

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

Continued...

| PROGRAM REQUIREMENTS | | | 33-35 CREDIT HOURS |
|-----------------------------|-------|---|---------------------------|
| AH | 130* | Body Systems and Diseases, OR | |
| BIO | 133* | Human Biology with Lab | 3-4 |
| OAS | 116* | Medical Terminology | 3 |
| AH | 107 | Medical Office Procedures I | 3 |
| AH | 108 | Medical Office Procedures II | 3 |
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning OR | |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) or higher | 3-4 |
| AH | 180 | Pharmacology for Allied Health | 3 |
| ENG | 111 | English Composition I | 3 |
| OAS | 101 | Customer Service | 1 |
| OAS | 141 | Filing and Records Management | 2 |
| OAS | 190 | Employability Skills | 1 |
| OAS | 220 | Beginning Medical Billing | 2 |
| OAS | 221 | Beginning Medical Coding | 2 |
| AH | 285** | Work-Based Learning—Medical Assistant I | 4 |

* Must be completed before AH 107; students may apply to the MA program while they are taking AH 130 or BIO 133 and OAS 116, but must maintain or exceed the GPA used for calculating admission to remain eligible for admission to the program.

** Must complete AH 107, AH 108, AH 180, OAS 190 and OAS 220 and OAS 221 prior to enrolling in this class.

| ADDITIONAL REQUIREMENTS | | | CHOOSE ONE COURSE |
|--------------------------------|-----|---|--------------------------|
| CAP | 101 | Internet Searching and Researching | 1 |
| CAP | 103 | Macintosh Computers for the Beginner | 1 |
| OAS | 103 | 10-Key Calculator and Keyboard Options | 1 |
| SOC | 115 | Anishinaabek Culture (required for WOCTEP students) | 1 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | | |
|------|-----|---|--------|
| AH | 130 | Body Systems and Diseases OR | |
| BIO | 133 | Human Biology with Lab | 3 or 4 |
| OAS | 116 | Medical Terminology | 3 |
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning OR | |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) or higher | 3 or 4 |
| OAS | 101 | Customer Service | 1 |

SEMESTER II (WINTER)

| | | | |
|-----|-----|--------------------------------|---|
| AH | 107 | Medical Office Procedures I | 3 |
| AH | 180 | Pharmacology for Allied Health | 3 |
| ENG | 111 | English Composition I | 3 |
| OAS | 141 | Filing and Records Management | 2 |
| OAS | 190 | Employability Skills | 1 |

SEMESTER III (FALL)

| | | | |
|-----|-----|--------------------------------------|---|
| AH | 108 | Medical Office Procedures II | 3 |
| OAS | 220 | Beginning Medical Billing | 2 |
| OAS | 221 | Beginning Medical Coding | 2 |
| CAP | 103 | Macintosh Computers for the Beginner | 1 |

SEMESTER IV (WINTER)

| | | |
|--------|---|---|
| AH 285 | Work-Based Learning—Medical Assistant I | 4 |
|--------|---|---|

Medical Billing and Coding

Certificate • Program Code: 190

Credit Hours: 34-35 • Contact Hours: 34-35

Associate Dean: Pam Miller

This certificate is designed for students interested in working in medical billing and coding departments of larger physician practices. With increasing emphasis on accountability in healthcare and the increasing complexity of federal coding requirements, demand for individuals trained in this field is expected to remain high.

This certificate prepares students at an appropriate level for understanding medical billing and coding in private physician and dental practices, and is useful as an additional certificate for individuals in the Medical Office Assistant or other Allied Health programs. Students who intend to seek work in medical billing and coding departments in hospitals should consider the AAS degree in Medical Billing and Coding.

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

GENERAL EDUCATION REQUIREMENTS

6-7 CREDIT HOURS

| | | | |
|-----|-----|-------------------------------------|-----|
| AH | 130 | Body Systems and Diseases OR | |
| BIO | 133 | Human Biology with Lab | 3-4 |
| OAS | 116 | Medical Terminology | 3 |

PROGRAM REQUIREMENTS

22 CREDIT HOURS

| | | | |
|------|-----|---|---|
| ENG | 111 | English composition I | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| MATH | 100 | Mathematical Reasoning or higher | 4 |
| OAS | 101 | Customer Service | 1 |
| OAS | 190 | Employability Skills | 1 |
| OAS | 220 | Beginning Medical Coding | 2 |
| OAS | 221 | Beginning Medical Billing | 2 |
| OAS | 231 | Advanced Medical Coding CPT | 2 |
| OAS | 232 | Advanced Medical Coding ICD-10-CM | 3 |
| OAS | 285 | Work-Based Learning I | 1 |

ADDITIONAL REQUIREMENTS

CHOOSE 6 CREDIT HOURS

| | | | |
|-----|-----|---------------------------------|---|
| AH | 180 | Pharmacology for Allied Health | 3 |
| BIO | 235 | General Anatomy & Physiology I | 4 |
| BIO | 236 | General Anatomy & Physiology II | 4 |
| CAP | 125 | Microsoft Excel | 3 |
| CAP | 130 | Microsoft Access | 3 |
| OAS | 122 | Document Processing | 3 |
| OAS | 252 | Microsoft Office for Windows | 3 |

Continued...

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I**

AH 130 Body Systems and Diseases **OR**
BIO 133 Human Biology with Lab
OAS 116 Medical Terminology

SEMESTER II

ENG 111 English Composition I
OAS 101 Customer Service
OAS 190 Employability Skills
OAS 220 Beginning Medical Coding
OAS 221 Beginning Medical Billing
Elective

SEMESTER III

COM 111 Public Speaking **OR**
COM 170 Interpersonal Communication
OAS 231 Advanced Medical Coding CPT
OAS 232 Advanced Medical Coding ICD-10-CM
OAS 285 Work-Based Learning I
Elective

Medical Billing and Coding

Certificate of Development • Program Code: 179
 Credit Hours: 19-20 • Contact Hours: 19-20
 Associate Dean: Pam Miller

This certificate of Development is designed for entry-level students interested in the growing field of medical billing and coding. With increasing emphasis on accountability in healthcare, demand for individuals trained in this field is expected to remain high.

This certificate prepares students at a basic level for understanding medical billing and coding in private physician and dental practices, and is useful as an additional certificate for individuals in the Medical Office Assistant or other Allied Health programs.

| PROGRAM REQUIREMENTS | | | 19-20 CREDIT HOURS |
|-----------------------------|-----|-------------------------------------|---------------------------|
| AH | 130 | Body Systems and Diseases OR | 3 |
| BIO | 133 | Human Biology with Lab | 4 |
| MATH | 100 | Mathematical Reasoning | 4 |
| OAS | 116 | Medical Terminology | 3 |
| OAS | 220 | Beginning Medical Coding | 2 |
| OAS | 221 | Beginning Medical Billing | 2 |
| OAS | 231 | Advanced Medical Coding CPT | 2 |
| OAS | 232 | Advanced Medical Coding ICD-10-CM | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I

| | | |
|-----|-----|-------------------------------------|
| AH | 130 | Body Systems and Diseases OR |
| BIO | 133 | Human Biology with Lab |
| OAS | 116 | Medical Terminology |

SEMESTER II

| | | |
|------|-----|---------------------------|
| MATH | 100 | Mathematical Reasoning |
| OAS | 220 | Beginning Medical Coding |
| OAS | 221 | Beginning Medical Billing |

SEMESTER III

| | | |
|-----|-----|-----------------------------------|
| OAS | 231 | Advanced Medical Coding CPT |
| OAS | 232 | Advanced Medical Coding ICD-10-CM |

Medical Transcriptionist

Certificate • Program Code: 163

Credit Hours: 30 • Contact Hours: 30-31

Associate Dean: Pam Miller

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

PROGRAM REQUIREMENTS

| PROGRAM REQUIREMENTS | | | 30-31 CREDIT HOURS |
|----------------------|--------|-------------------------------|--------------------|
| 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 Body Systems and Diseases

**may be satisfied with OAS 220 & OAS 221 Beginning Medical Coding & Beginning Medical Billing

***if OAS 285 is not on the schedule, see faculty advisor

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|-------------------------------|
| ENG | 111 | English Composition I |
| OAS | 116 | Medical Terminology |
| OAS | 122 | Document Processing I |
| OAS | 224 | Transcription and Editing |
| OAS | 141 | Filing and Records Management |

SEMESTER II (WINTER)

| | | |
|-----|-----------|--|
| BIO | 133 | Human Biology with Lab OR |
| AH | 130* | Body Systems and Diseases |
| OAS | 117 | Medical Transcription |
| OAS | 190 | Employability Skills |
| OAS | 216 | Medical Insurance and Billing OR |
| OAS | 220/221** | Beginning Medical Coding/Beginning Medical Billing |
| OAS | 223 | Document Processing II |

Nursing

Associate of Applied Science • Program Code: 256

Credit Hours: 72 • Contact Hours: 106

Associate Dean: René Bieganowski

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.

Admission to the Nursing Program is very competitive and 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 January 31 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 frequently for updates and changes.

NURSING ADMISSION REQUIREMENTS

Competitive Admission

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.

Steps for Nursing Program Applicants

- **Apply and complete the North Central admission process.**
- **Apply for admission to the Nursing Program.** The application is available on line at www.ncmich.edu/nursing.html. The deadline is January 31 of the year prior to anticipated fall entry. 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 January deadline. Admission decisions are made and communicated to applicants in May by the Associate Dean of Nursing, Allied Health and Science.

Program Advising. All new applicants who list the Associate of Applied Science in Nursing (Program 256) 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 department secretary at (231) 348-6696 to schedule an appointment. Plan to be in regular contact with your faculty advisor as you plan your schedule.

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. 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.

Continued...

- 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.atitest.com. Announcement for dates and times for administration of the TEAS will be announced on the College web page in March and a letter will be sent from the Nursing department.
- 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 if completed more than 2 years prior to admission to the program.
- 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.

SCIENCE REQUIREMENTS

These courses must be completed before admission to the program. It is strongly recommended that these be completed with a “C” 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 & Physiology I
- ___ BIO 236 General Anatomy & 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 Public Speaking or
- ___ COM 170 Interpersonal Communication
- ___ PSY 161 Introduction to Psychology
- ___ PSY 261 Developmental Psychology

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, MMR, Varicella and Tetanus;
- 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;
- Provide annual proof of an influenza vaccine.

NOTE: 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.

Continued...

| GENERAL EDUCATION REQUIREMENTS | | | 23 CREDIT HOURS |
|---------------------------------------|-----|---------------------------------|------------------------|
| BIO | 235 | General Anatomy & Physiology I | 4 |
| BIO | 236 | General Anatomy & Physiology II | 4 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| PSY | 161 | General Psychology | 3 |
| PSY | 261 | Developmental Psychology | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|-----|-----|--------------------------------|
| BIO | 235 | General Anatomy & Physiology I |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |
| ENG | 111 | English Composition I |
| PSY | 161 | General Psychology |

SEMESTER II (WINTER)

| | | |
|-----|-----|---------------------------------|
| BIO | 236 | General Anatomy & Physiology II |
| ENG | 112 | English Composition II |
| PSY | 261 | Developmental Psychology |

| NURSING PROGRAM REQUIREMENTS | | | 49 CREDIT HOURS |
|-------------------------------------|-----|--|------------------------|
| AH | 116 | Math for Health Professionals (2-0-0) | 2 |
| AH | 280 | Pharmacology (3-0-0) | 3 |
| NUR | 210 | Family Health Concepts (3-0-6) | 5 |
| NUR | 230 | Acute Health Concepts (3-0-6) | 5 |
| NUR | 250 | Management of Care Concepts (1-0-0) | 1 |
| NUR | 270 | Complex Health Concepts (6-0-15) | 11 |
| NUR | 110 | Introduction to Health Care Concepts (7-5-4) | 10 |
| NUR | 130 | Health System Concepts (2-0-0) | 2 |
| NUR | 150 | Health Illness Concepts (3-0-6) | 5 |
| NUR | 170 | Holistic Health Concepts (3-0-6) | 5 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**1ST YEAR (FALL)**

| | | |
|-----|-----|--------------------------------------|
| NUR | 110 | Introduction to Health Care Concepts |
| NUR | 130 | Health System Concepts |
| AH | 116 | Math for Health Professions |

1ST YEAR (WINTER)

| | | |
|-----|-----|--------------------------|
| NUR | 150 | Health Illness Concepts |
| NUR | 170 | Holistic Health Concepts |
| AH | 280 | Pharmacology |

2ND YEAR (FALL)

| | | |
|-----|-----|-----------------------------|
| NUR | 210 | Family Health Concepts |
| NUR | 230 | Acute Health Concepts |
| NUR | 250 | Management of Care Concepts |

2ND YEAR (WINTER)

| | | |
|-----|-----|-------------------------|
| NUR | 270 | Complex Health Concepts |
|-----|-----|-------------------------|

LPN to RN Transition Program

Associate of Applied Science • Program Code: 295
 Credit Hours: 63 • Contact Hours: 91
 Associate Dean: René Bieganowski

This program is designed for Licensed Practical Nurses seeking an Associate of Applied Science in Nursing degree in order to take the NCLEX-RN. Waiver of any course requirements based on previous education does not relieve students in this advanced placement program from meeting the College's degree requirements of a minimum of 63 credit hours. If coursework is waived, students will be expected to complete courses in an appropriate area of study to meeting the minimum 63 credit hour degree requirement. LPN students are encouraged to non-nursing courses prior to acceptance in the advanced placement program.

This is a very competitive program. Meeting program requirements and applying to the nurse program do not guarantee admission. Enrollment in any nursing course requires acceptance into the nursing program. Applications must be submitted by January 31 of the year prior to anticipated fall semester entry. Non-nursing courses must be completed the winter session before entry. Completion of all science courses with a "C" or better is required no more than five years prior to admission to the program.

PREREQUISITES

| | | | |
|-----|-----|---------------------------------|--|
| BIO | 235 | General Anatomy & Physiology I | |
| BIO | 236 | General Anatomy & Physiology II | |

8 CREDIT HOURS

4
4

GENERAL EDUCATION REQUIREMENTS

| | | | |
|-----|-----|-----------------------------|--|
| ENG | 111 | English Composition I | |
| ENG | 112 | English Composition II | |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | |
| PSY | 161 | Psychology | |
| PSY | 261 | Developmental Psychology | |

15 CREDIT HOURS

3
3

3
3
3

PROGRAM REQUIREMENTS

| | | | |
|-----|------|-------------------------------|--|
| AH | 116 | Math for Health Professionals | |
| AH | 280 | Pharmacology | |
| NUR | 120 | Nursing Process | |
| NUR | 130 | Health Concepts | |
| NUR | 150 | Health Illness Concepts | |
| NUR | 170 | Holistic Health Concepts | |
| NUR | 210* | Family Health Concepts | |
| NUR | 230 | Acute Health Concepts | |
| NUR | 250 | Management of Care | |
| NUR | 270 | Complex Health Concepts | |

40 CREDIT HOURS

2
3
1
2
5
5
5
5
1
11

*LPNs may be eligible to waive NUR 210 based on testing and receiving a Proficiency Level 2 on the ATI exam.

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|-----|-----|--------------------------------|
| BIO | 235 | General Anatomy & Physiology I |
| ENG | 111 | English Composition I |
| PSY | 161 | Psychology |

Continued...

SEMESTER II (WINTER)

| | | |
|-----|-----|---------------------------------|
| BIO | 236 | General Anatomy & Physiology II |
| ENG | 112 | English Composition II |
| PSY | 261 | Developmental Psychology |
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |

SEMESTER III (FALL)

| | | |
|-----|-----|-------------------------------|
| NUR | 120 | Nursing Process |
| NUR | 130 | Health Concepts |
| AH | 116 | Math for Health Professionals |

SEMESTER IV (WINTER)

| | | |
|-----|-----|--------------------------|
| NUR | 150 | Health Illness Concepts |
| NUR | 170 | Holistic Health Concepts |
| AH | 280 | Pharmacology |

SEMESTER V (FALL)

| | | |
|-----|-----|------------------------|
| NUR | 210 | Family Health Concepts |
| NUR | 230 | Acute Health Concepts |
| NUR | 250 | Management of Care |

SEMESTER VI (WINTER)

| | | |
|-----|-----|-------------------------|
| NUR | 270 | Complex Health Concepts |
|-----|-----|-------------------------|

Phlebotomy Technician

Certificate of Development • Program Code: 178

Credit Hours: 16-17 • Contact Hours: 24-26

Associate Dean: René Bieganowski

A phlebotomy technician practices blood-collection techniques that include venipuncture 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 collection, 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 (Waganakasing Odawa Career and Technical Education Program), in recognition of WOCTEP's role in establishing the program itself. Students must successfully complete general education requirements by the start of their intended cohort 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 North Central Advisors early in the application process for advising concerning completion of general education requirements, 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 a 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 Allied Health Program Application and the Pre-Admission Medical History Form are available online.

Phlebotomy Program Requirements

Proof of high school diploma or GED;

- Apply and complete the North Central admission process;
- Complete and submit an Allied Health Program Application by the deadline date;
- Successfully complete general education requirements listed below;
- Submit official college transcripts (if needed);
- Provide written documentation of immunizations specified on Allied Health Program Application;
- Provide documentation of current CPR certification (AHA: Basic Life Support for Healthcare Providers, or ARC: CPR for the 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 may be held at the Little Traverse Bay Bands Health Park classroom;
- PHLB 102 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.

Continued...

| GENERAL EDUCATION REQUIREMENTS | | | 9-10 CREDIT HOURS |
|---------------------------------------|-----|-------------------------------------|--------------------------|
| COM | 170 | Interpersonal Communication | 3 |
| OAS | 116 | Medical Terminology | 3 |
| AH | 130 | Body Systems and Diseases OR | |
| BIO | 133 | Human Biology with Lab | 3-4 |

| PROGRAM REQUIREMENTS | | | 6 CREDIT HOURS |
|-----------------------------|------|---------------|-----------------------|
| PHLB | 101* | Phlebotomy I | 4 |
| PHLB | 102 | Phlebotomy II | 2 |

* Must be completed with a C+ (2.33 GPA) to enter PHLB 102

| ADDITIONAL REQUIREMENTS | | | CHOOSE ONE COURSE |
|--------------------------------|-----|---|--------------------------|
| OAS | 101 | Customer Service | 1 |
| OAS | 190 | Employability Skills | 1 |
| SOC | 115 | Anishinaabek Culture (required for WOCTEP students) | 1 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|------|-----|-------------------------------------|
| OAS | 116 | Medical Terminology |
| AH | 130 | Body Systems and Diseases OR |
| BIO | 133 | Human Biology with Lab |
| PHLB | 101 | Phlebotomy I |

SEMESTER II (WINTER)

| | | |
|---------------------------|-----|-----------------------------|
| COM | 170 | Interpersonal Communication |
| PHLB | 102 | Phlebotomy II |
| 1 Additional Requirements | | |

Surgical Technologist

Associate of Applied Science • Program Code: 258

Credit Hours: 75 • Contact Hours: 132

Associate Dean: René Bieganowski

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:

- Apply and complete the North Central admission process;
- Complete and submit an Allied Health Program Application;
- Submit official college transcripts (if needed);
- 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 general education requirements:
 - 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 general education requirements, but all of these general education requirements must be completed before beginning the program.

Continued...

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, including influenza, tuberculin test, Hepatitis B, MMR, Varicella and Tetanus);
- 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 Associate Dean of Nursing, Allied Health and Science 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).

PROGRAM REQUIREMENTS

32 CREDIT HOURS

SURGICAL TECHNOLOGIST GENERAL EDUCATION REQUIREMENTS

23 CREDIT HOURS

All general education courses must be completed with a C+ (2.33 GPA) or higher

| | | | |
|------|-----|---|---|
| BIO | 226 | Microbiology | 4 |
| BIO | 235 | General Anatomy & Physiology I | 4 |
| BIO | 236 | General Anatomy & Physiology II | 4 |
| EMS | 101 | CPR and First Aid (or equivalent) | 1 |
| ENG | 111 | English Composition I | 3 |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) | 4 |
| OAS | 116 | Medical Terminology | 3 |

ADDITIONAL REQUIREMENTS

9 CREDIT HOURS

Select courses from the following list to satisfy the remaining 9 credit hours of program requirements:

| | | | |
|-----|-----|--------------------------------------|---|
| ENG | 112 | English Composition II | 3 |
| COM | 170 | Interpersonal Communication | 3 |
| PSY | 161 | Introduction to Psychology OR | |
| SOC | 171 | Introduction to Sociology | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|------|-----|---|
| BIO | 226 | Microbiology |
| BIO | 235 | General Anatomy & Physiology I |
| EMS | 101 | CPR and First Aid (or equivalent) |
| ENG | 111 | English Composition I |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) |

SEMESTER II (WINTER)

| | | |
|-----|-----|--------------------------------------|
| BIO | 236 | General Anatomy & Physiology II |
| ENG | 112 | English Composition II |
| COM | 170 | Interpersonal Communication |
| OAS | 116 | Medical Terminology |
| PSY | 161 | Introduction to Psychology OR |
| SOC | 171 | Introduction to Sociology |

Continued...

SURGICAL TECHNOLOGIST PROGRAM REQUIREMENTS**43 CREDIT HOURS**

| | | | |
|-----|-----|---------------------------------------|----|
| SRG | 120 | Surgical Technologist I | 10 |
| SRG | 130 | Surgical Technologist II | 10 |
| SRG | 220 | Surgical Technologist III | 10 |
| SRG | 230 | Surgical Technologist IV (Externship) | 10 |
| SRG | 240 | Operating Room Seminar | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**ODD YEARS (FALL)**

SRG 120 Surgical Technologist I

ODD YEARS (WINTER)

SRG 230 Surgical Technologist IV (Externship)

SRG 240 Operating Room Seminar

EVEN YEARS (FALL)

SRG 220 Surgical Technologist III

EVEN YEARS (WINTER)

SRG 130 Surgical

Surgical Technologist

Certificate • Program Code: 183

Credit Hours: 66 • Contact Hours: 123

Associate Dean: René Bieganowski

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, 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 general education requirements:
 - 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 general education requirements, but all of these general education requirements 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),

Continued...

- 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 Associate Dean of Health, Business and Technology 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).

SURGICAL TECHNOLOGIST GENERAL EDUCATION REQUIREMENTS 23 CREDIT HOURS

All general education courses must be completed with a C+ (2.33 GPA) or higher

| | | | |
|------|-----|--|---|
| BIO | 226 | Microbiology | 4 |
| BIO | 235 | General Anatomy & Physiology I | 4 |
| BIO | 236 | General Anatomy & Physiology II | 4 |
| EMS | 101 | CPR and First Aid (or equivalent) | 1 |
| ENG | 111 | English Composition I | 3 |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) | 4 |
| OAS | 116 | Medical Terminology | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|-----------------------------------|
| BIO | 226 | Microbiology |
| BIO | 235 | General Anatomy & Physiology I |
| EMS | 101 | CPR and First Aid (or equivalent) |
| ENG | 111 | English Composition I |

SEMESTER II (WINTER)

| | | |
|------|-----|--|
| BIO | 236 | General Anatomy & Physiology II |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) |
| OAS | 116 | Medical Terminology |

SURGICAL TECHNOLOGIST PROGRAM REQUIREMENTS

43 CREDIT HOURS

| | | | |
|-----|-----|---------------------------------------|----|
| SRG | 120 | Surgical Technologist I | 10 |
| SRG | 130 | Surgical Technologist II | 10 |
| SRG | 220 | Surgical Technologist III | 10 |
| SRG | 230 | Surgical Technologist IV (Externship) | 10 |
| SRG | 240 | Operating Room Seminar | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS

ODD YEARS (FALL)

| | | |
|-----|-----|-------------------------|
| SRG | 120 | Surgical Technologist I |
|-----|-----|-------------------------|

EVEN YEARS (FALL)

| | | |
|-----|-----|---------------------------|
| SRG | 220 | Surgical Technologist III |
|-----|-----|---------------------------|

EVEN YEARS (WINTER)

| | | |
|-----|-----|--------------------------|
| SRG | 130 | Surgical Technologist II |
|-----|-----|--------------------------|

ODD YEARS (WINTER)

| | | |
|-----|-----|---------------------------------------|
| SRG | 230 | Surgical Technologist IV (Externship) |
| SRG | 240 | Operating Room Seminar |

Information Technology

CCNA Certification Preparation

Certificate of Development • Program Code: 114

Credit Hours: 18 • Contact Hours: 18

Associate Dean: Pam Miller • Faculty Contact: Fred Harrington

North Central entered into a Cisco Academy agreement to enable our students' access to the CCNA Exploration training track. Our program utilized a combination of Cisco online content with instructor aided hands-on learning activities. This combination prepares students for entry-level positions with hands-on experience and the Cisco Certified Network Associate certification.

PROGRAM REQUIREMENTS

18 CREDIT HOURS

| | | | |
|----|-----|---------------------------------|---|
| IT | 160 | Advanced Hardware and Routing | 3 |
| IT | 170 | Cisco Network Fundamentals | 3 |
| IT | 180 | Cisco Routing Protocols | 3 |
| IT | 190 | Cisco LAN Switching & Wireless | 3 |
| IT | 201 | Cisco Wide Area Networks | 3 |
| IT | 272 | Certification Preparation Cisco | 3 |

SUGGESTED SEQUENCE:

SEMESTER I (FALL)

| | | |
|----|-----|--------------------------------|
| IT | 170 | Cisco Network Fundamentals |
| IT | 180 | Cisco Routing Protocols |
| IT | 190 | Cisco LAN Switching & Wireless |

SEMESTER II (WINTER)

| | | |
|----|-----|---------------------------------|
| IT | 201 | Cisco Wide Area Networks |
| IT | 160 | Advanced Hardware and Routing |
| IT | 272 | Certification Preparation Cisco |

Computer Numerically Controlled (CNC) Machinist Technology / CNC Machinist

Certificate of Development • Program Code: 106

Credit Hours: 20 • Contact Hours: 20

Associate Dean: Pam Miller

The North Central Certificate of Development in Computer-Numeric-Controlled Programming and Operations prepares motivated students for work in modern factories, manufacturing plants, and machine shops where computer numerically controlled (CNC) machines are essential pieces of equipment. In the past, workers manually controlled the heavy equipment used to cut, shape, and form products from raw wood and metals. A CNC programmer / operator can now input highly-detailed instructions into a computer system that guides robotic arms and tools to perform precision machining jobs. Skilled CNC programmers or operators are able to improve the efficiency of production and the quality of finished products.

| REQUIRED COURSES | | | 20 CREDIT HOURS |
|-------------------------|-----|---|------------------------|
| CAM | 100 | Introduction to CAM programming | 1 |
| CAM | 110 | Operations / Work Holding | 1 |
| CAM | 120 | *OE CAM Spindle Speeds, Feed Rates, Cutter Compensation | 1 |
| CAM | 130 | *OE Planning for Various Materials and Processes | 1 |
| CAM | 140 | *OE Creating 3D Geometry and Assigning Tool Paths | 1 |
| CAM | 150 | *OE Multiple Set-up Jobs and Datum Locations | 1 |
| CNC | 102 | Introduction to CNC Lathe Operations | 1 |
| CNC | 103 | Introduction to CNC Milling Operations | 1 |
| CNC | 112 | CNC Lathe Operations and Holding Setup | 1 |
| CNC | 113 | CNC Mill Operations and Holding Setup | 1 |
| CNC | 122 | CNC Lathe Spindle Speed and Feed Rates | 1 |
| CNC | 123 | CNC Mill Spindle Speed and Feed Rates | 1 |
| CNC | 132 | CNC Lathe On-Board G-Code Edit and Operation | 1 |
| CNC | 133 | CNC Mill On-Board G-Code Edit and Operation | 1 |
| CNC | 180 | CNC Programming, Lathe or Mill Independent Project | 1 |
| COM | 170 | Interpersonal Communication | 3 |
| OAS | 101 | Customer Service | 1 |
| OAS | 190 | Employability Skills | 1 |

* Open Entry / Self-Paced: North Central offers some Computer-Numeric-Controlled Programming and Operations 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 Mobile Digital Fabrication Lab is designed for CNC activities involving area high schools, employers, and North Central students.

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS: SEMESTER I (FALL)

| | | |
|-----|------|--|
| CAM | 100 | Introduction to CAM programming |
| CAM | 110 | Operations / Work Holding |
| CAM | 120* | OE CAM Spindle Speeds, Feed Rates, Cutter Compensation |
| CNC | 102 | Introduction to CNC Lathe Operations |
| CNC | 103 | Introduction to CNC Milling Operations |
| CNC | 112 | CNC Lathe Operations and Holding Setup |
| CNC | 113 | CNC Mill Operations and Holding Setup |
| COM | 170 | Interpersonal Communication |
| OAS | 101 | Customer Service |

Continued...

SEMESTER II (WINTER)

| | | |
|-----|------|--|
| CAM | 130* | OE Planning for Various Materials and Processes |
| CAM | 140* | OE Creating 3D Geometry and Assigning Tool Paths |
| CAM | 150* | OE Multiple Set-up Jobs and Datum Locations |
| CNC | 122 | CNC Lathe Spindle Speed and Feed Rates |
| CNC | 123 | CNC Mill Spindle Speed and Feed Rates |
| CNC | 132 | CNC Lathe On-Board G-Code Edit and Operation |
| CNC | 133 | CNC Mill On-Board G-Code Edit and Operation |
| CNC | 180 | CNC Programming, Lathe or Mill Independent Project |
| OAS | 190 | Employability Skills |

Computer-Aided Design

Certificate • Program Code: 116

Credit Hours: 30-31 • Contact Hours: 30-32

Associate Dean: Pam Miller

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.

PROGRAM REQUIREMENTS

27-28 CREDIT HOURS

| | | | | |
|------|-----|---|-----------|---|
| CAP | 125 | Microsoft Excel | OR | |
| CAP | 130 | Microsoft Access | | 3 |
| CIS | 100 | Introduction to Computers | | 3 |
| ENG | 111 | English Composition I | | 3 |
| ENGR | 107 | Engineering Graphics | | 3 |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) | | 4 |
| TDT | 130 | Introduction to CAD | | 3 |
| TDT | 132 | Advanced CAD | | 3 |
| TDT | 140 | Architectural CAD | OR | |
| TDT | 150 | Mechanical CAD | | 3 |

ADDITIONAL REQUIREMENTS

CHOOSE ONE COURSE

Select a course from the following list to satisfy the remaining 2-3 credit hours of program requirements:

| | | | | |
|-----|-----|-----------------------------------|--|---|
| CAP | 135 | Web Page Design | | 3 |
| CIS | 104 | Introduction to Programming Logic | | 3 |
| CIS | 105 | Visual Basic Programming I | | 3 |
| CIS | 140 | Introduction to Linux/UNIX | | 3 |
| IT | 102 | Networking Essentials | | 2 |

PROGRAM ELECTIVES

CHOOSE ONE COURSE

| | | | | |
|-----|-----|--|--|---|
| ARC | 110 | Elements of Architecture | | 3 |
| ART | 105 | Art History I (see ARTH 110) | | 3 |
| ART | 106 | Art History II (see ARTH 111) | | 3 |
| B | 161 | Introduction to Business | | 3 |
| B | 207 | Business Communication | | 3 |
| CIS | 120 | PC Operating Systems | | 3 |
| COM | 111 | Public Speaking | | 3 |
| COM | 170 | Interpersonal Communications | | 3 |
| TDT | 140 | Architectural CAD | | 3 |
| TDT | 150 | Mechanical CAD | | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

*Sequencing of courses will depend on availability. Monitor schedule and meet with your program coordinator.

SEMESTER I (FALL)

| | | |
|--------------------|-----|---------------------------|
| CIS | 100 | Introduction to Computers |
| ENG | 111 | English Composition I |
| ENGR | 107 | Engineering Graphics |
| TDT | 130 | Introduction to CAD |
| 1 Program Elective | | |

Continued...

SEMESTER II (WINTER)

CAP 125 Microsoft Excel **OR**
CAP 130 Microsoft Access
MATH 110 Beginning and Intermediate Algebra (Part I)
TDT 132 Advanced CAD or other TDT course*
1 Additional Requirement

SEMESTER III (FALL)

TDT 132 or other TDT course*

Computer Information Systems

Associate of Applied Science • Program Code: 243
 Credit Hours: 60 • Contact Hours: 68-70
 Associate Dean: Pam Miller

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.

GENERAL EDUCATION REQUIREMENTS 16 CREDIT HOURS

| | | | |
|------|-----|---|---|
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) | 4 |
| PLS | 141 | Introduction to American Government | 3 |

PROGRAM REQUIREMENTS 40 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 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 | 112 | Windows Workstations | 2 |
| IT | 161 | Introductory Digital Logic | 2 |

ADDITIONAL REQUIREMENTS 4 CREDIT HOURS

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 | 122 | Windows Server | 2 |
| IT | 131 | Windows Web Server | 1.5 |

Continued...

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|-----|-----|-------------------------------------|
| ENG | 111 | English Composition I |
| CIS | 100 | Introduction to Computers |
| CIS | 104 | Introduction to Programming Logic |
| COM | 170 | Interpersonal Communication |
| PLS | 141 | Introduction to American Government |

SEMESTER II (WINTER)

| | | |
|------|-----|---|
| CIS | 105 | Visual BASIC Programming I |
| CIS | 115 | C++ Programming I |
| CIS | 215 | Database Design and Management |
| ENG | 112 | English Composition II |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) |

SEMESTER III (FALL)

| | | |
|-----|-----|---|
| CIS | 150 | Introduction to Database Administration |
| CIS | 140 | Introduction to Linux/UNIX |
| CIS | 205 | C++ Programming II |
| CIS | 220 | Visual BASIC Programming II |

SEMESTER IV (WINTER)

| | | |
|-----|-----|-----------------------|
| CIS | 120 | PC Operating System I |
| CIS | 145 | ePortal Development |
| IT | 101 | Network + |
| IT | 122 | Windows Server |

Additional Requirements

Computer Information Systems

Certificate • Program Code: 162
 Credit Hours: 33 • Contact Hours: 38
 Associate Dean: Pam Miller

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 | Beginning and Intermediate Algebra (Part I) | 4 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|-----------------------------------|
| CIS | 100 | Introduction to Computers |
| CIS | 104 | Introduction to Programming Logic |
| CIS | 105 | Visual BASIC Programming I |
| IT | 102 | Networking Essentials |

SEMESTER II (WINTER)

| | | |
|------|-----|---|
| CIS | 115 | C++ Programming |
| CIS | 145 | ePortal Development |
| CIS | 215 | Database Design and Management |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) |
| IT | 101 | Network + |

SEMESTER III (FALL)

| | | |
|-----|-----|-----------------------------|
| CIS | 120 | PC Operating System |
| COM | 170 | Interpersonal Communication |

Computer Networking

Associate of Applied Science • Program Code: 282

Credit Hours: 60-61 • Contact Hours: 61-64

Associate Dean: Pam Miller • 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 Windows Workstations | 2 |
| IT | 122 | *OE 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 |

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

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

Continued...

ADDITIONAL PROGRAM REQUIREMENTS**10 CREDIT HOURS**

Any CIS courses (excluding CIS 100, 104, 140)
 IT 270* OE Capstone Project **OR**
 IT 280 Internship / Project

6

4

PROGRAM ELECTIVES**6 CREDIT HOURS**

Any courses numbered 100 or higher

6

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

ENG 111 English Composition I
 CIS 100 Introduction to Computers
 IT 101 Network +
 IT 102 Networking Essentials
 IT 112 Windows Workstations
 IT 122 Windows Server

SEMESTER II (WINTER)

ENG 112 English Composition II
 IT 130 Windows Network Infrastructure
 IT 150 Windows Directory Services
 CIS 140 Introduction to Linux/UNIX

SEMESTER III (FALL)

CIS 104 Intro Programming Logic
 IT 221 Designing Windows Networks
 OAS 190 Employability Skills
 1 Program Elective

SEMESTER IV (WINTER)

IT 222 Network Security Fundamentals
 IT 161 Introductory Digital Logic
 IT 270 Capstone Project **OR**
 IT 280 Internship/Project
 COM --- Any COM course
 1 Program Elective

Computer Networking Administrator

Certificate • Program Code: 182

Credit Hours: 30-31 • Contact Hours: 30-31

Associate Dean: Pam Miller • Faculty Contact: Fred Harrington

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

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

PROGRAM REQUIREMENTS

30-31 CREDIT HOURS

| | | | |
|------|-----|---|-----|
| B | 104 | Business Math OR | |
| MATH | 100 | Mathematical Reasoning or higher | 3-4 |
| CIS | 100 | Introduction to Computers | 3 |
| COM | --- | Any COM course | 3 |
| ENG | 111 | English Composition I | 3 |
| IT | 101 | *OE Network + | 3 |
| IT | 102 | *OE Networking Essentials | 2 |
| IT | 112 | *OE Windows Workstations | 2 |
| IT | 122 | *OE 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 12th week of the semester. Immediate payment will be expected upon enrollment and all OE courses for which you have registered must be completed by the end of the semester. Financial aid restrictions may apply.

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

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|-----|-----|---------------------------|
| ENG | 111 | English Composition I |
| CIS | 100 | Introduction to Computers |
| IT | 101 | Network + |
| IT | 102 | Networking Essentials |
| IT | 112 | Window Workstations |
| IT | 122 | Windows Server |

SEMESTER II (WINTER)

| | | |
|------|-----|---|
| IT | 131 | Windows Web Server |
| COM | --- | Any COM course |
| IT | 130 | Windows Network Infrastructure |
| IT | 141 | Managing Windows Networks |
| B | 104 | Business Math OR |
| MATH | 100 | Mathematical Reasoning or higher |
| OAS | 190 | Employability Skills |

Computer Support Specialist

Associate of Applied Science • Program Code: 238

Credit Hours: 60-61 • Contact Hours: 61-62

Associate Dean: Pam Miller • Faculty Contact: Fred Harrington

North Central's Computer Support Specialist Associate of Applied Science degree 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 OR | |
| MATH | 100 | Mathematical Reasoning or higher | 3-4 |
| COM | --- | 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 | Microsoft Office for Windows | 3 |

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

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

| ADDITIONAL REQUIREMENTS | 9-10 CREDIT HOURS |
|---|--------------------------|
| Select 10 credits from any CIS, IT, or OAS courses not listed above | |

Continued...

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

B 104 Business Math **OR**
MATH 100 Mathematical Reasoning **or higher**
CIS 100 Introduction to Computing
ENG 111 English Composition I
IT 101 Network +
Elective

SEMESTER II (WINTER)

ENG 112 English Composition II
IT 112 Windows Workstations
IT 199 Help Desk Internship
OAS 252 Microsoft Office for Windows
1 Additional Requirement

SEMESTER III (FALL)

CAP 135 Web Page Design
CIS 104 Intro to Program Logic
CIS 140 Introduction to UNIX
COM --- Any COM class
1 Additional Requirement

SEMESTER IV (WINTER)

CIS 120 PC Operating Systems I
IT 222 Network Security Fundamentals
IT 280 Internship
1 Social Science

Computer Support Specialist

Certificate • Program Code: 148

Credit Hours: 30-31 • Contact Hours: 31-32

Associate Dean: Pam Miller • 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.

| GENERAL EDUCATION REQUIREMENTS | | | 9-10 CREDIT HOURS |
|---------------------------------------|-----|--------------------------------------|--------------------------|
| ENG | 111 | English Composition I | 3 |
| B | 104 | Business Math OR | |
| MATH | --- | Any MATH course 100 or higher | 3-4 |
| COM | --- | Any COM course | 3 |

| PROGRAM REQUIREMENTS | | | 21 CREDIT HOURS |
|-----------------------------|-----|--------------------------------|------------------------|
| 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 | Microsoft 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 12th week of the semester. Immediate payment will be expected upon enrollment and all OE courses for which you have registered must be completed by the end of the semester. Financial aid restrictions may apply.

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

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | |
|------|-----|--------------------------------------|
| B | 104 | Business Math OR |
| MATH | --- | Any MATH course 100 or higher |
| CIS | 100 | Introduction to Computing |
| ENG | 111 | English Composition I |
| IT | 101 | Network + |
| IT | 112 | Windows Workstations |

SEMESTER II (WINTER)

| | | |
|-----|-----|-------------------------------|
| CIS | 120 | PC Operating Systems I |
| OAS | 252 | Microsoft Office for Windows |
| IT | 222 | Network Security Fundamentals |
| IT | 199 | Help Desk Internship |
| COM | --- | Any COM course |

Geographic Information Systems

Associate of Applied Science • Program Code: 236
 Credit Hours: 61-62 • Contact Hours: 68-72
 Associate Dean: Pam Miller

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

| | | | |
|-----|-----|-------------------------------------|---|
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| PLS | 141 | Introduction to American Government | 3 |

PROGRAM REQUIREMENTS 39-40 CREDIT HOURS

| | | | |
|------|-----|---|-----|
| BIO | 101 | Introduction to Biology OR | |
| BIO | 151 | General Biology I OR | |
| BIO | 152 | General Biology II | 4 |
| CIS | 104 | Introduction to Programming Logic | 3 |
| ESC | 110 | Environmental Geology OR | |
| ESC | 121 | Physical Geology | 4 |
| ESC | 210 | Remote Sensing | 3 |
| GEO | 111 | Environmental Geography | 3 |
| GEO | 121 | World Geography | 4 |
| GEO | 150 | Cartography | 3 |
| GIS | 110 | Introduction to Geographic Information Systems I | 3 |
| GIS | 120 | Introduction to Geographic Information Systems II | 3 |
| GIS | 130 | Advanced Concepts in GIS | 3 |
| GIS | 150 | Global Positioning Systems | 3 |
| GIS | 285 | Work-Based Learning-GIS | 1-2 |
| STAT | 200 | Statistics | 3 |

ADDITIONAL REQUIREMENTS CHOOSE 9 CREDIT HOURS

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

Continued...

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | | |
|-----|-----|--|-----------|
| BIO | 101 | Introduction to Biology | OR |
| BIO | 151 | General Biology I | OR |
| BIO | 152 | General Biology II | |
| CIS | 104 | Introduction to Programming Logic | |
| COM | 111 | Public Speaking | OR |
| COM | 170 | Interpersonal Communication | |
| ENG | 111 | English Composition I | |
| GIS | 110 | Introduction to Geographic Information Systems I | |

SEMESTER II (WINTER)

| | | | |
|-----|-----|---|--|
| ENG | 112 | English Composition II | |
| GEO | 111 | Environmental Geography | |
| GIS | 120 | Introduction to Geographic Information Systems II | |
| GIS | 150 | Global Positioning Systems | |
| PLS | 141 | Introduction to American Government | |

SEMESTER III (FALL)

| | | | |
|--------------------------|-----|--|-----------|
| ESC | 110 | Environmental Geology | OR |
| ESC | 121 | Physical Geology | |
| ESC | 210 | Remote Sensing | |
| GIS | 130 | Applications in Geographic Information Systems | |
| STAT | 200 | Statistics | |
| 1 Additional Requirement | | | |

SEMESTER IVI (WINTER)

| | | | |
|--------------------------|-----|-------------------------|--|
| GEO | 121 | World Geography | |
| GEO | 150 | Cartography | |
| GIS | 285 | Work-Based Learning-GIS | |
| 2 Additional Requirement | | | |

Legal Assistant

Legal Assistant

Associate of Applied Science • Program Code: 276

Credit Hours: 65 • Contact Hours: 65

Associate Dean: Pam Miller • 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.

| GENERAL EDUCATION REQUIREMENTS | | | 16 CREDIT HOURS |
|---------------------------------------|-----|--|------------------------|
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) OR | |
| MATH | 120 | Intermediate Algebra | 4 |
| PLS | 141 | Introduction to American Government | 3 |

| PROGRAM REQUIREMENTS | | | 49 CREDIT HOURS |
|-----------------------------|-----|--------------------------------------|------------------------|
| B | 211 | Accounting Principles I | 4 |
| B | 290 | Business Law I | 3 |
| B | 291 | Business Law II | 3 |
| CJ | 207 | Criminal Law | 3 |
| LA | 200 | Law Office Management & Legal Ethics | 3 |
| LA | 201 | Research, Writing & Analysis I | 3 |
| LA | 202 | Research, Writing & Analysis II | 3 |
| LA | 203 | Litigation Preparation & Procedure | 3 |
| LA | 204 | Civil Procedure & Rules of Evidence | 3 |
| LA | 205 | Real Estate Law | 3 |
| LA | 206 | Probate Law | 3 |
| LA | 207 | Family Law | 3 |
| LA | 208 | Tort Law | 3 |
| LA | 210 | Internship Paralegal | 3 |
| PHL | 101 | Introduction to Philosophy OR | |
| PHL | 102 | Introduction to Logic | 3 |
| PSY | 161 | Introduction to Psychology OR | |
| SOC | 171 | Introduction to Sociology | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | | |
|-----|-----|--------------------------------------|--|
| ENG | 111 | English Composition I | |
| LA | 200 | Law Office Management & Legal Ethics | |
| LA | 201 | Research, Writing and Analysis I | |
| PSY | 161 | Introduction to Psychology OR | |
| SOC | 171 | Introduction to Sociology | |
| PLS | 141 | Introduction to American Government | |

Continued...

SEMESTER II (WINTER)

| | | |
|------|-----|--|
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |
| ENG | 112 | English Composition II |
| LA | 202 | Research, Writing & Analysis II |
| LA | 203 | Litigation Preparation & Procedure |
| MATH | 112 | Beginning and Intermediate Algebra (Part II) OR |
| MATH | 120 | Intermediate Algebra |
| PHL | 101 | Introduction to Philosophy OR |
| PHL | 102 | Introduction to Logic |

SEMESTER III (FALL)

| | | |
|----|-----|-------------------------------------|
| B | 211 | Accounting Principles I |
| B | 290 | Business Law I |
| CJ | 207 | Criminal Law |
| LA | 204 | Civil Procedure & Rules of Evidence |
| LA | 205 | Real Estate Law |

SEMESTER IV (WINTER)

| | | |
|----|-----|----------------------|
| B | 291 | Business Law II |
| LA | 206 | Probate Law |
| LA | 207 | Family Law |
| LA | 208 | Tort Law |
| LA | 210 | Internship Paralegal |

Legal Assistant

Certificate of Development • Program Code: 177

Credit Hours: 21-22 • Contact Hours: 21-22

Associate Dean: Pam Miller • 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

18-19 CREDIT HOURS

| | | | |
|-----|-----|------------------------------------|-----|
| B | 111 | Accounting Procedures OR | |
| B | 211 | Accounting Principles I | 3-4 |
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| LA | 200 | Law Office Management & Ethics | 3 |
| LA | 201 | Research Writing & Analysis I | 3 |
| LA | 203 | Litigation Preparation & Procedure | 3 |

ADDITIONAL REQUIREMENTS

CHOOSE 3 CREDIT HOURS

| | | | |
|----|-----|-----------------|---|
| LA | 205 | Real Estate Law | 3 |
| LA | 206 | Probate Law | 3 |
| LA | 207 | Family Law | 3 |
| LA | 208 | Tort Law | 3 |

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:

SEMESTER I (FALL)

| | | | |
|--------------------------|-----|--------------------------------|---|
| ENG | 111 | English Composition I | 3 |
| LA | 200 | Law Office Management & Ethics | 3 |
| LA | 201 | Research Writing & Analysis I | 3 |
| 1 Additional Requirement | | | |

SEMESTER II (WINTER)

| | | | |
|-----|-----|------------------------------------|-----|
| ENG | 112 | English Composition II | 3 |
| B | 111 | Accounting Procedures OR | |
| B | 211 | Accounting Principles I | 3-4 |
| LA | 203 | Litigation Preparation & Procedure | 3 |

Natural Sciences

Grape Growing and Wine Making

Certificate of Development • Program Code: 147

Credit Hours: 18 • Contact hours: 21

Associate Dean: Pam Miller

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 | Fundamental of 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 | Introduction to Biology |
| CIS | 100 | Introduction to Computers |
| VNW | 110 | Introduction to Viticulture |

SEMESTER II (WINTER)

| | | |
|-----|-----|--------------------------|
| CEM | 101 | Fundamental of Chemistry |
| VNW | 120 | Introduction to Enology |
| VNW | 285 | Viticulture Internship |

Landscape & Nursery or Applied Plant Science

Associate of Applied Science • Program Code: 247

Credit Hours: 60 • Contact Hours: 62

Associate Dean: Pam Miller • MSU Contact: Brian Matchett

In cooperation with Michigan State University

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

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 OR | |
| ECO | 112 | Microeconomics | 3 |
| ENG | 111* | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| MATH | 110 | Beginning and Intermediate 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 | Interpersonal Communication |
| ENG | 111 | English Composition I |
| MATH | 110 | Beginning and Intermediate Algebra (Part I) |
| CIS | 100 | Introduction to Computers |

SEMESTER II (WINTER)

| | | |
|----------|-----|---------------------------|
| CEM | 101 | Fundamentals of Chemistry |
| ECO | 111 | Macroeconomics OR |
| ECO | 112 | Microeconomics |
| ENG | 112 | English Composition II |
| Elective | | |

Continued...

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 |

ADDITIONAL REQUIREMENTS**CHOOSE 6-9 CREDITS****MSU Course Options**

| | | | |
|-----|-----|--|----------------|
| 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 Course Options

| | | | |
|------|-----|--------------------------------------|---|
| 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 |

SUMMARY OF CREDITS**AAS IN LANDSCAPE & NURSERY OR APPLIED PLANT SCIENCE****CREDIT HOURS**

| | |
|------------------------------|-----------|
| NCMC Program Requirements | 23 |
| MSU and NMC required courses | 19 |
| MSU Concentration courses | 9-12 |
| NCMC and MSU electives | 6-9 |
| NCMC DEGREE TOTAL | 60 |

Viticulture and Enology

Associate of Applied Science • Program Code: 246

Credit Hours: 62-63 • Contact hours: 65-66

Associate Dean: Pam Miller

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 www.vesta-usa.org.

GENERAL EDUCATION REQUIREMENTS 13 CREDIT HOURS

| | | | |
|------|-----|-----------------------------|---|
| ENG | 111 | English Composition I | 3 |
| ENG | 112 | English Composition II | 3 |
| COM | 111 | Public Speaking OR | |
| COM | 170 | Interpersonal Communication | 3 |
| MATH | 100 | Mathematical Reasoning | 4 |

PROGRAM REQUIREMENTS 28-29 CREDIT HOURS

| | | | |
|-----|-----|---------------------------------|-----|
| B | 111 | Accounting Procedures OR | |
| B | 211 | Principles of Accounting I | 3-4 |
| B | 161 | Introduction to Business | 3 |
| BIO | 101 | Introduction to Biology | 4 |
| CEM | 101 | Fundamental of 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 |

VESTA PROGRAM REQUIREMENTS 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 |

Continued...

ADDITIONAL REQUIREMENTS

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

CHOOSE 6 CREDITS

3
3
1
1
1
3
3
3

SUGGESTED SEQUENCE FOR FULL-TIME STUDENTS:**SEMESTER I (FALL)**

| | | |
|------|-----|-----------------------------|
| B | 161 | Introduction to Business |
| BIO | 101 | Introduction to Biology |
| CIS | 100 | Introduction to Computers |
| MATH | 100 | Mathematical Reasoning |
| VNW | 110 | Introduction to Viticulture |

SEMESTER II (WINTER)

| | | |
|-----|-----|---------------------------------|
| B | 111 | Accounting Procedures OR |
| B | 211 | Principles of Accounting I |
| CEM | 101 | Fundamental of Chemistry |
| ENG | 111 | English Composition I |
| VIN | 211 | Integrated Pest Management |
| VNW | 120 | Introduction to Enology |

SEMESTER III (FALL)

| | | |
|-----|-----|------------------------------|
| ENG | 112 | English Composition II |
| VIN | 148 | Winery Sanitation |
| VIN | 160 | Winery Equipment Operation |
| VIN | 213 | Regional Vineyard Management |
| VNW | 285 | Viticulture Internship I |

SEMESTER IV (WINTER)

| | | |
|-----|-----|-----------------------------|
| COM | 111 | Public Speaking OR |
| COM | 170 | Interpersonal Communication |
| OAS | 101 | Customer Service |
| OAS | 190 | Employability Skills |
| VIN | 246 | Intermediate Enology |
| VIN | 268 | Wine and Must Analysis |

1 Additional Requirements

SEMESTER V (FALL)

| | | |
|-----|-----|---------------------------|
| VNW | 290 | Viticulture Internship II |
|-----|-----|---------------------------|

2-3 Additional Requirements

Viticulture and Enology

Certificate • Program Code: 146

Credit Hours: 32 • Contact hours: 35

Associate Dean: Pam Miller

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 www.vesta-usa.org. Students are reminded that no course with a grade less than a "C" (2.0) will transfer to NCMC.

PROGRAM REQUIREMENTS

CREDIT HOURS 32

| | | | |
|------|-----|----------------------------------|---|
| BIO | 101 | Introduction to Biology | 4 |
| CEM | 101 | Fundamental of 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 | Introduction to Biology |
| CIS | 100 | Introduction to Computers |
| ENT | 140 | Technology and Entrepreneurship |
| ENT | 145 | Advertising and the Entrepreneur |
| MATH | 100 | Mathematical Reasoning |

SEMESTER II (WINTER)

| | | |
|-----|-----|--------------------------------|
| CEM | 101 | Fundamental of Chemistry |
| ENG | 111 | English Composition I |
| ENT | 125 | Legal Issues for Entrepreneurs |
| VIN | 213 | Regional Vineyard Management |
| VNW | 120 | Introduction to Enology |

SEMESTER III (FALL)

| | | |
|-----|-----|-----------------------------|
| VIN | 160 | Winery Equipment Operation |
| VNW | 285 | Viticulture Internship I |
| VNW | 110 | Introduction to Viticulture |

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

| | | |
|--|-----|-----------------------------|
| ENG | 111 | English Composition I |
| ENG | 112 | English Composition II |
| COM | 170 | Interpersonal Communication |
| MATH | --- | Competency |
| General Ed electives according to educational plan | | |

15 CREDIT HOURS

3
3
3
3
3

SPECIALTY AREA

(North Central courses chosen according to educational plan)

15-25

Course Descriptions

AH -- ALLIED HEALTH

AH 107 MEDICAL OFFICE PROCEDURES (F,W) 3(2-2-0)

This course is designed to provide the theoretical basis and practical application for performing clinical procedures in the medical office/clinic setting. Included are introduction to medical assisting; patient assessment including taking a medical history, interviewing patients and vital signs; documentation of care; preparing patients for examinations and procedures; principles of asepsis; phlebotomy; interpersonal communications; and legal issues. PREREQUISITE(S): AH 130, OAS 116, Admission to the MA program.

AH 108 MEDICAL OFFICE PROCEDURES II (F,W) 3(2-2-0)

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 successfully before taking AH 285.

PREREQUISITE(S): AH 107 and AH 180.

AH 116 MATH FOR HEALTH PROFESSIONALS (F) 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(S): Admission to the nursing program.

AH 118 NAVIGATING THE HEALTHCARE SYSTEM (F) 3(3-0-0)

Focuses on the challenges individuals (and especially elder individuals) face in understanding and "navigating" the modern healthcare system in the United States with special emphasis on the balance between an individual's maintaining independence or selecting among a variety of options for assistance. Topics to be addressed include recognition of and access to different levels of the healthcare system (primary, secondary, tertiary care), selection and implementation of different types of insurance (Medicare, Medicaid, private insurers, Medi-Gap, healthcare exchanges), local vs. national solutions in delivery of healthcare options, recognition of patient rights and responsibilities, and the role of patient advocates.

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.

PREREQUISITE(S): 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.

PREREQUISITE(S): BIO 226, BIO 235 and MATH 110 or higher.

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 CERTIFIED NURSE AIDE SKILLS (W) 4(2-2-3)

Advanced preparation for CNA's for the role of assistive personnel and the latest trends in healthcare. The course will cover crossover skills needed to work in varied healthcare settings such as acute, sub-acute, home health, hospices and long-term care. Skills taught include venipuncture, respiratory care, wound care, electrocardiograms, catheterization and other technical skills.

PREREQUISITE(S): AH 154 or current certification as CNA.

AH 280 PHARMACOLOGY (W) 3(3-0-0)

An introduction to the general principles of drugs and how they alter biological functions. Instruction focuses on the effects of specific drugs on body systems including: the autonomic nervous system; and the cardiovascular, respiratory, endocrine and immune systems. In addition, the pharmacology of antibiotics and chemotherapeutics is covered. Special emphasis is placed on the importance of the understanding of pharmacology with respect to nursing practice.

PREREQUISITE(S): BIO 235, BIO 236 and NUR 110.

AH 285 WORK BASED LEARNING - MEDICAL ASSISTANT I (F,W,S) 4(1-0-12)

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. In addition, students will also spend one hour each week in review for the Registered Medical Assistant exam which they can take following successful completion of AH 285 and the Medical Assistant program. 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.

PREREQUISITE(S): AH 107, AH 108, AH 180, OAS 190, OAS 220 and OAS 221.

AH 292 WORK BASED LEARNING - ELDERCARE (W) 1(0-0-4)

Students in this course are placed at a work site where they can deepen their experience working with an elderly population in either a medical, business, legal, or social services capacity. Students will complete task lists for these skills that will be monitored by the Eldercare work-based learning coordinator.

PREREQUISITE(S): Based on student's curriculum.

AH 297 SPECIAL TOPICS - 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.

ANM – ANIMATION**ANM 110 ANIMATION I: INTRODUCTION TO ANIMATION (F, W) 3(3-0-0)**

Introduction to the fundamental methods, practices and principles of animation, while exploring the artisans, both past and present, responsible for establishing the art form. Students will have the opportunity to experiment with the fourth dimension, using various time-based techniques: hand-drawn, also known as frame-by-frame animation, stop-motion, claymation, mixed media, pixilation and much more. Each class session will consist of demonstrations, viewings of related works, hands-on experimentation, as well as critiques. Weekly assignments will further students'

skill sets, as well as their exposure to, and understanding of, time-based art. In particular, students will conduct experiments centered on the 12 concepts and principles of animation. Lastly, students will gain knowledge and experience with post-production practices through the use of various software programs, including, but not limited to, iMovie, Photoshop and After Effects. Upon completion of this course, students will have a basic working knowledge of how art, time and kinesthetics come together to create the lighthearted, narrative art form known as animation.

ANM 120 ANIMATION II: FROM MOTION TO FILM (F, W) 3(3-0-0)

A continuation of Animation I. Students will be asked to further explore the fundamental methods, practices and principles of animation through various mediums. Acquiring skills for acting, character building, sound design and storytelling will be of the utmost importance. As a result, students will begin to address the making of complete films, from concept to post-production. Weekly assignments and experiments will continue expanding each students' understanding of basic animation concepts; a true understanding of these concepts will demand a certain level of refinement where the 12 basic principles of animation are concerned. In order to properly exhibit a complete understanding of these concepts, students will be required to develop, create and present a final animated short in a medium of their choosing. Lastly, students will delve deeper into the post-production process, and will continue the use of various software programs, including, but not limited to, iMovie, Photoshop and After Effects. Upon completion of this course, students will possess the aesthetics, design abilities and time-based skill sets necessary in order to succeed in the animation industry.

PREREQUISITE(S): ANM 110

ANM 140 CHARACTER DESIGN (F) 3(3-0-0)

Characters are the essential component necessary in the successful creation of any and all stories. This course will expose students to the "how" of character design and development, affording them a knowledge base that will serve a crucial role in their professional careers. A large variety of illustrative approaches and techniques will be utilized by students, all of which will give students an opportunity to push themselves and think outside of the provincial box. These techniques include, and are not limited to: two-dimensional forms, sculpture, digital formats, as well as mixed media. Lectures will include demonstrations, discussion, technical exploration, aesthetic inquiry and historically relevant information regarding character design. Research, both historical and modern, experimentation, and client-based projects will be dispersed over the course of the semester, leaving students with quality portfolio pieces.

ANM 297 SPECIAL TOPIC - ANIMATION (Variable) 3(3-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

ANM 299 INDEPENDENT STUDY - ANIMATION (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.

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 (W) 3(3-0-0)

This course introduces the student to the theories, methods and practices of prehistoric archaeology. This will be accomplished through the evaluation, analysis and interpretation of archaeological data from sites around the world.

GENERAL EDUCATION DISTRIBUTION AREA: Social Science

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 post-industrial societies. No prerequisite but ANP 110 is recommended. GENERAL EDUCATION DISTRIBUTION AREA: Social Science

ANP 295 FIELD STUDIES - 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(S): Instructor's permission.

ANP 297 SPECIAL TOPICS - ANTHROPOLOGY (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.

ANP 299 INDEPENDENT STUDY - ANTHROPOLOGY (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.

ARB -- ARABIC**ARB 111 ELEMENTARY MODERN STANDARD ARABIC I (F,W) 5(5-0-0)**

The first of two-term sequence in elementary Arabic. It introduces the students to Modern Standard Arabic while learning about the aspects of Arab culture connected to daily life. This course focuses on the sounds and characters of the alphabet with basic writing of Modern Standard Arabic (MSA) combined with oral basic communication practice. Training in listening, speaking, reading and writing is given.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

ARB 112 ELEMENTARY MODERN STANDARD ARABIC II (F,W) 5(5-0-0)

Enhances proficiency in Arabic and is a continuation of ARB 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 Arabic culture.

PREREQUISITE(S): ARB 111

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

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.

ARC 297 SPECIAL TOPICS - ARCHITECTURE (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.

ARTH -- ART HISTORY**ARTH 110 ART HISTORY I (F, W, S) 3(3-0-0)**

An introduction to the history of painting, sculpture and architecture from prehistoric to Medieval times. Students become acquainted with the arts of the past. Art forms are examined both for individual qualities and for the way they exemplify changes in Western cultural patterns.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities
(formerly ART 105)

ARTH 111 ART HISTORY II (W, S) 3(3-0-0)

A survey of the history of art from the 14th century through the early 20th century. Students will place the arts within the context of world geography, history, politics and religion to understand the relevance of art to contemporary life.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities
(formerly ART 106)

ARTH 112 HISTORY OF NON-WESTERN ART (F) 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
(formerly ART 115)

ARTH 113 HISTORY OF MODERN ART (W) 3(3-0-0)

The study of Modern Art from Cubism through the 21st century.
(formerly ART 117)

ARTH 295 FIELD STUDIES - ART HISTORY (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.

ARTH 297 SPECIAL TOPICS - ART HISTORY (Variable) 3(3-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

ARTH 299 INDEPENDENT STUDY - ART HISTORY (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.

ARTS -- ART STUDIO**ARTS 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.
(formerly ART 100)

ARTS 101 THREE-DIMENSIONAL DESIGN (W) 3(3-0-0)

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.
(formerly ART 102)

ARTS 102 BASIC DRAWING AND 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.
(formerly ART 109)

ARTS 103 COLOR THEORY (F,W) 3(3-0-0)
Explores color properties, color harmonies and systematic color relationships as they pertain to visual communication. This foundation course to help students gain a command of and a confidence in the use of color. (formerly ART 101)

ARTS 104 LIFE DRAWING (W) 3(0-0-0)
An introduction to drawing the figure in various media. Techniques of gesture, contour and proportions, along with their integration into coherent compositions are included. Live, nude models will be employed as subjects for this course. (formerly ART 212)

ARTS 110 DRAWING STUDIO INTENSIVE (F,W) 3(3-0-0)
Allows the student to pursue advanced, independent work in drawing. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn pertinent aspects of drawing in various media.
PREREQUISITE: ARTS 102

ARTS 120 ART FOR EDUCATORS (F) 3(3-0-0)
Students integrate art with other curricula to strengthen student learning in both areas. A strong foundation in the elements and principles of design will underpin all projects. (formerly ART 120)

ARTS 125 ANISHNAABE ART (F) 3(3-0-0)
An introduction to Anishnaabe art of the Great Lakes region. (formerly ART 125)

ARTS 200 CERAMICS I (F,W) 3(3-0-0)
An introduction 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. Students will learn surface design and firing methods. (formerly ART 204)

ARTS 201 CERAMICS II (F,W) 3(3-0-0)
Builds on the knowledge and skills acquired in Ceramics I, with an emphasis on developing throwing and hand building skills. An introduction to glaze composition and an opportunity to explore firing options is included.
PREREQUISITE(S): ARTS 200
(formerly ART 205)

ARTS 204 CERAMICS STUDIO INTENSIVE (F,W) 3(3-0-0)
Allows the student to pursue advanced, independent work in ceramics. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn all aspects of stained glass studio operation.
PREREQUISITE(S): ARTS 201

ARTS 210 JEWELRY I (F, W) 3(3-0-0)
An 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, precious metal clay and the use of tools and equipment. (formerly ART 130)

ARTS 211 JEWELRY II (F, W) 3(3-0-0)
An opportunity for students with experience in metalsmithing 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.
PREREQUISITE(S): ARTS 210
(formerly ART 240)

- ARTS 214 JEWELRY STUDIO INTENSIVE (F,W) 3(3-0-0)**
Allows the student to pursue advanced, independent work in jewelry and fine metals. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn critical aspects of jewelry studio operation.
PREREQUISITE(S): ARTS 211
- ARTS 220 TEXTILES I STRUCTURE (W) 3(3-0-0)**
An introduction to methods that create textile structures. Students will learn the basics of woven, non-woven (felt) and looping (knitting, crochet, netting) methods and how color influences pattern development.
- ARTS 221 TEXTILES II SURFACE (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.
(formerly ART 230)
- ARTS 224 TEXTILES STUDIO INTENSIVE (F,W) 3(3-0-0)**
Allows the student to pursue advanced, independent work in textiles. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn pertinent aspects of a textiles studio operation.
PREREQUISITES: ARTS 220 and ARTS 221.
(formerly ART 232)
- ARTS 225 SUSTAINABLE TEXTILES (F) 3(3-0-0)**
An investigation of the issues of sustainability as they apply to textiles, including clothing and home goods.
- ARTS 230 SURVEY OF GLASS TECHNIQUES I (F) 3(3-0-0)**
A hands-on overview of basic glass forming techniques. Students will experience torch work, kiln work and glass blowing.
(formerly ART 199)
- ARTS 231 SURVEY OF GLASS TECHNIQUES II (W) 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.
PREREQUISITE(S): ARTS 230
(formerly ART 252)
- ARTS 234 GLASS STUDIO INTENSIVE (F, W) 3(3-0-0)**
Allows the student to pursue advanced, independent work in fused, slumped, cast and blown glass. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn all aspects of a glass studio operation.
PREREQUISITE(S): ARTS 231
- ARTS 240 STAINED GLASS I (F,W) 3(3-0-0)**
An introduction to the craft of stained glass. Students will acquire technical skills needed to design and execute medallions and panels of stained glass.
(formerly ART 220)
- ARTS 241 STAINED GLASS II (F,W) 3(3-0-0)**
A continuation of ART 240, Stained Glass I, with greater emphasis on design and execution of larger projects.
PREREQUISITE(S): ARTS 240
(formerly ART 221)
- ARTS 244 STAINED GLASS STUDIO INTENSIVE (F,W) 3(3-0-0)**
Allows the student to pursue advanced, independent work in stained glass. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn all aspects of stained glass studio operation.
PREREQUISITE(S): ARTS 241
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ARTS 250 OIL PAINTING I (F,W) 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.
(formerly ART 114)

ARTS 251 OIL PAINTING II (F, W) 3(3-0-0)

Presents the fundamental principles and techniques of painting. Integration of drawing and design concepts are emphasized. Students work exclusively deals with the medium of oil paint.
PREREQUISITE(S): ARTS 250
(formerly ART 118)

ARTS 254 OIL PAINTING STUDIO INTENSIVE (F, W) 3(3-0-0)

Allows the student to pursue advanced, independent work in oil painting. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn all aspects of a painting studio operation.
PREREQUISITE(S): ARTS 251

ARTS 270 GRAPHIC DESIGN I (F) 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. The course includes a group experience – working with clients to design visual communication strategies; and requires the development of a portfolio of course work.
PREREQUISITE(S): ARTS 100
(formerly ART 213)

ARTS 271 GRAPHIC DESIGN II (W) 3(3-0-0)

Builds upon the aesthetic relationship of type and image as explored in Graphic Design I. Topics will include: the elements of Graphic Design; the writer and the graphic designer; and the impact of digital technology on the practice of Graphic Design. Additionally, the course includes a group experience in which writers and designers work together to create effective message design; and the development of a Final Portfolio, which will help prepare graduates to enter the design marketplace.
PREREQUISITE(S): ARTS 271

ARTS 274 GRAPHIC DESIGN INTENSIVE (W) 3(3-0-0)

Allows the student to pursue advanced, independent work in graphic design. Emphasis will be on helping the student develop an independent working method, formulate a personal style and learn the aspects of a graphic design studio.
PREREQUISITE(S): ARTS 271

ARTS 290 PORTFOLIO DEVELOPMENT (W) 1(1-0-0)

Capstone course teaches how to present artwork in a professional manner. Whether seeking a job or applying to a 4-year college, student will create a polished representation of their body of work.
PREREQUISITE(S): Permission of instructor.
(formerly ART 290)

ARTS 291 THE BUSINESS OF ART (F) 3(3-0-0)

Art is a creative process, but also a business. This course will explore the utilization of modern technology and marketing techniques in selling one's art work, as well as resume and portfolio development, record keeping taxes, and copyright issues.
(formerly ART 245)

ARTS 292 THE BUSINESS OF ART II (W) 3(3-0-0)

A continuation of ART 291, this class will deepen the student's understanding of creating a workable business plan, finding and using various business funding mechanisms (bank, equity, private debt financing, venture capital and grants) and understanding legal issues facing small art businesses and entrepreneurs.
PREREQUISITE(S): ARTS 291

ARTS 295 FIELD STUDIES - ART STUDIO (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.

PREREQUISITES: Permission of instructor.
 (formerly ART 295)

ARTS 297 SPECIAL TOPICS - ART STUDIO (Variable) 3(3-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
 (formerly ART 297)

ARTS 299 INDEPENDENT STUDY - ART STUDIO (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.
 (formerly ART 299)

ASL -- AMERICAN SIGN LANGUAGE

ASL 111 ELEMENTARY AMERICAN SIGN LANGUAGE I (F,W) 3(3-0-0)
 Designed for students who have no or minimal American Sign Language (ASL) skills. This course focuses on some of the ASL vocabulary, grammatical principles and cultural protocols needed to function at a basic level in both work and social conversations. Students will learn to use ASL to introduce themselves, exchange personal information, talk about surroundings, tell where they live, talk about family or friends and tell about activities. Students must have the ability motorically to use one or both hands to form manual signs and the manual alphabet.
 (formerly COM 130)

ASL 112 ELEMENTARY AMERICAN SIGN LANGUAGE II (F,W) 3(3-0-0)
 Building on the skills developed in American Sign Language I, this course focuses on more of the ASL vocabulary, grammatical principles and cultural protocols that students need to function at a basic level in both work and social conversations. Students will learn to give directions, describe others in classifiers, make requests, talk about family and occupations, attribute qualities to others and talking about routines. Students must have the ability motorically to use one or both hands to form manual signs and the manual alphabet.
 PREREQUISITE(S): ASL 111

B -- BUSINESS

B 103 BASIC BUSINESS METHODS (Variable) 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 (Variable) 3(3-0-0)
 Provides a basic introduction to oral and written communication as they are used in a business setting. Students will identify, analyze and practice effective methods of communications 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(S): 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,S) 3(3-0-0)**
An introductory course for business students that is also useful for those in other fields. The course objective is to take students with limited business backgrounds and introduce them to a variety of business topics by reading about and discussing current business activities and problems. Topics include capitalism, communism, socialism, forms of business organizations, the stock market, the bond market, banking, insurance, management, labor relations, accounting information and business ethics. Students will read, watch, discuss and become involved with business topics and problems.
- B 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 of ownership, whether to buy an 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,S) 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.
PREREQUISITE(S): ENG 111 and either ENG 112 or the permission of the instructor.

- B 211 PRINCIPLES OF ACCOUNTING I (F,W) 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 ACCOUNTING PRINCIPLES II (F,W) 4(4-0-0)**
A continuation of the study of accounting principles. The course introduces accounting for the formation and operation of corporations; stocks and bonds; process and job order cost procedures; special reports, statements and analysis; and cash flow statements.
PREREQUISITE(S): B 211.
- B 213 INTERMEDIATE ACCOUNTING I (F) 4(4-0-0)**
A comprehensive study of the fundamental process of accounting, with special emphasis on inventories, investments, intangibles, plant and equipment, long-term liabilities, present and future values, and working capital items.
PREREQUISITE(S): B 212.
- B 214 INTERMEDIATE ACCOUNTING II (W) 4(4-0-0)**
A continuation of B 213, with additional study in accounting for corporate capital, stock, retained earnings, dividends, analysis, pensions, leases and cash flow statements.
PREREQUISITE(S): B 213.
- B 216 FEDERAL TAXATION ACCOUNTING (F) 3(3-0-0)**
A course in the concepts of federal income taxation, emphasizing individual taxpayers. Tax law covering taxable and excludable gross income, deductions, tax-free changes, capital gains and losses, tax credits and depreciation is presented.
PREREQUISITE(S): B 211.
- B 218 COST ACCOUNTING I (W) 3(3-0-0)**
An intensive study of a cost accounting information system. Students learn how management's efforts to achieve organizational objectives rest upon the twin functions of planning and control. In-depth study of the planning function as a decision making process and the control function as a systematic effort by management to organize and marshal natural forces, human behavior and material objects into a coordinated unit in order to meet goals is also included.
PREREQUISITE(S): B 212.
- B 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(S): 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(S): B 152 and B 222
- B 285 WORK BASED LEARNING-BUSINESS (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. Two hours of class room prep are included before starting the WBL

experience. Prerequisites are determined by the curriculum in which the student is enrolled. See WBL Coordinator for a complete list. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with the WBL Coordinator at least 6 weeks before the beginning of the semester.

PREREQUISITE(S): Based on student's curriculum, see WBL Coordinator for a complete list.

B 290 BUSINESS LAW I (F,W) 3(3-0-0)

An introduction to the fundamental principles of laws for business and non-business students. The course covers the laws and regulations affecting business conduct. Content includes the nature and source of laws; the ethics and responsibilities of running a business; business organizations and government regulations. Specific areas of the law will include: constitutional law; criminal law; tort law and other statutory law regulating the conduct of businesses.

B 291 BUSINESS LAW II (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 297 SPECIAL TOPICS - BUSINESS (Variable) 3(3-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

B 299 INDEPENDENT STUDY - BUSINESS (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.

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(S): 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. 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. NO PREREQUISITES, but high school biology or successful completion of BIO 101 or BIO 151 is recommended.

GENERAL EDUCATION DISTRIBUTION AREA: Science

BIO 215 GREEN LIVING (W) 3(3-0-0)

A scientific exploration of the biological and ecological fundamentals of "green living". 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(S): BIO 101, BIO 151 or BIO 152.
- BIO 226 MICROBIOLOGY (F,W) 4(3-2-0)**
An introduction to the world of microorganisms and the application of microbiology to the study of health and disease. The introductory portion of the course includes a survey of the microbial world with emphasis on the basic morphology, physiology, behavior and classification. The application portion of the course covers the problems of the control of microorganisms, the concepts of the host/ parasite interaction and epidemiology. Representative diseases are used frequently as examples and case studies.
PREREQUISITE(S): BIO 235 or college biology background.
GENERAL EDUCATION DISTRIBUTION AREA: Science
- BIO 233 INTRODUCTION TO NATURE STUDY (W) 3(2-2-0)**
This course is designed for students interested in learning about the wildlife and ecology of Northern Michigan. Class activities include wildlife identification, discussion of natural history and ecology, nature journaling and field investigations. Field trips are an essential part of this class and some may occur outside of regular class time. Students will be expected to provide their own transportation. This course is recommended for science majors and for students planning careers in wildlife biology, natural resources, elementary education and science education.
PREREQUISITE(S): BIO 101, BIO 151 or BIO 152.
- BIO 235 GENERAL ANATOMY & PHYSIOLOGY I (F,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.
NO PREREQUISITE(S), but high school 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(S): BIO 235. Lecture and Lab.
GENERAL EDUCATION DISTRIBUTION AREA: Science
- BIO 295 FIELD STUDIES - 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(S): Varies, check with instructor.
- BIO 296 FIELD STUDIES - 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(S): BIO 295 and permission of instructor.
- BIO 297 SPECIAL TOPICS - BIOLOGY (Variable) 3(3-0-0)**
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

BIO 299 INDEPENDENT STUDY - BIOLOGY (Variable) 3(3-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
 PREREQUISITE(S): Satisfactory completion of at least two college biology courses and permission of the instructor.

CAM -- COMPUTER-AIDED MANUFACTURING

CAM 100 INTRODUCTION TO CAM PROGRAMMING (Variable) 1(1-0-0)
 Learn basic responsibilities of a CNC programmer for safety, personal accountability, communication and process planning. Work with the CNC operator/instructor to understand challenges faced in manufacturing setup and operation. Develop a basic understanding of CAM software, G and M codes. Provide the opportunity for the student to review shop math related to programming CNC machines and creating a basic G-code program.
 PREREQUISITE(S): ACT Math score of 17 or higher, Compass Math score of 43 or higher or permission of instructor.

CAM 110 CAM OPERATIONS / WORK HOLDING (Variable) 1(1-0-0)
 Study various CNC work holding operations and setup techniques, understand how to create a program to accommodate the machine setup. Communicate with the CNC operator/instructor to determine the best program for the manufacturing process. Provide the opportunity for the student to review shop math related to programming CNC machines and creating a basic G-code program.
 PREREQUISITE(S): CAM 100

CAM 120 CAM SPINDLE SPEEDS, FEED RATES, CUT (Variable) 1(1-0-0)
 Learn how work holding, material and specific cutting tools affect the spindle speed and feed rates during operation. Develop custom tools in CAM software to match the tool the operator is running in the CNC machines. Demonstrate climb milling, conventional milling, cutter compensation in G-code program, communicate with the operator/instructor your planned operations. Determine best results during manufacturing of part and utilize CAM software to document results of spindle speed and feed rates.
 PREREQUISITE(S): CAM 110

CAM 130 CAM PLANNING FOR VARIOUS MATERIALS (Variable) 1(1-0-0)
 Decipher a print to determine the material and manufacturing processes needed to complete the part. Develop a process plan to control how the part will be manufactured with the CNC mill and lathe. Create G-code programs that utilizes cutter compensation for challenges faced by CNC operator for the mill and lathe to successfully machine the part to print specifications. Communicate to the CNC operator/instructor the intended process, machines and tools used to manufacture a plastic, aluminum and HRS part.
 PREREQUISITE(S): CAM 120

CAM 140 CAM CREATING 3D GEOMETRY AND ASSIGN (Variable) 1(1-0-0)
 Develop 2d and 3d geometry with CAM software to accurately machine the part print within tolerance. Successfully import and export geometry using the CAM software. Assign tools to 3d surfaces to accurately and efficiently manufacture part to print specifications. Determine the length of tool and all necessary factors involved to complete the part successfully. Communicate to the operator/instructor the intended process, tools used and machine setup to manufacture the part.
 PREREQUISITE(S): CAM 130

CAM 150 CAM MULTIPLE SETUP JOBS & DATUM LOC (Variable) 1(1-0-0)
 Identify the datum point on a part print to determine the datum point remains constant in all setups. Use work holes and tooling balls to maintain a constant datum during multiple manufacturing setups. Create G-code programs for multiple setups of the same part geometry using the CAM software. Communicate to the CNC operator/instructor the intended process control plan and tooling used to manufacture part to print specifications.
 PREREQUISITE(S): CAM 140

CAP -- COMPUTER APPLICATIONS**CAP 100 WINDOWS COMPUTERS FOR VERY THE BEGINNER (F) 1(1-0-0)**

Computers can be intimidating for those new to their use. This course is designed as a very basic introduction to Windows-based hardware and software. Students will become comfortable with the Windows 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 email, using search engines, accessing online 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 DESGIN FOR BEGINNERS (Variable) 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 (Variable) 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 (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 I (F,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 intergrating Excel data, utilizing subforms, 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 (W,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 (F,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, PODcasting, TV/video production, VODcasting, 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 (F,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(S): 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(S): 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.
PREREQUISITE(S): CAP 140, CAP 145 or CAP 150 or comparable Adobe experience.
- CAP 297 SPECIAL TOPICS - COMPUTER APPLICATIONS (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.
- CAP 299 INDEPENDENT STUDY - COMPUTER APPLICATIONS (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.

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(S): MATH 110
GENERAL EDUCATION DISTRIBUTION AREA: Science
- CEM 102 FUNDAMENTALS OF BIOORGANIC CHEMISTRY (S) 5(4-3-0)**
An introductory organic and biochemistry class for student entering allied health fields or wishing to prepare for Organic Chemistry, CEM 231. Studies the nomenclature of organic compounds, organic functional groups and their reactivities; stereochemistry, major biomolecules and their metabolism, enzymes and chemistry of heredity. Lecture and Lab.
PREREQUISITE(S): CEM 101 or equivalent.
GENERAL EDUCATION DISTRIBUTION AREA: Science

- CEM 110 CHEMISTRY OF CHOCOLATE (S) 3(3-0-0)**
An examination of the principles of cacao bean harvesting and chocolate processing. It will then look at the chemistry and health issues of cocoa butter and the constituent fatty acids. The presence of antioxidants in chocolate will then be discussed. The next topic will be the chemistry and physiological effect of caffeine and related compounds in chocolate. Finally the class will examine the relationships, if any, between chocolate and obesity, dental health, headaches, exercise performance and acne. There is no chemistry prerequisite. The underlying chemistry will be taught as it is needed. This course does not satisfy General Education Requirements.
- CEM 121 PRINCIPLES OF CHEMISTRY I (F) 5(4-3-0)**
This course deals with the principles of chemical properties, structure and change. Consideration is given to atomic structure, chemical bonding, stoichiometry, thermochemistry, gas laws, atomic properties, periodic table, states of matter. Lecture and Lab.
PREREQUISITE(S): MATH 112 or MATH 120 or higher.
GENERAL EDUCATION DISTRIBUTION AREA: Science
- CEM 122 PRINCIPLES OF CHEMISTRY II (W) 5(4-3-0)**
A continuation of CEM 121. Topics including solutions, kinetics, equilibrium, thermodynamics, acids and bases, electrochemistry, qualitative inorganic analysis and nuclear chemistry are discussed. Lecture and Lab.
PREREQUISITE(S): CEM 121.
- CEM 212 QUANTITATIVE ANALYSIS (F) 4(3-3-0)**
Gravimetric, volumetric, spectroscopic and electroanalytical methods of analysis.
PREREQUISITE(S): CEM 122.
- CEM 231 ORGANIC CHEMISTRY I (F) 5(4-3-0)**
This course deals with the structure, nomenclature, physical properties, preparations and reactions of alkanes, alkenes, alkynes, alcohols and ethers. Structures and reactions are examined in the light of electron theory and energy relations. Lecture and Lab.
PREREQUISITE(S): CEM 122.
- CEM 232 ORGANIC CHEMISTRY II (W) 5(4-3-0)**
A continuation of CEM 231. Topics include the structure, nomenclature, physical properties, preparations and reactions of aromatics, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives and amines. Structures and reactions are examined in the light of electron theory and energy relations. Polymers and biomolecules are also introduced. Lecture and Lab.
PREREQUISITE(S): CEM 231.
- CEM 297 SPECIAL TOPICS - CHEMISTRY (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.

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| CIS -- COMPUTER INFORMATION SYSTEMS |
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- CIS 100 INTRODUCTION TO COMPUTERS (F,W,S) 3(3-0-0)**
The course is a general introduction to computers focusing on computer concepts and terminology and the components and functions of computer system hardware and software. Lab work includes introduction to operating systems, the spreadsheet, word processing and database.
ADVISING NOTE: Students looking for a how-to course in managing their own personal computers should take CAP 100 or CAP 115, respectively, instead of this course.
- CIS 104 INTRODUCTION TO PROGRAMMING LOGIC (F,W) 3(3-0-0)**
Provides the beginning programmer with a guide to developing structured program logic. This course assumes no programming experience and does not focus on any one particular language. It introduces programming concepts and enforces good style and logical thinking. Students will learn basic programming structure, flowcharts and documentation and how to solve difficult structuring problems.

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- CIS 105 VISUAL BASIC PROGRAMMING I (F,W) 3(2-2-0)**
An introduction to programming in a Windows environment using MS Visual BASIC. Students will learn program development tools, object oriented programming techniques and will develop applications by creating objects, user interfaces and procedures. CIS 105 is recommended as a first programming language course for students with minimal programming experience. Students should be skilled in file management within Windows and use of Windows' accessories; if not, these skills should first be acquired in CIS 120.
PREREQUISITE(S): CIS 100
- CIS 115 C++ PROGRAMMING I (W) 3(2-2-0)**
An introductory course in object-oriented design and programming using the C++ language. Sample topics include libraries, data types, expressions, arrays, conditionals and looping functions, custom date types, console and file I/O. (CIS 105 is recommended as a first programming language course for students with minimal programming experience. Students 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 PC OPERATING SYSTEMS I (Variable) 3(2-2-0)**
An introduction to common operating systems for the personal computer. The course introduces the basic Operating Systems functions necessary in both text-based and graphic environments for Operating Systems management. Windows command line is taught to address the security issue in operating systems. Students will learn command shell and write command lines to interact with file system, network and users, and processes and services.
PREREQUISITE(S): CIS 100
- CIS 125 PC HARDWARE (Variable) 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(S): CIS 100
- CIS 140 INTRODUCTION TO UNIX (F) 3(2-2-0)**
This is an in-depth course on the UNIX/Linux operating systems, which are widely used on the Internet and large corporate networks worldwide. Topics include learning the command syntax of the UNIX/Linux operating systems, text editing, file processing, and the file and directory structure of a UNIX/Linux-based computer. Shells, shell scripting and Perl will also be taught.
PREREQUISITE(S): CIS 100 or consent of the instructor.
- CIS 145 ePORTAL DEVELOPMENT (W) 3(2-2-0)**
PHP, Apache and MySQL are the three key open source technologies that form the basis for most active Web servers. The core component of this course is developing e-Commerce websites using the open source AMP (Apache, MYSQL, PHP/Perl) model. The coursework involves creating PHP Web pages, developing database application and security, and integrating PHP with e-commerce and other technologies. Websites are developed with strong links to real world business applications.
PREREQUISITE(S): CIS 105 or any other programming language.
- CIS 150 INTRODUCTION TO DATABASE ADMINISTRATION (F) 3(2-2-0)**
Introduces the concept and provides hands-on experience with database administration. Students will learn how to set up, administer, tune, troubleshoot and secure a robust database system. In addition, this course also introduces fundamental database concepts and simple Structured Query Language (SQL) and exposes the students to database backup and recovery.
PREREQUISITE(S): CIS 100
- CIS 205 C++ PROGRAMMING II (F) 3(2-2-0)**
Advanced C++ Programming, a continuation of CIS 115. Sample topics include arrays, dynamic data types, classes, pointers, references, inheritance, linked lists, stream and file I/O, and Microsoft Foundation Classes. There will also be discussion on current topics related to C++, programming development and the implications of .NET.
PREREQUISITE(S): CIS 115 or equivalent.
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- CIS 215 DATABASE DESIGN AND MANAGEMENT (F) 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(S): CIS 105
- CIS 225 INTRODUCTION TO JAVA PROGRAMMING I (W) 3(2-2-0)**
 An introductory course in object oriented design and programming using the Java language. Sample topics include defining objects from business requirements, classes and objects, data types, operators, conditional logic constructs, looping constructs, arrays and collections, exception handling, file and other I/O, graphical user interface (GUI), event handling, applications and Web based applets and creating HTML documentation using the JavaDoc utility. This course covers 10 of the 13 objectives from the industry recognized Sun Microsystems Java Programmer Certification Exam.
 PREREQUISITE(S): CIS 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(S): 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.
 PREREQUISITE(S): Students must complete all CIS program requirements with at least a 2.75 GPA and arrange scheduling of this course with the CIS advisor at least one semester prior to enrollment.
- CIS 297 SPECIAL TOPICS - COMPUTER INFORMATION SYSTEMS (Variable) 3(2-2-0)**
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
- CIS 299 INDEPENDENT STUDY - COMPUTER INFORMATION SYSTEMS (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.
 PREREQUISITE(S): Permission of the instructor.

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| CJ -- Criminal Justice |
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- 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 INTRO 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 INTRO 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.
PREREQUISITE(S): 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.
PREREQUISITE(S): 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.
- CJ 299 INDEPENDENT STUDY -CRIMINAL JUSTICE (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.

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| CNC -- Computer Numerical Control |
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- CNC 100 INTRODUCTION TO CNC MILLING OPERATIONS (Variable) 2(1-2-0)**
Provides the opportunity for the student to develop the knowledge, skills process and understanding of safety when working with CNC (Computer-Numerically Controlled) milling machines, including basic power-up, machine controls, part set-up, program activation and proofing for CNC milling machines.

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- CNC 102 INTRODUCTION TO CNC LATHE OPERATION (Variable) 1(1-0-0)**
Learn basic responsibilities of a CNC operator for safety, personal accountability, communication, preventative maintenance and process planning when working with CNC lathe. Develop proficiency in basic power-up, machine controls, communication with CNC programmer/instructor, part set-up, tool set-up, program activation and proofing for CNC lathe. Develop a basic understanding of G and M Codes, and edit basic G-code using CNC controls. Provide the opportunity for the student to review shop math related to operating CNC machines and creating a basic G-code program.
PREREQUISITE(S): ACT Math score of 17 or higher, or Compass Math score of 43 or higher or permission of instructor.
- CNC 103 INTRODUCTION TO CNC MILLING OPERATION (Variable) 1(1-0-0)**
Provides the opportunity for the student to review shop math related to operating CNC machines and creating a basic G-code program. Learn basic responsibilities of a CNC operator for safety, personal accountability, communication, preventative maintenance and understand manufacturing process planning when working with CNC mill. Develop proficiency in basic power-up, machine controls, communication with CNC programmer/instructor, part set-up, tool set-up, program activation and proofing for CNC mill. Understand G and M Codes, and edit basic G-code using CNC controls.
PREREQUISITE(S): ACT Math score of 17 or higher, or Compass Math score of 43 or higher or permission of instructor.
- CNC 112 CNC LATHE OPERATIONS AND HOLDING (Variable) 1(1-0-0)**
Explore various CNC lathe operations, setup techniques and understand how to setup a CNC lathe to accommodate the part print and manufacturing process. Communicate with the CNC programmer/instructor to determine the best program for the manufacturing process. Provide the opportunity for the student to review shop math related to operating a CNC lathe and creating a basic G-code program.
PREREQUISITE(S): CNC 102
- CNC 113 CNC MILL OPERATIONS AND HOLDING (Variable) 1(1-0-0)**
Explore various CNC mill operations, setup techniques and understand how to setup a CNC mill to accommodate the part print and manufacturing process. Communicate with the CNC programmer/instructor to determine the best program for the manufacturing process. Provide the opportunity for the student to review shop math related to operating a CNC mill and creating a basic G-code program.
PREREQUISITE(S): CNC 103
- CNC 120 INTRODUCTION TO G-CODE AND CAM-1 FOR CNC (Variable) 3(2-2-0)**
Provides the opportunity for students to develop the knowledge, skills processes and understanding of CNC (Computer-Numerically Controlled) basics, Cartesian Coordinate System, writing G-Code programs and using CAD/CAM systems to create geometry and CNC programs for CNC milling machines.
PREREQUISITE(S): CNC 100
- CNC 122 CNC LATHE SPINDLE SPEED & FEED RATE (Variable) 1(1-0-0)**
Learn how work holding, material and cutting tools change the spindle speed and feed rates during operation. Exercise cutter compensation for custom tools to perform accurately in the CNC lathe. Determine best results during operation for spindle speeds and feed rates and report to the programmer/instructor what was successful in each setup and any problems that occurred during operation.
PREREQUISITE(S): CNC 112
- CNC 123 CNC MILL SPINDLE SPEED & FEED RATES (Variable) 1(1-0-0)**
Learn how work holding, material and cutting tools change the spindle speed and feed rates during operation. Exercise cutter compensation for custom tools to perform accurately in the CNC mill. Determine best results during operation for spindle speeds and feed rates and report to the programmer/instructor what was successful in each setup and any problems that occurred during operation.
PREREQUISITE(S): CNC 113
- CNC 132 CNC LATHE ON BOARD G-CODE EDIT & OPERATION (Variable) 1(1-0-0)**
Compare a part print and the G-code program provided to determine the program will machine the part to match the print specifications. Identify the differences in the program to the print and edit the program to reflect the part print. Verify the adjustments made to the G-code program using the CNC lathe. Compensate for unexpected challenges during the manufacturing process and create a part that matches the print tolerances. Communicate to the CNC programmer/ instructor the documented changes to the G-code program.
PREREQUISITE(S): CNC 122
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CNC 133 CNC MILL ON BOARD G-CODE EDIT & OPERATION (Variable) 1(1-0-0)

Compare a part print and the G-code program provided to determine the program will machine the part to match the print specifications. Identify the differences in the program to the print and edit the program to reflect the part print. Verify the adjustments made to the G-code program using the CNC mill. Compensate for unexpected challenges during the manufacturing process and create a part that matches the print tolerances. Communicate to the CNC programmer/ instructor the documented changes to the G-code program.

PREREQUISITE(S): CNC 123

CNC 180 CNC PROGRAMMING LATHE/MILL INDEPENDENT PROJECT (Variable) 1(1-0-0)

Students will apply the knowledge they have gained from previous CAM or CNC coursework in programming, lathe, or mill operations to produce a final independent project in consultation with the instructor.

PREREQUISITE(S): CAM 150, CNC 132 or CNC 133.

COM -- COMMUNICATION**COM 105 MASS MEDIA (F even years) 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.

COM 111 PUBLIC SPEAKING (F,W,S) 3(3-0-0)

The basic principles of extemporaneous public speaking emphasizing the essential elements of researching and organizing material, analysis of argument and effective delivery.

GENERAL EDUCATION DISTRIBUTION AREA: Communications

COM 121 ORAL INTERPRETATION (W) 3(3-0-0)

An introduction to the analysis, interpretation, rehearsal and oral performance of literature. Students work with selections of prose, poetry and drama written for children and adults.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

COM 170 INTERPERSONAL COMMUNICATION (F,W,S) 3(3-0-0)

Designed to explore and develop an individual's communication skills within the context of interpersonal relationships, small groups and society as a whole.

GENERAL EDUCATION DISTRIBUTION AREA: Communications

COM 211 ADVANCED PUBLIC SPEAKING (F) 3(3-0-0)

An advanced understanding of theories and strategies in the delivery of oral presentations. The emphasis of this course is on analyzing and practicing speech discourse conventions, along with advancing information literacy skills as a key to effective delivery of speeches.

COM 220 PERSUASION & COMMUNICATION (W) 3(3-0-0)

Introduces students to the study and practice of persuasion. Students will examine persuasion in a variety of contexts using both the rhetorical and behavioral science traditions. Students will apply theory and research to practical situations and develop strategies for constructing effective and ethical persuasive messages.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

COM 225 NONVERBAL COMMUNICATION (W) 3(3-0-0)

Focuses on nonverbal communication as it relates to interpersonal, social, business and professional behavior. Students will analyze kinesics, facial expressions, eye contact, body movement and posture, physical characteristics, haptics, chronemics, proxemics, artifacts, paralanguage and environment. Students will also discuss prevalent theories underlying nonverbal behavior.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

COM 250 SMALL GROUP COMMUNICATION (F) 3(3-0-0)

Focuses on small group communication theories, strategies and skills for successful group participation and increases student competency as effective team members and leaders.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

- COM 260 SOCIAL MEDIA & COMMUNICATION** (F) 3(3-0-0)
Identifying the impact of social media on interpersonal relationships. Students will explore communication through different types of social media and apply communication theory to analysis of current social media outlets.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- COM 290 PUBLIC RELATIONS & CRISIS COMMUNICATION** (W) 3(3-0-0)
This course will provide theoretical and practical information for managing communication in civic and commercial contexts. Communication through print, broadcast and digital channels will be discussed as part of today's public information and opinion formation process.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- COM 295 FIELD STUDIES - 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. The student will need instructor approval prior to registration. Course fees will reflect trip expenses.
- COM 297 SPECIAL TOPICS - COMMUNICATION** (Variable) 3(3-0-0)
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
- COM 299 INDEPENDENT STUDY - COMMUNICATION** (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.

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| ECE -- EARLY CHILDHOOD EDUCATION |
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- ECE 200 FOUNDATIONS IN EARLY CHILDHOOD EDUC** (F,W) 3(3-0-0)
Introduces students to 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.
- ECE 205 CURRICULUM AND METHODS** (F,W) 3(3-0-0)
Introduces students to the use of developmentally effective teaching/learning approaches and relationship based instructional strategies and tools as a foundation to support each child's development and learning, in partnership with families and other professionals, through meaningful and challenging curriculum. Topics include the use of reflective practice, content knowledge and resources in academic disciplines, appropriate pedagogy, inquiry tools and resources to create/design, implement and assess learning environments and experiences to promote comprehensive development and learning for each child, family and community.
- ECE 210 INFANTS AND TODDLERS** (F,W) 3(3-0-0)
Introduces students to the unique needs and the developmental capabilities of infants and toddlers during the first three years of life. Emphasis is on adult strategies and sensibilities to provide support for optimal learning and growth in physical, cognitive, social/emotional and language development. Topics covered include theoretical foundations, brain research, family dynamics, observation, documentation and assessment, and play and caregiving as curriculum. Emphasis is on the application of knowledge to educational practices and developmentally appropriate curricula in a variety of early learning settings.
- ECE 215 CHILD GUIDANCE AND COMMUNICATION SKILLS** (F,W) 3(3-0-0)
Introduces students to 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.

- ECE 220 CHILDREN WITH SPECIAL NEEDS (F,W) 3(3-0-0)**
 Introduces students to the study of the diverse learning needs of young children (birth to age 8) and their families. Students will study the historical, political, economic and social implications of special education law and legislation, the developmental characteristics of children at risk and children with special needs and current policies and practices in early childhood special education. Topics covered include strategies for early assessment and intervention, family support, assessment and evaluation practices, curriculum development, embedded interventions, and local, state and national resources.
- ECE 225 ADMINISTRATION OF PROGRAMS (F,W,S) 3(3-0-0)**
 Introduces students to the basic principles of financial, legal, supervisory and administrative procedures used in early childhood education centers. Topics covered include program policies, marketing, health and nutrition, licensing requirements, budget and record keeping, program development, parent/school communication, personnel management, staff development and professionalism.
- ECE 282 ECE PRACTICUM/SEMINAR (F,W) 7(3-0-12)**
 Students actively participate in practicum and field experiences in two of the three early childhood age groups (birth-age 3, 3 through 5, and 5 through 8 years) in a variety of settings that offer early education (early school grades; pre-k through 3rd grade, child care centers and homes, Head Start programs) to use knowledge of child development, appropriate pedagogy, inquiry tools, and resources to design, implement, and assess learning environments and experiences for young children. Seminar hours focus on discussion, reflection, documentation, assessment, interpretation, and analysis of practicum and field experiences to guide and inform practice and promote the professional development of each student in the capstone course of Early Childhood Education Associate Degree Program.
- ECE 299 INDEPENDENT STUDY - EARLY CHILDHOOD EDUCATION (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

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| ECO -- ECONOMICS |
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- 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.
 GENERAL EDUCATION DISTRIBUTION AREA: Social Science

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| ED -- EDUCATION |
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- ED 100 INTRODUCTION TO EDUCATION (Variable) 3(3-0-0)**
 ED 100 is designed for students who are thinking seriously about becoming teachers. This course is important for students transferring to four-year college programs that require supervised classroom experience for admission into the school of education. Students find their own supervising classroom teachers and spend 90 hours in public school observing, documenting their experiences and assisting in the classroom. In addition to the 90 hour commitment, students attend a weekly seminar, discuss, research and deliver presentations on relevant educational issues and develop a professional portfolio.
 PREREQUISITE(S): sophomore standing.

ED 297 SPECIAL TOPICS - EDUCATION (Variable) 3(3-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

ED 299 INDEPENDENT STUDY - EDUCATION (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

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 trauma 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 (W) 5(4-2-0)
 Prepares students to function in emergency medical services within the scope and responsibilities of Medical First Responder. Didactic instruction and hands-on skills lab practice is 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 with a "C" or better to enroll in advanced paramedic courses. PREREQUISITE(S): Valid driver's license, no felony convictions, completed physical examination, immunizations and current health insurance prior to clinical.
 STUDENTS MUST SUBMIT PROOF OF IMMUNITY, COMPLETED PHYSICAL EXAM, PROOF OF INSURANCE AND SUBMIT WAIVER FOR A BACKGROUND CHECK, TO THE NURSING AND ALLIED 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, paramedic well-being, therapeutic communications, lifespan development, history taking, physical exam techniques, assessment based management, medical-legal issues and ethical issues. PREREQUISITE(S): BIO 133 and EMS 110 with a "C" or higher and the ability to take National Registry EMT-Basic exam or sit for EMT-Basic Michigan 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 introduction to cardiac and traumatic emergencies. Upon completion of this class the student will be qualified to sit for the National Registry Advanced EMT exam and, if successful, license in the State of Michigan at the EM-Specialist level. Students will typically complete an Advanced Cardiac Life Support class (ACLS) during this semester. PREREQUISITE(S): BIO 133 and EMS 120 with a "C" or higher. Successful completion of EMT-Basic National Registry Exam.

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 typically complete an advanced trauma skills class (PHTLS or ITLS) during this semester.
PREREQUISITE(S): EMS 130 with a "C" or higher within one year of registration for EMS 220.

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 typically complete an advanced pediatric-specific course (PEPP or PALS) during this semester.

PREREQUISITE(S): EMS 220 with a "C" or higher.

EMS 270 PARAMEDIC FIELD INTERNSHIP (W) 4(0-0-16)

Supervised experience in the pre-hospital care setting in a private paramedic service or an ambulance based paramedic service. This will aid the paramedic student in an understanding of the Advanced Life Support system. This will provide the student with the opportunity to utilize skills as a team member and progress to function as a team leader under the direct supervision of a paramedic in a field setting. Includes directing activities at the scene, delegating patient care responsibilities and providing coordination of events from dispatch to the transfer of patient care to the emergency care physician. Students are required to maintain current immunizations, health insurance and BLS for the professional rescuer.

PREREQUISITE(S): Successful completion of all paramedic program requirements (EMS 110 or equivalent, BIO 133, EMS 120, 130, 220, 230) with a "C" or higher.

ENG -- ENGLISH

ENG 095 COLLEGE PREPARATORY 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 paragraph to essays. They will write, edit and revise expository prose.

NOTE: This course is offered on a Pass-Fail basis and does not count toward graduation. Students must earn a 75% or better to pass.

PREREQUISITE(S): 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)

Strengthens critical writing and reading skills to support written communication in academic and professional environments. Emphasis is placed on critical thinking, problem analysis, research, logical support and structure. Major essays will focus on expository, descriptive, narrative, analytical and argumentative writing.

PREREQUISITE(S): Successful completion of ENG 095, COMPASS score of 63 or higher, or ACT score of at least 18.
GENERAL EDUCATION DISTRIBUTION AREA: English

ENG 112 ENGLISH COMPOSITION II (F,W,S) 3(3-0-0)

Further strengthens critical writing and reading skills to support written communication in academic and professional environments. Emphasis is placed on critical thinking, problem analysis, research, logical support and structure. Major essays will focus on expository, descriptive, narrative, analytical and argumentative writing.

PREREQUISITE(S): Successful completion of ENG 111 or the equivalent.
GENERAL EDUCATION DISTRIBUTION AREA: English

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

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- ENG 210 CREATIVE WRITING I** (F) 3(3-0-0)
A writing course for students who have sufficiently mastered the basic skills in ENG 111 and 112. Emphasis is on developing rhetorical proficiency through a variety of writing exercises, especially imaginative.
PREREQUISITE(S): ENG 111 and 112.
- ENG 213 SHAKESPEARE I** (W even years) 3(3-0-0)
Presents selected works from plays and poetry 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. Special attention will be given to exploring how Shakespeare's plays are translated to stage and/or film.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 215 INTRODUCTION TO POETRY** (W odd years) 3(3-0-0)
This introductory course is designed for students with little or no experience with poetry, but genuine curiosity about it. Students examine many aspects of poetry, both spoken and written, including the terminology necessary for discussing it and the historical and cultural contexts in which it is found.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 217 ADVANCED WRITING** (F even years) 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(S): ENG 112
- ENG 220 CREATIVE WRITING II** (W even years) 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(S): ENG 210 or permission of the instructor.
- ENG 221 BRITISH LITERATURE I** (F even years) 3(3-0-0)
A survey of English literature with emphasis on major writers from Chaucer to Pope.
PREREQUISITE(S): ENG 112 or ENG 130.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 222 BRITISH LITERATURE II** (F odd years) 3(3-0-0)
A survey of British literature with emphasis on major writers from Blake to the present time.
PREREQUISITE(S): ENG 112 or ENG 130.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- 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(S): ENG 112 or ENG 130.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 232 AMERICAN LITERATURE AFTER 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(S): ENG 112 or ENG 130.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- 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(S): ENG 112 or ENG 130.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
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- ENG 241 WORLD LITERATURE, ANCIENT-1700** (F even years) 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.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 242 WORLD LITERATURE, 1700-PRESENT** (F odd years) 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.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 244 MULTICULTURAL LITERATURE** (W) 3(3-0-0)
 An introduction the literature of American minority cultures. Works by (but not limited to) Asian, African American, Native American, Hispanic and Jewish/Yiddish authors will be examined. Students learn the literary tools that aid in discovering and appreciating diverse themes within a contemporary context.
 PREREQUISITE(S): ENG 112 or ENG 130.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 245 INTRO TO LINGUISTICS** (Variable) 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 is it 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,S) 3(5-0-0)
 An examination of mythology with emphasis on Greek and Roman myths. Examines how myths derive from and influence the mind of a culture both socially and aesthetically. The myths are looked at as works of art in their own right and also as metaphors expressing a society's major values, themes and preoccupations.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 251 CONTEMPORARY LITERATURE I** (W even years) 3(3-0-0)
 An examination of contemporary fiction and non-fiction. This course provides students with the opportunity to examine contemporary themes and cultural perspectives through a variety of forms.
 PREREQUISITE(S): ENG 112 or ENG 130.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 252 CONTEMPORARY LITERATURE II** (W odd years) 3(3-0-0)
 An examination of contemporary fiction and non-fiction, covering different readings from those included in ENG 251. This course provides students with the opportunity to examine contemporary themes and cultural perspectives through a variety of forms.
 PREREQUISITE(S): ENG 112 or ENG 130.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- ENG 255 MODERN MYTHOLOGY: TOLKIEN & LEWIS** (F even years) 3(3-0-0)
 An examination of a selection of works by two of the most popular fantasy writers of the 20th century.
- ENG 283 STUDIES IN MAJOR AUTHORS** (W odd years) 3(3-0-0)
 Analyzes and appraises the works of a single author, or the works of several related authors. The course interprets these works by identifying important thematic structures with in the work, discussing the critical reception of those works, as well as estimating the importance of the author's biography on the production and interpretation of these works.
- ENG 290 INTRODUCTION TO WRITING FOR FILM & VIDEO** (W) 3(3-0-0)
 An introduction to the basics of writing for narrative film and video with emphasis on writing for single camera production. Exercises will focus on proper formats, formation of ideas, story, character, and scene development, as well as structure, conflict, locale and theme. Discussion will include the aspects of available technology for screenwriters and available formatting software programs.
 PREREQUISITE(S): ENG 111

- ENG 295 FIELD STUDIES - 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(S): Permission of the instructor.
- ENG 297 SPECIAL TOPICS - ENGLISH** (Variable) 3(3-0-0)
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
- ENG 299 INDEPENDENT STUDY - ENGLISH** (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.

ENGR -- ENGINEERING

- ENGR 101 INTRODUCTION TO ENGINEERING** (Variable) 3(3-0-0)
An introduction to the engineering profession and the engineering problem solving method. Topics will include an overview of the main engineering disciplines, mathematical tools to solve engineering problems, quality control, data analysis, graphical representation and engineering economics. Also included will be a discussion of the four-year engineering programs at various colleges and universities. Students with an interest in pursuing engineering may wish to take this course as a first step in their career.
PREREQUISITE(S): MATH 112 or MATH 120 or higher.
- ENGR 107 ENGINEERING GRAPHICS** (Variable) 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 pro-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** (Variable) 3(3-0-0)
An introduction to alternative and renewable energy. The course will include a survey of past industrial energy practices as background to a review of non-traditional, alternative energy sources. Topics covered may include solar (active/passive and photovoltaic), wind, biomass, hydroelectric, fuel cells, wave and geothermal. Through a historical review and a look towards the future, students will gain knowledge and an appreciation for strengths and weaknesses of traditional and alternative energy sources.
PREREQUISITE(S): 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 (Variable) 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) 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 & PROBLM 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.

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| ESC -- EARTH SCIENCE |
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- ESC 101 INTRODUCTION TO EARTH SCIENCE (F) 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(S): 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(S): 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(S): 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(S): GIS 110.

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(S): ESC 101, ESC 110, ESC 121 or ESC 122.

ESC 295 FIELD INVESTIGATIONS IN GEOLOGY (Variable) 3(3-0-0)
 Exploration of the geologic setting of an area of Michigan and/or elsewhere in North America. Students will learn basic field techniques including: navigation, sampling, data cataloging and field safety. Students will be expected to complete a final presentation of their observations, research techniques and conclusions. Coursework will include classroom work as well as weekend field trips during the semester or weeklong trips outside of the fall/winter semesters. Students may have the opportunities to participate in a multi-year, regional research project and to present their results at a regional conference. Completion of ESC 230 is recommended, but not required.

PREREQUISITE(S): ESC 101, ESC 110, ESC 121 or ESC 122.

ESC 297 SPECIAL TOPICS - EARTH SCIENCE (Variable) 3(3-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

FR -- FRENCH

FR 101 CONVERSATIONAL FRENCH (Variable) 3(3-0-0)
 This course emphasizes speaking and listening proficiency through the acquisition of applied vocabulary and grammar to enable students to use French within and beyond the college setting. Language study and this course promote student expression of multi-cultural sensitivity.

PREREQUISITE(S): One year High School French, FR 111 or Equivalent.

FR 109 TRAVEL FRENCH (Variable) 3(3-0-0)
 Promotes French language speaking; listening proficiency and cultural sensitivity within the context of various situations, such as: customs, airport, restaurant, hotel, store, market and emergencies.

- FR 111 ELEMENTARY FRENCH I (F,W) 4(4-0-0)**
 This course enables students to begin acquiring proficiency in French through a communicative and cultural approach. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. Language study and this course promote student expression of cross-cultural perspectives.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- FR 112 ELEMENTARY FRENCH II (F,W) 4(4-0-0)**
 This course enhances proficiency in French and is a continuation of FR 111. Emphasis is placed on listening and reading for comprehension as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. This course broadens students expression of perspectives and appreciation of French culture.
 PREREQUISITE(S): FR 111.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- FR 211 INTERMEDIATE FRENCH I (F) 4(4-0-0)**
 This course enhances proficiency in French through a communicative, cultural and literature based approach. There is continued emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of French beyond the college setting.
 PREREQUISITE(S): FR 112 or two years of high school French or permission of the instructor.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- FR 212 INTERMEDIATE FRENCH II (F) 4(4-0-0)**
 This course enhances proficiency in French through a communicative, cultural and literature based approach. There is broadened emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of French beyond the college setting.
 PREREQUISITE(S): FR 211 or three years of high school French or permission of instructor.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- FR 297 SPECIAL TOPICS - FRENCH (Variable) 3(3-0-0)**
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
- FR 299 INDEPENDENT STUDY - FRENCH (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.

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| GEO -- GEOGRAPHY |
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- GEO 111 ENVIRONMENTAL 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, earth materials and water bodies. Specific subjects of discussion are population growth, biodiversity, available food and water, and resource use.
 GENERAL EDUCATION DISTRIBUTION AREA: Social Science
- 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 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 online, 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 I. Emphasis will be on advanced techniques in spatial analysis, database management and data automation. Students will be exposed to a broad range of advanced techniques in ArcGIS and various extensions.

PREREQUISITE(S): Introduction to Geographic Information Systems I

GIS 130 ADVANCED CONCEPTS IN GIS (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(S): 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 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. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience.

PREREQUISITE(S): Determined by the curriculum in which the student is enrolled. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with a GIS advisor at least 6 weeks before the beginning of the semester.

HE -- HUMAN ECOLOGY**HE 200 NUTRITION (F,W,S) 3(3-0-0)**

A course covering the nutrient composition of food; functions of nutrients in the body; recommended amount of nutrients to promote health throughout the life cycle; digestion, metabolism and absorption of nutrients in the healthy individual; selection of foods to meet the body's normal nutrient requirements; the meaning of foods to people in religious, cultural, social, psychological and economic contexts; and the relation of food and nutrition of health.

HE 297 SPECIAL TOPICS - HUMAN ECOLOGY (Variable) 1(1-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

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.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

HST 140 CELTS AND NATURE (W) 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 NONVIOLENT ACTIVISM (Variable) 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 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 16th century. Special attention is given to the rise and fall of civilizations and their impact on modern development. PREREQUISITE(S): Minimum 71 Compass Reading score, or minimum 17 ACT Reading score, or ENG 111.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

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 19th century. Special attention is given to colonial and national developments and their influence on modern times.

PREREQUISITE(S): Minimum 71 Compass Reading score, 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.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- 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 & ENTREPRENEUR (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 odd years) 3(3-0-0)**
A historical view of Latin America focusing on the cultural, political and economic factors in Mexico, Central America, South America and the Caribbean. The time frame will include Pre-Columbian inhabitants, European Colonization, as well as 19th and 20th century history.
- HST 270 MICHIGAN HISTORY (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.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities
- 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(S): Permission of the instructor.
- HST 297 SPECIAL TOPICS - HISTORY (Variable) 3(3-0-0)**
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
- HST 299 INDEPENDENT STUDY - HISTORY (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.

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| HTM -- HOSPITALITY MANAGEMENT |
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- 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(S): 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(S): HTM 140

HTM 245 CASINO OPERATIONS AND MANAGEMENT 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(S): 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(S): HTM 140

HTM 285 WORK BASED LEARNING-HOSPITALITY (F,W,S) 2(0-0-8)

Students in this course are placed in a business or industry setting that is directly related to their chosen career. Students will participate in the work environment at a preliminary level, which will depend on individual student ability and knowledge. Students are not responsible for goals of the organization. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience.

PREREQUISITE(S): Determined by the curriculum in which the student is enrolled. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with an HTM adviser at least 6 weeks before the beginning of the semester.

IT -- INFORMATION TECHNOLOGIES**IT 101 NETWORK+ (Variable) 3(3-0-0)**

Introduces computer networking through a combination of demonstrations, lectures, and hands-on labs and online learning modules. 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.

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- 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, discussions 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 server 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 Brian DNS, DHCP and Windows Domains.
PREREQUISITE(S): IT 101, 102 and 112.
- IT 130 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 communications between your private network and the Internet.
PREREQUISITE(S): IT 122
- IT 131 WINDOWS WEB SERVER (Variable) 1.5(1.5-0-0)**
Introduces you to installation, configuration and management of Microsoft Windows Web services. Using Internet Information Services (IIS) on a Windows Web server behind a firewall, you will configure and manage a W3C Standards based website. Focus will be on standards and security. This course helps prepare you for one of the Microsoft Certified Professional examinations.
PREREQUISITE(S): IT 102 or instructor permission.
- IT 141 MANAGING WINDOWS NETWORKS (Variable) 4(4-0-0)**
Implementing, managing, and troubleshooting existing Microsoft Windows networks. Focus will be on the skills generally required in medium to large size organizations spanning 2 to 100 physical locations via Large Area Networks (LANs) and the Internet or Intranets. Additionally, this course will help prepare you for the Microsoft Certified Systems Administrator (MCSA) Certification Examination.
PREREQUISITE(S): IT 130 or instructor permission.
- IT 150 WINDOWS DIRECTORY SERVICES (Variable) 2.5(2.5-0-0)**
Introduces Microsoft Window's Active Directory system. You will plan, configure and administer an Active Directory Domain Infrastructure. You will configure the internal and external Domain Name System (DNS), manage name resolution, schema and replication. Active Directory Services, will be used to manage users, groups, shared folders and network resources, to administer the Domain's resources with group policies.
PREREQUISITE(S): IT 122
- IT 160 ADVANCED HARDWARE AND ROUTING (Variable) 3(3-0-0)**
Through hands-on labs, you will learn to perform router and switch configurations on a LAN and WAN network. Additionally you will learn basic configuration procedures to build a multirouter, multigroup Internet-work that uses LAN and WAN interfaces for the most commonly used routing and routed protocols. This course will help prepare you for the Cisco CCNA Certification Examination.
PREREQUISITE(S): IT 100 and CIS 125 or permission of the instructor.
- IT 161 INTRODUCTORY DIGITAL LOGIC (Variable) 2(2-0-0)**
Introduces the binary and hexadecimal number systems. Binary logic will be used to conduct symbolic calculations in the TCP/IP environment. The lab manual assignments lead to a practical assignment used to develop an understanding of the logical activities necessary for network communications in a TCP/IP environment.
PREREQUISITE(S): IT 101
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- IT 170 CISCO NETWORK FUNDAMENTALS (Variable) 3(3-0-0)**
An introduction to fundamental networking concepts and technologies. Online course materials provided through the Cisco Academy will assist you in developing the skills necessary to plan and implement small networks across a range of applications. Classroom activities will be used to reinforce your knowledge in each area. This is the 1st course of 3 preparing you for the ICND1 section of the Cisco Certified Network Administrator (CCNA) Certification.
- IT 180 CISCO ROUTING PROTOCOLS (Variable) 3(3-0-0)**
The Cisco Certified Network Administrator (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 is the 2nd course of 3 preparing you for the ICND1 section of the CCNA Certification.
PREREQUISITE(S): IT 170
- 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 3rd course of 3 preparing you for the ICND1 section of the Cisco Certified Network Administrator (CCNA) Certification.
PREREQUISITE(S): 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 students 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(S): Instructor Permission.
- IT 201 CISCO WIDE AREA NETWORKS (Variable) 3(3-0-0)**
The Cisco Certified Network Administrator (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(S): 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(S): 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 the different security layers, authentication, authorization and accounting. Students will learn how to harden networks, servers and clients using policies, hardware and software.
PREREQUISITE(S): IT 101 and IT 112.
- IT 270 CAPSTONE PROJECT (Variable) 4(4-0-0)**
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(S): Permission of the instructor.
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- 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(S): 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(S): Instructor Permission.
- IT 280 INTERNSHIP/PROJECT (Variable) 4(4-0-0)**
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.
PREREQUISITE(S): Permission of the instructor
- IT 297 SPECIAL TOPICS - INFORMATION TECHNOLOGY (Variable) 3(3-0-0)**
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
PREREQUISITE(S): Permission of the instructor.
- IT 299 INDEPENDENT STUDY - INFORMATION TECHNOLOGY (Variable) 2(2-0-0)**
This capstone course offers you the opportunity to conduct in-depth studies in your fields of interest. You will make arrangements 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(S): Instructor permission.

JRN -- JOURNALISM

- JRN 102 MEDIA WRITING (Variable) 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 multi-media 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 (Variable) 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, online, 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 a high school or college level journalism or writing course is recommended.
- JRN 295 FIELD STUDIES - JOURNALISM (Variable) 5(5-0-0)**
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(S): Permission of the instructor.

JRN 297 SPECIAL TOPICS - JOURNALISM (Variable) 3(3-0-0)
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

JRN 299 INDEPENDENT STUDY - JOURNALISM (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.

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| LA -- LEGAL ASSISTANT |
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LA 200 LAW OFFICE MNGMT & 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) 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) 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 Paralegal Program Coordinator, to obtain practical experience in the legal field.
 PREREQUISITE(S): Minimum 2.0 GPA required.

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| M -- MARKETING |
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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 & LEADERSHIP EDGE **(F,W)** **3(3-0-0)**
 Everyone "sells" every day...ideas, opinions, choices, plans and products or services. This course will be of special interest to you if your work requires leadership and the ability to influence others; you will become more effective, persuasive and efficient by applying the principles of selling. Major topics include verbal and non-verbal communication, the psychology of buying, the consumer decision process, the selling process and time management.

M 220 MARKETING & MANAGEMENT STRATEGY **(W)** **3(3-0-0)**
 A case study-oriented application and expansion of the principles covered in Intro to Marketing (M 200) and Principles of Management (B 200). You will be involved with topics related to the management of the marketing function: strategic and tactical planning, execution scenarios and decision making regarding product, price, promotion and channels of distribution. Team projects and individual performance are the focus of this course.
 PREREQUISITE(S): B 200 AND M 200 plus (9) additional hours of accounting, business, marketing, management or economics.

M 285 WORK BASED LEARNING-MARKETING **(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. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience.
 PREREQUISITE(S): Determined by the curriculum in which the student is enrolled. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with a Marketing adviser at least 6 weeks before the beginning of the semester.

M 299 INDEPENDENT STUDY - MARKETING **(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

MATH -- MATHEMATICS**MATH 093 PRE-ALGEBRA I (F,W) 2(2-0-0)**

This course, along with MATH 094, 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. Additional topics may be assigned by the instructor as deemed necessary for student success. Students will work independently on content until mastery is attained. Enrollment in this course requires concurrent enrollment in MATH 094. This course is offered on a pass-fail status and does not count toward graduation and will not transfer.

MATH 094 PRE-ALGEBRA II (F,W) 2(2-0-0)

This course, with MATH 093, 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 must be taken concurrently with MATH 093 unless MATH 093 has been completed. This course is offered on a pass-fail status and does not count toward graduation and will not transfer.

MATH 100 MATHEMATICAL REASONING (Variable) 4(4-0-0)

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(S): Successful completion of MATH 093/094 or COMPASS Mathematics score of 43 or ACT Math score of 17.

MATH 110 BEGINNING & INTERMEDIATE ALGEBRA PART I (F,W,S) 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 (Part I) but, not passing Beginning and Intermediate Algebra (Part II) will receive four Math Elective credits.

PREREQUISITE(S): Successful completion of MATH 093/094 or COMPASS Math Score of 43-145 or ACT MATH score of 17-20.

MATH 112 BEG & 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(S): MATH 110 with a grade of "C" or higher.

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(S): COMPASS Mathematics score of 146 or ACT Math score of 21.

MATH 125 MATH 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 "C" or higher or COMPAS mathematics score of 146 or higher, ACT mathematics score of at least 21.

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- MATH 126 MATH 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(S): MATH 125 (or equivalent) with a grade of "C" or higher.
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics
- MATH 130 COLLEGE ALGEBRA** (F,W,S) 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(S): 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 DISTRIBUTION AREA: Mathematics
- MATH 140 TRIGONOMETRY** (F,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(S): 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.
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics
- MATH 150 ANALYTIC GEOMETRY & CALCULUS I** (F,W,S) 5(5-0-0)
MATH 150 is 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(S): 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.
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics
- MATH 210 ANALYTIC GEOMETRY & CALCULUS II** (F,W) 5(5-0-0)
MATH 210 is 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(S): MATH 150 (or equivalent) with a grade of "C" or higher.
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics
- MATH 215 ANALYTIC GEOMETRY & CALCULUS III** (W) 4(4-0-0)
MATH 215 is 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(S): MATH 210 (or equivalent) with a grade of "C" or higher.
GENERAL EDUCATION DISTRIBUTION AREA: Mathematics
- MATH 225 DIFFERENTIAL EQUATIONS** (W) 3(3-0-0)
A course in solving first and second order differential equations with some attention to the nth order equation with constant coefficients. Emphasis is on equations that have applications in the physical sciences and engineering. Topics in differential equations include: linear, separable, homogeneous and exact equations, systems of
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differential equations, solutions by series, numerical methods and the Laplace transform. Use of graphing calculators and current technology will be emphasized.

PREREQUISITE(S): MATH 210 (or equivalent) with a grade of "C" or higher.

GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

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(S): MATH 210 (or equivalent) with a grade of "C" or higher.

GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

MATH 299 INDEPENDENT STUDY - MATH (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.

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 (F,W,S) 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 (F,W,S) 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 (F,W) 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 students. Must have experience playing a band or string instrument.

MU 120 HISTORY OF MUSIC (F,W,S) 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 128 VOCAL TECHNIQUES (F, W) 1(1-0-0)

Gives singers the knowledge and skills to become self-sufficient singers and educators. Topics covered include vocal health, vocal anatomy and pedagogy, as well as the basics of proper diction. Singers will learn about auditioning, microphone technique, improvisation and song interpretation. Ensemble work and conducting as it pertains to singers will be covered, as well as the basics of instructing others to improve their voice.

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.

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| MU 131 | MUSIC THEORY II | (Variable) | 3(3-0-0) |
| A continuation of Music Theory I. PREREQUISITE(S): MU 130 or MU 125. | | | |
| MU 141 | CONTEMPORARY FINGER-STYLE GUITAR | (W) | 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 290 | PERFORMANCE TEACHING PRACTICUM | (Variable) | 2(0-4-0) |
| Teaching techniques studied in real world situations. Emphasis will be upon preparation techniques and self-review of effectiveness in communicating with students. Students will be expected to undergo a self study to identify their own strengths and weaknesses and begin to understand how their own strengths and weaknesses impact the learning experience for the young students they are working with. | | | |
| MU 297 | SPECIAL TOPICS - MUSIC | (Variable) | 3(3-0-0) |
| Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary. | | | |
| MU 299 | INDEPENDENT STUDY - MUSIC | (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. | | | |

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| NISH -- ANISHNAABEMOWIN |
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| NISH 100 | THE WAGANAKISING ODAWAK | (F,W) | 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, casion 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(S): NISH 111 or permission of the instructor. GENERAL EDUCATION DISTRIBUTION AREA: Humanities | | | |
| NISH 150 | ANISINAABEK HEALTH TOPICS | (F even years) | 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 | (W) | 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 ANISHNABEMOWIN I (F,W) 4(4-0-0)

This course enhances proficiency in Anishnaabemowin through a communicative, cultural and literature based approach. There is continued emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of Odawa beyond the college setting.

PREREQUISITE(S): NISH 112

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

NISH 212 INTERMEDIATE ANISHNABEMOWIN II (F,W) 4(4-0-0)

This course enhances proficiency in Anishnaabemowin through a communicative, cultural and literature based approach. There is broadened emphasis on the development of listening, analytical reading, creative writing and speaking. Multi-cultural sensitivity is encouraged as well as real-life application of Odawa beyond the college setting.

PREREQUISITE(S): NISH 211

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

NISH 245 ANISHINAABEWIN LINGUISTICS (W) 1(1-0-0)

The lens of the linguist will be used to analyze Anishinaabewin by studying the language rather than learning the language. General linguistic topics will be explored prior to examining Anishinaabewin the following specific topics: phonology, morphology, syntax semantics, language acquisition and pragmatics.

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.

PREREQUISITE(S): Acceptance into the nursing program.

COREQUISITE(S): NUR 130

NUR 120 NURSING PROCESS (F) 1(1-0-0)

A course designed for licensed practical nurses transitioning to the role of the registered nurse. Emphasizes the nursing process as a critical thinking approach applied to clinical situations. Students will develop care plan entries utilizing the North American Nursing Diagnosis Association criteria.

PREREQUISITE(S): LPN accepted into the AAS in Nursing Program

NUR 130 HEALTH SYSTEMS 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.

PREREQUISITE(S): Acceptance into the Nursing Program.

COREQUISITE(S): NUR 110

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- 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.
PREREQUISITE(S): Acceptance into the nursing program, NUR 110, NUR 130.
COREQUISITE(S): 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.
PREREQUISITE(S): Acceptance into the nursing program, NUR 110, NUR 130.
COREQUISITE(S): NUR 150
- NUR 210 FAMILY HEALTH CONCEPTS (F) 5(3-0-6)**
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. Upon completion of this course, students will be able to provide holistic care to individuals and their families in a variety of acute and community settings.
PREREQUISITE(S): Acceptance into the nursing program, NUR 110, NUR 130, NUR 150 and NUR 170.
COREQUISITE(S): NUR 230 and NUR 250.
- 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.
PREREQUISITE(S): Acceptance in the nursing program, NUR 110, NUR 130, NUR 150, NUR 170.
COREQUISITE(S): NUR 210, NUR 250
- 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 healthcare 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.
PREREQUISITE(S): Acceptance into the nursing program, NUR 110, NUR 130, NUR 150 and NUR 170.
COREQUISITE(S): NUR 210 and 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 healthcare 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.
PREREQUISITE(S): Accepted to the nursing program, NUR 110, NUR 130, NUR 150, NUR 170, NUR 210, NUR 230 and NUR 250.
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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 towards positive, efficient conclusions.
- OAS 103 10-KEY CALCULATOR AND KEYBOARD APPLICATIONS (F,W) 1(1-0-0)**
This course introduces the touch method for entering numbers on a 10-key calculator and keyboard enabling the student to use various mathematical operations to solve business application problems..
- 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, root words and their combining forms used in all fields of allied health professions.
- OAS 117 MEDICAL TRANSCRIPTION (W) 3(3-0-0)**
A primer in medical transcription skills. Medical specialty reports including history and physical examination, discharge summary, consultations report, operation report, radiological report and correspondence are covered. Vocabulary and research of related medical data are also included, with emphasis on accuracy, editing skills, proofreading, charting skills and an introduction to formatting.
PREREQUISITE(S): OAS 115, OAS 122 and 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(S): 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 (Variable) 3(3-0-0)**
Includes diagnostic and procedure coding; basic insurance concepts and terminology used by health insurance carries; completion of claim forms for commercial insurance companies, Blue Cross-Blue Shield of Michigan, Medicare and Medicaid.

- OAS 217 MEDICAL TRANSCRIPTION II (Variable) 3(3-0-0)**
This course expands the transcription skills by the use of dictation in specialty areas of medicine including dictation by professionals who speak English as their second language. Because the course materials to be transcribed are dictated by physicians and/or medical practitioners in realistic settings, the students become accustomed to transcribing dictation that is very similar to that encountered on the job. Students further develop skills in efficient usage of reference materials and medical terminology. Critical thinking/decision making and in-depth proofreading/editing activities are stressed.
PREREQUISITE(S): OAS 116, OAS 117, OAS 122 and OAS 224.
- OAS 220 BEGINNING MEDICAL CODING (F,W,S) 2(2-0-0)**
Introduces the student to the basic concepts of medical billing. Students will learn the difference between ICD-9-CM and ICD-10-CM, CPT and HCPCS coding books. Students will learn the basics of documentation principles, gain insight into coding mechanisms and how to look codes up.
PREREQUISITE(S): AH 130 or BIO 133 and OAS 116.
- OAS 221 BEGINNING MEDICAL BILLING (F,W,S) 2(2-0-0)**
Continues to introduce the student to the basic concepts of medical billing. Students will be introduced to the HCFA 1550 claim form as well as the CMS 1450 claim form for professional and facility billing. Students will also be introduced to major insurance company billing policies including Medicare, Medicaid, Blue Cross Blue Shield, Tricare, Commercial carriers, Workmen's Comp and Disability. Students will be responsible for claim form completion as well as applying ICD-10-CM and CPT codes to claim forms. Students will learn where to locate and apply rules, conventions, and instructions of ICD-10-CM and Chapter specific guidelines as they determine appropriate classification codes.
PREREQUISITE(S): AH 130 or BIO 133 and OAS 116.
- OAS 223 DOCUMENT PROCESSING II (W) 3(3-0-0)**
This course develops speed and accuracy in producing business and personal documents such as letters, manuscripts, outlines, tables, forms and templates, publications, meeting reports and repetitive correspondence. The student concentrates on technique improvement, language arts, and proofreading for perfect copy, decision making and total quality management in using the computer to process documents.
PREREQUISITE(S): OAS 122 with a C (2.0) grade minimum or permission of the instructor.
- OAS 224 TRANSCRIPTION/EDITING (F) 4(4-0-0)**
Instruction in the use of machine dictation and transcription equipment. Specially prepared practice tapes are used for initial learning, with the focus on developing speed and accuracy in transcription. Reinforcement of communication skills including grammar, spelling and vocabulary are also emphasized.
PREREQUISITE(S): Typing and knowledge of word processing.
- OAS 230 ADVANCED MEDICAL CODING ICD-9-CM (Variable) 2(2-0-0)**
The official coding guidelines concerning the most common yet complex diagnosis coding issues are summarized in this course, which is organized by major body system chapter, as found in ICD-9-CM manual. Each chapter is organized by (1) Issues (2) Coding clarification (3) Physician Documentation Issues, and (4) Coding Scenarios. Real life coding problems illustrating the issues are presented with ICD-9-CM solutions.
PREREQUISITE(S): OAS 220 or OAS 216.
- OAS 231 ADVANCED MEDICAL CODING CPT (F,W,S) 2(2-0-0)**
An extension of CPT and HCPCS coding from OAS 220. Students will be introduced to detailed medical history reports, including post-operative reports using the coding guidelines that apply to different cases.
PREREQUISITE(S): OAS 220 and OAS 221, OAS 116, AH 130 or BIO 133.
- OAS 232 ADVANCED MEDICAL CODING ICD 10-CM (F,W) 3(3-0-0)**
Students will use hospital inpatient case scenarios as they apply concepts to ICD-10-CM and ICD-10-PCS coding. Students will learn where to locate and apply rules and guidelines, conventions, and instructions of ICD-10-PCS as they determine appropriate classification codes. The impact of proper code assignment and sequences will be discussed.
PREREQUISITE(S): OAS 220 and OAS 221 and OAS 116; AH 130 or BIO 133.

- OAS 241 ADMINISTRATIVE PROCEDURES (W) 3(3-0-0)**
 A comprehensive study of the duties of administrative assistants, with special emphasis on human relations, organization, job task analysis and communications. Current topics such as business etiquette, prioritizing, ethics, software and equipment choice and team building will be discussed. Handling schedules, planning meetings, making travel arrangements, utilizing communication services and the Internet and multi-tasking are also explored.
 PREREQUISITE(S): OAS 122 with 2.0 minimum grade.
- OAS 242 OFFICE TECHNOLOGY (F) 3(3-0-0)**
 For students interested in new technology used in business and industry that facilitates basic office procedures. Topics may change with new developments, but generally include voice recognition systems, web language and design, OCR and scanning, interpreting and analyzing data using software, trouble-shooting the PC and using Anti-Virus software. Students will further develop communication and scheduling skills using software, PDAs and video/audio conferencing activities. An ideal course for students with sophomore standing.
- OAS 252 MICROSOFT OFFICE FOR WINDOWS (F,W,S) 3(3-0-0)**
 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 MICROSOFT WORD (Variable) 3(3-0-0)**
 Using Microsoft Word for Windows, this course is designed to assist the student in becoming proficient 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. It is 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(2-0-0)**
 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(S): 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. In addition to specific requirements related to that experience, students are required to complete written assessments and evaluation of the experience as it relates to their program. Two hours of class room prep are included before starting the WBL experience.
 PREREQUISITE(S): Determined by the curriculum in which the student is enrolled. A background check and a physical exam may be required by some employers. Minimum 2.0 GPA required. Students should plan on meeting with an OAS adviser at least 6 weeks before the beginning of the semester.
- OAS 297 SPECIAL TOPICS - OFFICE ADMINISTRATION SERVICES (Variable) 3(3-0-0)**
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.
- OAS 299 INDEPENDENT STUDY - OFFICE ADMINISTRATION SERVICES (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 CH'UAN I (F,W) 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,W) 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, Iyengar, Kripalu, Kundalini, Phoenix Rising Yoga Therapy). Yoga II provides a broader scope of this ancient Indian art of health and well-being.
PREREQUISITE(S): PE 112 or equivalent.

PE 115 PERSONAL WELLNESS (F,W) 1(1-0-0)

This is a study of the components of physical health as they relate to each individual's health. Topics include cardio respiratory endurance, muscular endurance, strength, flexibility, nutrition and general health principles. Students will identify the values of high level wellness, how to achieve it and maintain it through their individual lifestyles.

PE 116 INTRO TO PHYSICAL CONDITIONING (F,W,S) 1(0-2-0)

Introductory course for new students. Designed to improve total fitness via an aerobic-based conditioning program. Will include an individual fitness evaluation and prescribed program using various pieces of training equipment and activities to include a resistance circuit and additional recommended bodywork. Students must attend an orientation session before starting class. Following the scheduled orientation session, students will meet course requirements through an open schedule.

CALL (231) 439-6370, EXTENSION 2, TO SCHEDULE A MANDATORY ORIENTATION SESSION!

PE 117 RESISTANCE TRAINING (W) 1(0-2-0)

Instruction in basic skills of muscular strength and endurance development, theories of strength training, equipment and safety in lifting. May be repeated.
PREREQUISITE(S): PE 116

PE 121 T'AI CHI CH'UAN II (F,W) 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.
PREREQUISITE(S): PE 111

PE 132 CORE CONDITIONING (F,W) 1(0-2-0)

Engages students in the conditioning of core muscles and enhance ability in any sport, and functional ability in any activity. Students use body weight, stability balls, floor, dumbbells, balance boards and rubber resistance in standing, sitting, squatting, walking, supine and prone positions.

PE 135 PILATES (F,W) 1(0-2-0)

Pilates emphasizes strength building by adding resistance to the movements that the body naturally makes. The exercises integrated within the Pilates movements aim at identifying and utilizing the core muscles of the body, stabilizing the pelvic and thoracic regions, creating a smooth and precise flow of movement, promoting the harmony of breathing and engaging the mind. The exercises are gentle, yet effective, and undertake the whole-body approach towards fitness.

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| PE 140 | TEAM SPORTS | (W) | 1(0-2-0) |
| Selected team sports instruction and participation. Each offering will carry appropriate subtitle. | | | |
| PE 145 | STREETWISE SELF-DEFENSE | (F,W) | 1(0-2-0) |
| The primary goal of this beginning self-defense class is to increase your mental and physical skills to reduce your potential for being a victim. Through mental preparation and simple defensive techniques you will learn how to defend yourself during any aggressive or life threatening attack. These simple proven skills will work for you on the street, at work or at home without losing your mental focus during an attack. | | | |
| PE 155 | CARDIO KICKBOXING | (W) | 1(0-2-0) |
| Allows the student to participate in a total-body training program that combines an aerobic workout with the movements and techniques of martial arts. | | | |
| PE 216 | PHYSICAL CONDITIONING II | (F,W,S) | 1(0-2-0) |
| Continuation of PE 116 for retuning students. Students will meet course requirements through an open schedule. May be repeated. | | | |
| NOTE: PE 216 is for students who have already taken PE 116. New students should take PE 116. | | | |
| PREREQUISITE(S): PE 116 | | | |
| PE 297 | SPECIAL TOPICS - PHYSICAL EDUCATION | (Variable) | 1(0-2-0) |
| Special Topics courses provide opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. | | | |

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| PHL -- PHILOSOPHY |
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| PHL 101 | INTRODUCTION TO PHILOSOPHY | (F,W) | 3(3-0-0) |
| An introduction to the thinkers, systems and problems of philosophy, along with an examination of the influences of these on the religion, politics, morality, art and literature of the time. | | | |
| GENERAL EDUCATION DISTRIBUTION AREA: Humanities | | | |
| PHL 102 | INTRODUCTION TO LOGIC | (F,W) | 3(3-0-0) |
| This introduction to logic is designed to help the student analyze the arguments found in everyday situations, as well as to sharpen analytic skills. Deductive and inductive techniques are discussed, along with common logical fallacies and strategies of argumentation. | | | |
| GENERAL EDUCATION DISTRIBUTION AREA: Humanities | | | |
| PHL 105 | INTRODUCTION TO ETHICS | (F,W) | 3(3-0-0) |
| An introduction to the study of morality, including theories of right and wrong behavior, value (goodness and badness) and virtue. This course is an interdisciplinary approach to ethics, with examples pulled from all walks of life including but not limited to medicine, business, science, law, communication and sports. Besides providing familiarity with the primary questions addressed within moral philosophy, this course is designed to help students develop their abilities to evaluate and express their own ethical positions and think critically and analytically about ethical issues. | | | |
| GENERAL EDUCATION DISTRIBUTION AREA: Humanities | | | |
| PHL 109 | CONTEMPORARY MORAL ISSUES | (F) | 3(3-0-0) |
| This course is designed to provide students with a general foundation in ethics as well as familiarity with specific contemporary moral issues. In accomplishing the course objectives, students will study methods of effective reasoning, reflect critically upon their own values and ethical standards, and apply their critical thinking skills to specific contemporary moral issues. | | | |
| GENERAL EDUCATION DISTRIBUTION AREA: Humanities | | | |
| PHL 120 | ELDERCARE ETHICS | (W) | 3(3-0-0) |
| Focuses on issues surrounding an individual's aging and possible loss of independence with respect to decisions made in healthcare. Topics to be addressed include: advance care planning, decisional capacity & informed consent, privacy/confidentiality/HIPAA regulations, and potential conflicts of interest. Surveys of consequentialist and non-consequentialist ethical theories (including virtue ethics, libertarianism, utilitarianism) as well as other ethical perspectives (including principlism, paternalism, relativism, feminism). | | | |

PHL 150 DANGEROUS IDEAS (W) 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 - PHILOSOPHY (Variable) 3(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.

PHL 299 INDEPENDENT STUDY - PHILOSOPHY (Variable) 2(2-0-0)

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.

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 healthcare team. Infection, quality assurance and safety, specimen collection techniques for venipuncture and capillary puncture, legal and ethical and professional conduct will be presented. Students will practice techniques for handling, collecting, and processing blood and non-blood specimens for laboratory analysis.

PREREQUISITE(S): High School Graduate, at least 18 yrs of age. COM 170 Interpersonal Communication, OAS 116 Medical Terminology and AH 130 Body Systems and Disease completed with a grade of C+ in each.

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.

PREREQUISITE(S): Completion of PHLB 101 with a C+ or better.

PHO -- PHOTOGRAPHY**PHO 107 DIGITAL PHOTOGRAPHY I (F,W,S) 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 (Variable) 3(3-0-0)

An introduction to current digital imaging technology as relates to the production of photographic imagery. Using digital cameras for field assignments, photo imaging software and pigment ink printers in the digital lab, students will learn how to capture, enhance and print digital images. Prior computer experience is recommended.

PREREQUISITE(S): PHO 100, PHO 107 or Equivalent.

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(S): PHO 100 or PHO 107.

PHO 295 FIELD STUDIES - PHOTOGRAPHY (Variable) 3(3-0-0)

Offers students opportunities to explore topics and activities in photography outside the traditional classroom/lab setting. Descriptions of specific activities, locations, credit values, and student responsibilities will vary and be announced prior to class registration. Course fees will reflect trip expenses.

PREREQUISITE(S): Permission of the instructor.

PHO 297 SPECIAL TOPICS - PHOTOGRAPHY (Variable) 3(3-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

PHO 299 INDEPENDENT STUDY - PHOTOGRAPHY (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

PHY -- PHYSICS

PHY 101 CONCEPTS IN PHYSICS (F,W) 4(3-2-0)
 A qualitative study of select topics in physics including: mechanics, energy, electricity, optics and sound. Intended for non-science students requiring a survey of physics for general education requirements or those students pursuing certification in elementary education. Includes practical laboratory exercises.
 PREREQUISITE(S): MATH 110.
 GENERAL EDUCATION DISTRIBUTION AREA: Science

PHY 210 GENERAL PHYSICS I LECTURE, REVIEW, LAB (F) 5(4-2-0)
 The first semester of a one-year introduction, intended for students who require a trigonometry-based approach to physics. Topics include the principles and practical applications of mechanics (kinematics, dynamics, energy, momentum, simple harmonic motion), fluids and thermal physics. This course includes laboratory work.
 PREREQUISITE(S): MATH 140 or higher.
 GENERAL EDUCATION DISTRIBUTION AREA: Science

PHY 211 GENERAL PHYSICS II LECTURE, REVIEW, LAB (W) 5(4-2-0)
 A continuation of PHY 210. Topics include the principles and practical applications of wave motion, electricity, magnetism, light, optics and modern physics. The course includes laboratory work.
 PREREQUISITE(S): PHY 210 with a grade of C or better.

PHY 230 PHYSICS FOR SCIENTISTS & ENGINEERS I (F) 5(4-3-0)
 An introduction to the principles and practical applications of Mechanics (including kinematics, dynamics, energy, momentum, simple harmonic motion and fluids) and Thermal Physics using concepts from differential and integral calculus. Represents the first semester of a one-year sequence. This course is intended for students who require a calculus-based physics course in preparation for further study in the physical sciences beyond this sequence. The course includes laboratory work.
 PREREQUISITE(S): MATH 150 or higher.
 GENERAL EDUCATION DISTRIBUTION AREA: Science

PHY 231 PHYSICS SCIENTIST & ENGINEERS II (W) 5(4-3-0)
 A continuation of PHY 230. Topics include the principles and practical applications of wave motion, electricity, magnetism, light, optics and modern physics using concepts from differential and integral calculus. The course includes laboratory work.
 PREREQUISITE(S): PHY 230 with a grade of C or better.

PHY 297 SPECIAL TOPICS - PHYSICS (Variable) 3(3-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

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 (F even years) 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 (W even years) 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 STATE AND LOCAL GOVERNMENT (F odd years) 3(3-0-0)

An examination of participatory democracy at the local level of government, and the roles of interest groups in influencing public opinion, voting behavior and public policy. The laboratories for this course are the county, township, city and village: commissions, councils and boards. Interest group organizational models are operational processes are analyzed.

GENERAL EDUCATION DISTRIBUTION AREA: Social Science

PLS 295 FIELD STUDIES IN POLITICAL SCIENCE (Variable) 5(5-0-0)

Offers students opportunities to explore topics and activities in political science outside the traditional classroom/lab setting. Description of specific activities, locations, credit values and student responsibilities will vary and be announced prior to class registration. Course fees will reflect trip expenses.

PREREQUISITE(S): Permission of the instructor.

PLS 297 SPECIAL TOPICS - POLITICAL SCIENCE (Variable) 3(3-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

PLS 299 INDEPENDENT STUDY-POLITICAL SCIENCE (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.

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.

GENERAL EDUCATION DISTRIBUTION AREA: Social Science

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(S): PSY 161

PSY 235 THEORIES OF PERSONALITY (W even years) 3(3-0-0)
 Explores the basic perspectives of personality, and how they relate to the student's understanding of his or her life. Personality psychology is a scientific study that asks such questions as: 1) What are people's traits? 2) What are people's temperaments? 3) What are the implications of these in a person's life? (questions are examined through systematic observations of how and why people behave the way they do). Course will focus on cognitive, cultural, biological, psychodynamic, and trait factors of human personality with practical applications for counseling, health professions, business, education, child care and criminal justice fields.
 PREREQUISITE(S): PSY 161.

PSY 241 ABNORMAL PSYCHOLOGY (F,W,S) 3(3-0-0)
 This course will focus on the nature and causes of psychological disorders, with major focus on the characteristics, development, dynamics and classification, maintenance and treatment of abnormal behavior. Additional emphasis will be placed on various types of psychotherapies and theories of prevention, with an incorporation of current and historical research pertaining to the biological basis for abnormality.
 PREREQUISITE(S): PSY 161
 GENERAL EDUCATION DISTRIBUTION AREA: Social Science

PSY 255 CHILD PSYCHOLOGY (F,W,S) 3(3-0-0)
 Introduces students to a comprehensive study of child development theory and practice covering genetic factors, prenatal and postnatal influences, and the distinctive characteristics of infant, preschool, school age and adolescent development. The course emphasizes how cultural, economic, political, and historical contexts influence children's development and interactions with self, others, family, school, community and world.
 GENERAL EDUCATION DISTRIBUTION AREA: Social Science

PSY 261 DEVELOPMENTAL PSYCHOLOGY (F,W,S) 3(3-0-0)
 This course will examine the physiological and psychosocial lifespan development of humans from conception to death through classroom discussion and lecture as well as individual student projects. Emphasis will be placed on the longitudinal examination of social, emotional, and cognitive development, with a focus on interpersonal relationships with parents, peers and others. Other focus areas will include personality, gender roles, difficulties related to school and work, and the impact of nature and nurture across the lifespan.
 PREREQUISITE(S): PSY 161
 GENERAL EDUCATION DISTRIBUTION AREA: Social Science

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(S): PSY 161

PSY 297 SPECIAL TOPICS - PSYCHOLOGY (Variable) 3(3-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

PSY 299 INDEPENDENT STUDY - PSYCHOLOGY (Variable) 3(0-0-0)
 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.

REC -- RECREATION

REC 110 INTRODUCTION TO OUTDOOR RECREATION (Variable) 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 (Variable) 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.

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| REL -- RELIGION |
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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(3-0-0)
 The story of religion in the United States from the early Puritans to modern pluralism. Emphasis is on the main contributions of religion to American culture; church and state relationships; major trends; contemporary issues; and the religious questions surfacing in modern American art and literature.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities

REL 297 SPECIAL TOPICS - RELIGION (Variable) 3(3-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

REL 299 INDEPENDENT STUDY - RELIGION (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.

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| RUS -- RUSSIAN |
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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, and is a continuation of Elementary Russian I. Emphasis is placed on listening and reading for comprehension, as well as speaking and writing for real-life purposes through an acquisition of applied vocabulary and grammar. This course broadens student expression of perspectives and appreciation of Russian culture.
 PREREQUISITE(S): RUS 111.
 GENERAL EDUCATION DISTRIBUTION AREA: Humanities

RUS 297 SPECIAL TOPICS - RUSSIAN (Variable) 4(4-0-0)
 Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

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 and wellness, career exploration, critical thinking, learning style awareness, project and 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 (Variable) 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 the students who score below 72 on the Compass Reading Test, because it provides more personalized instruction and practice.
PREREQUISITE(S): Score of 64 on the Compass Reading Test.

SD 120 READING FOR COLLEGE SUCCESS (Variable) 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 093, ENG 090 or 095 are required to take SD 125, First Year Experience, within the first two semesters of attendance. Effective Fall 2011.

SD 135 LEADERSHIP & SERVICE LEARNING I (F) 2(2-0-0)

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 cover both historical and current issues of the tribe.

SOC 120 CONTEMPORARY SOCIAL PROBLEMS (F odd years) 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.

GENERAL EDUCATION DISTRIBUTION AREA: Social Science

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 & 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 inequality, 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 (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 (F odd years) 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.

GENERAL EDUCATION DISTRIBUTION AREA: Social Science

SOC 297 SPECIAL TOPICS - SOCIOLOGY (Variable) 3(3-0-0)
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

SOC 299 INDEPENDENT STUDY - SOCIOLOGY (Variable) 3(0-0-0)
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.

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(S): 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(S): 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(S): SPAN 211, Three years of high school Spanish, or permission of the instructor.
GENERAL EDUCATION DISTRIBUTION AREA: Humanities

SPAN 297 SPECIAL TOPICS - SPANISH (Variable) 3(3-0-0)
Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

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) 10(7-4-4)
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 position in 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.

PREREQUISITE(S): Admission to Surgical Technologist program, BIO 226, BIO 235, BIO 236, EMS 101, ENG 111 MATH 112 and OAS 116.

SRG 130 SURGICAL TECHNOLOGIST II (W even years only) 10(7-4-4)

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.

PREREQUISITE(S): Admission to the Surgical Technologist program and completion of SRG 120 with a grade of at least a C+.

SRG 220 SURGICAL TECHNOLOGIST III (F even years only) 10(7-4-4)

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.

PREREQUISITE(S): Admission to the Surgical Technologist program and completion of SRG 130 with a grade of at least a C+.

SRG 230 SURGICAL TECHNOLOGIST IV-EXTERNSHIP (W odd years only) 10(0-0-40)

This course places surgical technologist students in the work-based learning environment of a working operating room for four ten-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.

PREREQUISITE(S): Admission to the surgical Technologist Program and completion of SRG 220 with a grade of at least a C+.

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.

PREREQUISITE(S): Admission to the Surgical Technologist Program, Completion of SRG 220 with "C+" or better.

STAT -- STATISTICS

STAT 200 STATISTICS (F,W,S) 3(3-0-0)

A beginning course in statistics for students majoring in fields using measurements and predictions. Topics include organization of data, measures of central tendency and dispersion, probability, types of distributions (binomial, normal, 't' and chi-square), sampling, testing hypotheses, point and interval estimations, regression and correlation.

PREREQUISITE(S): MATH 130

GENERAL EDUCATION DISTRIBUTION AREA: Mathematics

TDT -- DRAFTING TECHNOLOGIES

TDT 130 CAD I (F) 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) (F,W) 3(3-0-0)

An advanced course in the training and use of Computer-Aided Drafting and Design software (CAD). The primary focus will be on producing two-dimensional (2D) and three-dimensional (3D) drawings. The latest version of Autodesk's AutoCAD software is used in this class. You will generate a variety of drawing types and will gain experience with most AutoCAD features, including printing to a full size plotter.

PREREQUISITE(S): TDT 130 or equivalent AutoCAD experience.

TDT 140 ARCHITECTURAL CAD (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(S): TDT 130 or AutoCAD experience.

TDT 150 MECHANICAL CAD (F) 3(3-0-0)

A further introduction to AutoCAD software, specializing in the Inventor module (formerly Mechanical Desktop). The basic skills and knowledge acquired in TDT 130 (or equivalent) will be expanded to develop three dimensional (3D) and more specialized drawings. Drawing types will include parts and components, assemblies, CNC work and residential and commercial infrastructure. Further experience in layout, design and printing will be gained.

ADVISING NOTE: It is recommended that students have the abilities and knowledge of the topics covered in TDT 130 before enrolling in TDT 150.

PREREQUISITE(S): TDT 130 or AutoCAD experience.

TDT 297 SPECIAL TOPICS - DRAFTING TECHNOLOGIES (Variable) 3(3-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

TDT 299 INDEPENDENT STUDY - DRAFTING TECHNOLOGIES (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.

PREREQUISITE(S): Permission of the instructor.

THF -- THEATRE AND FILM**THF 101 SURVEY OF THE THEATRE (F) 3(3-0-0)**

Survey and appreciation of the different areas of the theatre. Major topics include performance, terminology, acting, improvisation, directing, literature of the theatre, set design, as well as individual and group projects.

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

THF 102 ACTING I (W odd years) 3(3-0-0)

An exploration and introduction to various acting techniques, theories of acting, script and role analysis, characterization, stage make-up, physical and vocal skills. Students engage in improvisation, pantomime, vocal and physical exercises, relaxation and concentration. Scenes from modern plays are performed in class for analysis and evaluation.

THF 250 FILM AND LITERATURE (F even years) 3(3-0-0)

Introduces students to the similarities and differences between cinematic and literary forms by studying and evaluating the links between various genres of film and various literary texts, such as poetry, the theatre, fairy tales, screenplays and the novel. Detailed examination of style, narrative, adaptation, techniques and interpretation in the two art forms in relationship to each other will increase the understanding and appreciation of both.

PREREQUISITE(S): ENG 111

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

THF 270 STAGE CREW ACTIVITY (W odd years) 2(0-4-0)

Application of basic stage craft skills through the fulfillment of a crew position in a major production or touring company. Student has the option to pick a crew specialty-costumes, props, lighting, sound or sets.

THF 275 CLASSIC CINEMA (F even years) 3(3-0-0)

Provides an overview of the techniques, aesthetics, vocabulary and criticism of the cinema in a historical context. As an introduction to classic cinema, this course will establish a sense of both film history's general outline and film theory's most important issues in an active and useful fashion.

PREREQUISITE(S): ENG 111

THF 276 CONTEMPORARY FILM (F, W) 3(3-0-0)

A survey of American film from 1960 to the present. Students will view films of the period and discuss in class and in essays aspects of direction, theme, content, characterization, cinematography and other issues associated with film.

PREREQUISITE(S): English 111

GENERAL EDUCATION DISTRIBUTION AREA: Humanities

THF 280 THE DIRECTORS SERIES (W even years) 3(3-0-0)

An auteurist approach to the works of an individual director or a sampling of major directors, and will consider both the manner in which these directors' personalities are thematically and stylistically expressed in their films, and how their films represent major developments or movements in film aesthetics and history.

PREREQUISITE(S): ENG 111

THF 290 PERFORMANCE PRACTICUM (Variable) 2(0-4-0)

Students will apply their performance skills in a comprehensive practicum experience that involves repeat performances of the same production. The emphasis is upon allowing the students to refine their performance techniques based upon varying performance venues, audiences and learning how to produce a quality performance night after night.

THF 297 SPECIAL TOPICS - THEATRE AND FILM (Variable) 3(3-0-0)

Special topics classes provide students opportunities for focused study with full time or adjunct instructors teaching in their areas of expertise. Topics will vary.

TRK -- Trucking**TRK 100 TRACTOR TRAILER OPERATIONS (Variable) 17(7-8-25)**

Module 1: A cognitive and practical introduction to the trucking industry, vehicle systems and controls, preventive maintenance, basic maneuvering, shifting, backing, coupling and uncoupling, FMC Safety Regulations, handling, documenting, and logging cargo, as well as preparation for the Training Instruction Permit.

Module 2: Extends the practical instruction from Module 1 to the driving range using a variety of rigs and standard safety practices.

Module 3: Accompanies Modules 1 and 2 and provides structured structured work time to complete assignments and review material.

Module 4: Places students with approved carriers for approximately ten weeks of 40 hour per week on-the-road driving.

Must be completed with a grade of "C" or better to qualify for the Certificate of Development.

PREREQUISITE(S): Admission to the Truck Driver Certificate of Development Program.

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 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) 2(0-0-8)

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.

PREREQUISITE(S): VNW 110 AND VNW 120, or approval by associate dean or instructor.

VNW 290 VITICULTURE INTERNSHIP II (Variable) 2(0-0-8)

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.

PREREQUISITE(S): VNW 110, VNW 120, and VNW 285, or approval by associate dean or instructor.

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| WLD -- Welding |
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WLD 100 INTRO TO WELDING TECHNIQUES (Variable) 2(1-2-0)

Introduction to welding equipment, procedures, types, and styles, including shop safety, welding symbols, print interpretation, oxyacetylene or oxy fuel cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW) and flux-ored arc welding (FCAW).

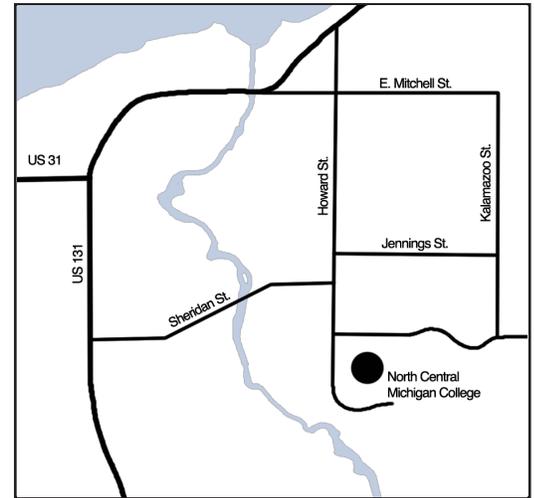
WLD 120 INTERMEDIATE WELDING TECHNIQUES (Variable) 2(1-3-0)

Designed to be flexible according to the skills and interests of the participants and continues the application of various welding techniques to more advanced projects including thermal cutting processes (oxyacetylene or oxy fuel cutting, plasma arc cutting, air carbon arc cutting, braze welding), shielded metal arc welding, gas tungsten arc welding and continuous wire feed welding processes.

PREREQUISITE(S): WLD 100

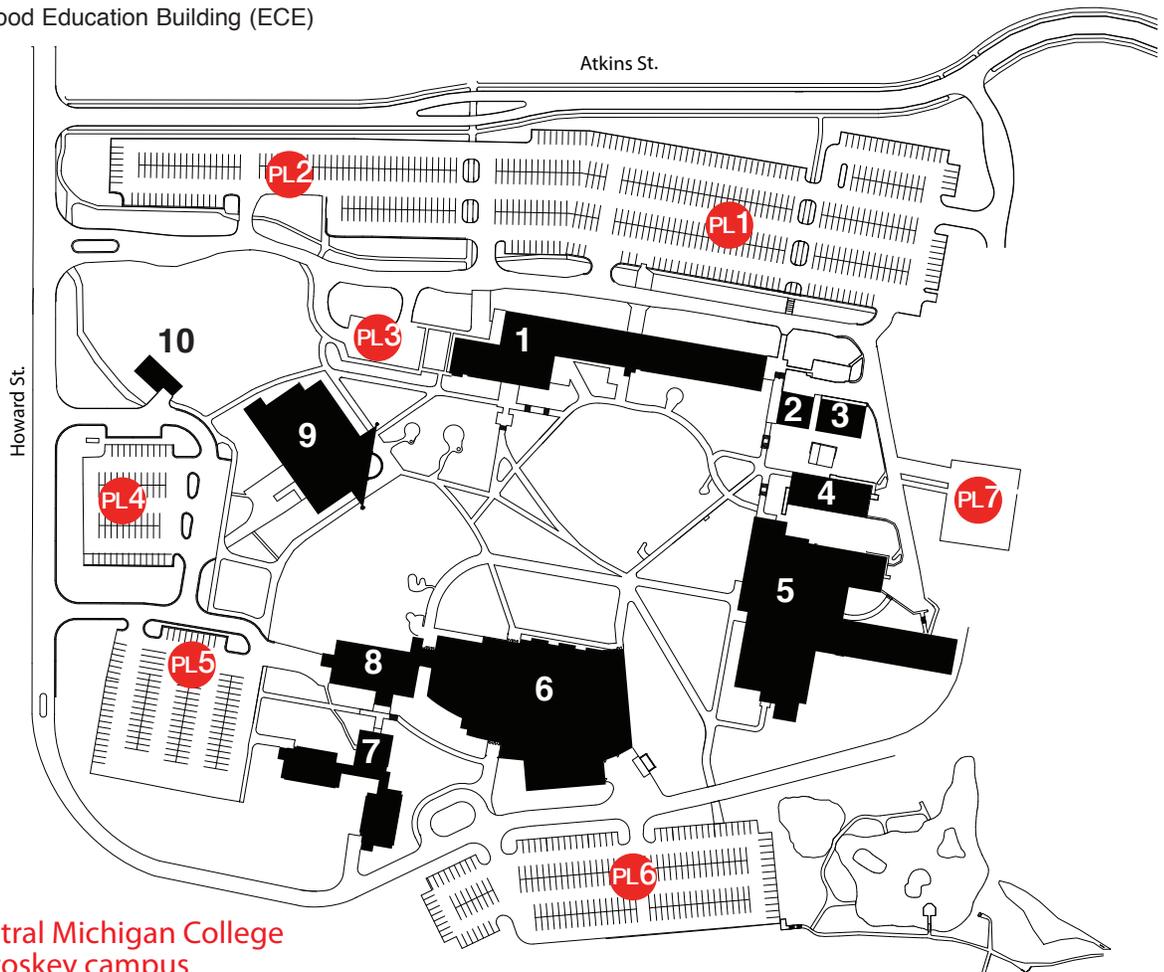
Campus Map

1. Administration/Classroom Building (AD/CL - Rooms 100-160 and 19-70)
 - University Center (UC - Lower Level)
2. Heating Plant
3. Maintenance Building
4. Technology Building
 - TECH - Rooms 218-230
5. Jack and Dorothy Harris Health Education and Science Center (HESC)
 - CHEM - Rooms 303-312
 - BIO - Rooms 320-340
 - Nursing/AH - Rooms 346-368
 - Greenhouse
6. Student and Community Resource Center (SCRC)
 - Bookstore (Room 530)
 - Learning Support Services (LSS - Room 533)
 - Recreation Facilities
7. Residence Hall
8. Student Center Cafeteria (Iron Horse Café)/Conference Center 3&4
 - Student Services (Rooms 503-512)
 - Corporate and Community Education (CCE - Room 536)
9. Library/Conference Center 1&2
10. Early Childhood Education Building (ECE)
11. Natural Area



City of Petoskey

PL Parking Lots



North Central Michigan College
Petoskey campus



North Central Michigan College is an open-door community college based in Petoskey, with additional locations offering classes and services in Cheboygan and Gaylord. North Central's mission is to provide educational, economic and cultural opportunities for student learning, personal growth and community improvement. North Central is an Achieving the Dream Leader College and a Military-Friendly School.